Coworking space: second place, third place, or both?

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Abstract. This study discusses the shifting function of places between First Place, Second Place, and Third Place in a coworking space and workplace by understanding the relationship between spatial designs and behaviors possibility by its nested affordances. In building smart cities, the aspects of workplaces must be considered. The study engaged with the implementation of the character's perception into space, based on Gibson's theory of nested affordances in interactions between perception and action. With affordances as interactive possibilities from particular objects or environments. This research employed a means-end hierarchy method to acknowledge the nested relationship that occurs in two study cases. The study is a literature study about nested spaces in a workspace using secondary data from articles, web, and social media. The study reveals that space or place from a particular feature does not always have the same nested feature and functions as space or place that it occupies, which creates nesting function of places from first place, second place, third place, and vice versa. Showing how smart workplaces accommodates various needs of the workers.

1. Introduction

A smart city contains smart workplaces that facilitate working productivity as well as community and social values. Office workers often stop by in cafes or public spaces to continue their office work. This shows the shifting office functions as a workplace (second place) which is presented in a cafe or public space as a place to socialize (third place). This phenomenon has become increasingly prevalent as more and more people choose to work in urban public spaces than where they work formally. We can acknowledge a public space as a third place with various viewpoints through implementation of character perception into space [1]. The interaction between perception and action can be seen by applying affordances theory as an interactive possibility of an object or environment [1]. A third place can become a series of affordances with various possible nesting functions in other affordances [9].

The shifting functions of places between third place and second place result in some composition of features from first place, second place, and third place. For example, the implementation of coworking spaces and creative offices that can accommodate various needs of work, socialize, and rest. A coworking space itself has aspects of a smart city which accommodates interaction between people and the economy.
This means, coworking space can reduce office rent cost and help the workers to be more focused on their inventions, mobility, and many other. We can see the meeting of multiple functions from the series of available affordances. Presenting the connection between one nested space function in another space function. Nested affordances can be seen from various physical elements, spatial and social boundaries, behavior, and interaction possibilities between people. Therefore, this study will answer the question: How does the relation of the series of affordances that are present in a place affect human activities in it?

Previous studies of the work environment through behavior regulation theory stated that spatial configuration influences worker behavior [3]. Behavior is mapped based on four work modes according to the US Gensler workplace survey (2008) - Focus, Collaborate, Socialize, and Learn. These four modes were mapped through physical elements or partitions as individual or group privacy needs, such as walls, screens, and objects [3,8]. We can see the hierarchy of nested affordances through the means-end hierarchy method, which provides a mechanism to overcome complexity [4].

2. Theory and Literature Review
2.1 First Place, Second Place, Third Place
The definition of space and place can be categorized by the functions and activities contained in it. There are three realms of space: domestic, productive, and social [2]. Based on this, space and place can be categorized into first place, second place, and third place. Each has different physical space and place functions: first place as domestic space, second place as productivity space, and third place as social space [2]. A dwelling is defined as a system that is a subsystem of the environment, accommodating specific systems of various functions, and making its inhabitants an anchor in that environment [6].

A workspace is a place where humans do activities that are generally related to earning a living or living in daily life [2]. The layout can influence someone’s productivity in a workspace or office. The arrangement of physical elements in the room becomes an essential factor in the application needs of workers in the space [3]. Gensler’s (2008) research on workplaces shows that work is usually achieved in four different modes: Focus, Collaborate, Socialize, and Learn. “Focus” mode involves activities in the workplace that require concentration to work alone, think, and analyze. Therefore, the shared workspace needs to ensure that users can focus and work alone when needed with minimal disruption. “Collaborative” mode involves activities in the workplace where an individual works with other individuals or groups to achieve a common goal. The collaboration mode is associated with support for user proximity and build relationships that help them share information and reach more innovative solutions. “Socialize” mode involves interaction at work, creating productive relationships, and common bonds between users to create a sense of togetherness among the occupants of the workplace. “Learn” mode refers to activities to gain new knowledge about a subject or skills that might be obtained through seminars and presentations. Various work environments can provide the best performance by adjusting the needs of the four work modes through the arrangement of features and physical elements that are presented [3].

Third place is a place where relaxation or social activities take place from the residence (first place) and workplace (second place) [2]. A third place is a public place that is often used to meet up outside the realm of home or work that can be called a community living space. It is also defined as a space to facilitate informal interaction. Third place is present between first place and second place, bringing together the evolving human needs. A place to live and work alone is not enough to meet the needs of community activities include interacting and socializing [2].

There are eight characteristics of a third place, according to The Great Good Place, Oldenburg (1989). The first is “On neutral ground” as a gathering place for anyone. The second is “Leveller”, the elimination of all positions or rank differences. The next is “Conversation is the main activity” If a neutral ground presents a place and levelling as the primary and sustainable ‘concept,’ then communication and socializing are the main activities carried out. The fourth is “Accessibility and accommodation” which means it is easy
to access in terms of location and time. The fifth is “The regulars” or people who come continuously and periodically to the place. Then the sixth is “Low profile” which emphasize on the concept of homeliness. The mood is playful, a concept that cheerfulness dominates anxiety/alienation. The last is “A home away from home”, or the presence of the concept of “homelike,” which is a resemblance to home as a pleasant environment, providing comfort, and widespread psychological support [2].

2.2 Nested Affordances
A third place can be a series of affordances with various possible functions nested in other affordances. Affordances are a series of interactive possibilities of an object or environment [1]. Affordances are available behaviors that arise from the relationship between human traits and the properties of their environment, which usually nested with one another. In a way, how humans perceive physical elements in a third place is to look at the relation of human activities with a series of available affordances. The interrelationships between the environment and humans that occur in it create behaviors as social affordances [9]. Social affordances reflect human activities, such as gestures of demand cues that show other individuals the desired pattern of interaction; it often occurs in the interaction of fellow individuals. An action is nested not only in a spatial context but also in a social context [10]. The reason is because someone can feel a variety of affordances for other people, and that these perceptions reflect the ability of the specific actions of others [10].

Nesting is a relational phenomenon between small units and larger units in which a small component is part of a large component, and the relation produces a hierarchy. Unless the hierarchy is unclear, the relation then contains transitions and stacks of existing units [1]. Nesting of a series of affordances is a characteristic of various situations in daily life where the series has a nested hierarchical relationship. The idea of nesting and hierarchy as an environmental explanation can be used to understand the current situation of urban space structure shifts [7].

3. Method
This research employed a means-end hierarchy method to acknowledge the nested relationship that occurs in two study cases as data collections for comparison. The study is a literature study about nested spaces in a coworking space using secondary data from articles, web, and social media. The means-end hierarchy method is one way to visualize the hierarchy of nested affordances, which provides a mechanism to overcome complexity [4]. Rising to a higher level of the hierarchy will make the results simpler, and thus the problem more manageable [4]. Besides, it can show a variety of needs and activities that can occur in a series of affordances.

4. Case Study Explanation
This comparison describes how various place functions are mapped in a workspace or coworking space. Mapping the features of space are analysed based on the limitations and physical elements that exist to see their effects on the possibility of human activity. The possibility of this human activity can then show the likelihood of work modes that can be accommodated in the environment. Data were taken in the form of a coworking space and a creative workplace that apply the concept of shared workspace.

4.1 Second Place and First Place in Third Place (Coworking Space)
Yuanyang Express coworking space aims to present a library-like experience with the presence of elements to work together. In its application, various areas are offered to suit the multiple needs of individual users. Coworking space consists of 3 floors, and one of them is in the basement. There is a wide-open space in the lobby on the first level, confronted with a bar counter as a basis for management and service. A more private
space can be found in the second level and basement areas, suitable for small companies, group work, and individuals.

4.1.1 Individual Private and Public Mapping Area

There is a private cubicle in this area, providing boundaries between individuals in the form of partitions between desks so that the available space is entirely personal. Partitioning serves to minimize visual and auditory disturbances for the function of self-isolation. In the basement, there is a resting room called the "Cat Cave" which is molded on a wall that follows the curves of the human body when lying down. Partition in the form of a wall boundary and the area given is only enough for one person to provide privacy when resting. Those cubicles, resting rooms, and workspaces can accommodate a “Focus” mode that requires high concentration and minimal distraction.
Individual desks area is present in an open space providing boundaries between individuals in the form of
distance and table separation. Even though the space that arises is quite accessible for small discussions,
它可以 still be used for individual work. Rows of small discussion tables near glass walls have partition walls
as boundaries between areas and it can be used for individuals or capacities for up to 4 people. The space
that is present is quite open and has outside visual access with a glass wall partition.

4.1.2 Group Private and Public Mapping Area

Meeting rooms that are limited by a wall fortifies the auditory and visual access. This room is marked with
a yellow floor as an intention to provide intimacy and higher privacy with the impression method "insertion"
box in the form of a meeting room. Meeting rooms are usually placed at the edge of the floor and it does
not directly face the circulation area outside to create a sense of privacy. This space can generally
accommodate “Collaborate” and “Learn” modes, adjusting to the need for negotiations or essential meetings
with presentations.
Figure 5. Details of Yuanyang Express group private and public area.
Source: Diagram by author.

Yellow area mapping is an open area with high enough human circulation to increase its function triggering interaction as a socialization space. There are small discussion tables outside the building that offers views and direct air. The first level is exposed to the bar counter as management and information service settings. While there is no direct barrier between seating for visitors, the visitors and workers at the counter are separated by a bar table with approximately waist height. This table serves to accommodate the activities of workers in the management and service of coworking space. The counter can also facilitate interaction activities between users and work temporarily for individuals while ordering food or drinks directly. Around the bar, there is a small lounge in the form of chairs and a small table in an open space that can accommodate leisure activities. A large open discussion table is located not far from the entrance, this large table does not have a partition, and the boundary between users is only the distance between the chairs that can be adjusted to their individual needs. Under the table, there is also a small insulated drawer to separate each user's belongings. This table can accommodate discussion activities up to a capacity of 12 people. Next to the discussion table area is a small pantry room containing a cabinet and cupboard for storing groceries that can be easily accessed by all users and workers.

A multipurpose room is presented in the basement and the first level that can be used or managed according to their working needs at the time. The multipurpose room on the west side of the first level can function as a retail area for commercial various small products. Therefore, this room has access to buildings that are different from the lobby. If not used as a retail area, this room can be connected directly to the lobby area by opening the glass divider door. The composition of triangular tables in this area can be used for individuals or arranged for group use, resulting in a range of distances experienced by various users. These public spaces, in general, can accommodate various work modes such as Collaborate, Learn, and Socialize because they have high flexibility.

4.2 Third Place in Second Place (Creative Office)
Airbnb CX Hub is a call center workspace that provides a range of environments to accommodate different work styles, allowing individuals to choose the settings that best support their work at any given time. Instead of placing dedicated desks, various sets of physical elements to work together are developed in this workspace. The interior is divided into active and focus areas by a thick brick wall. The active side provides high and even light levels with the use of soft colors and light wood to encourage collaboration. The focus side offers a calmer atmosphere, with more focused lighting in several places to support work with high concentration.
4.2.1 Individual Private and Public Mapping Area

4.2.1.1 Individual Private (Blue)
The mapping of the blue area in this workspace is found in a row of cubicles at the end of the room and attached to the wall so that privacy is more secure because it is far from the gathering center. There are two types of cubicles: with chairs and without chairs. The one with chairs is intended for work activities that take a long time, while the other one is for employees to work temporarily while standing. The partition is in the form of a wall divider that blocks the visual and audio of the employees’ surroundings. This area can accommodate “Focus” work modes according to its function.

4.2.1.2 Individual Public (Green)
There are landings spread out in this area as a temporary standing place of work. In this landing locker, employees can hang their jackets, store goods, and safely charge the laptop overnight—existing limits are distances between users of the different parts of the locker. Also, there is a small table cubicle with boundaries in the form of a divider wall in the middle and attached to the meeting room as the back wall of the cubicle. This small table area can be used to work individually or up to two people with seating facing the open space, which makes this area more public than the cubicle facing the wall for visual blocking. The work modes that can generally be accommodated are “Focus” and “Collaborate”, depends on the number of employees using the area.
4.2.2 Group Private and Public Mapping Area

![Airbnb CX Hub Group Private and Public Area](image1)

**Figure 8.** Airbnb CX Hub group private and public area. Source: archdaily, mapped by author

4.2.2.1 Group Private Area (Red)

In the mapping of the red area, counted several types of meeting rooms adjust to the number and needs of employee activities. There are meeting rooms arranged next to each other with glass partitions on its right and left side to provide sufficient visual access but remain closed to maintain privacy and auditory. Another meeting room has a roof that resembles a house and chimney. This room also has a glass partition on its left and right side that provides visual access out. There are also small meeting rooms with wall partitions and sizable glass windows, and large meeting rooms that can accommodate meetings, negotiating, and presentation activities with a capacity of up to ten people. In general, these meeting rooms can accommodate “Learn” and “Collaborate” work modes.

![Airbnb CX Hub Group Private Area](image2)

**Figure 9.** Details of Airbnb CX Hub detail individual private and public area. Source: Diagram by author

4.2.2.2 Group Public Area (Yellow)

![Airbnb CX Hub Group Public Area](image3)

**Figure 10.** Airbnb CX Hub group Public Area. Source: archdaily, mapped by author
The yellow area is the most common area found in this workspace, following its purpose as open spaces so that employees can go around freely to work anywhere according to their needs. Discussion tables in the form of large tables without partition are present in various corners of the workspace adjacent to the landing, which is the locker of each employee to facilitate access to the storage of their belongings. The boundaries are presented in the form of distances between the seats of employees that they can set themselves.

Various lounges in open spaces at the third level in the form of steps can accommodate a variety of activities from casual work to socializing by freeing positions that can be arranged by each employee. The boundaries are distances between the employees occupying the steps, and the small chairs arranged to face the steps. Next to the open lounge is a multi-layer lounge. Employees can choose the needs of affordances that are present in multilevel lounges that have boundaries between levels and wooden wall bulkheads as partitions between seats. The canteen and kitchen are large open spaces that can accommodate dining and socializing activities up to communal presentations. The cafeteria consists of four large discussion tables arranged adjacent to the kitchen that can be accessed by all employees. Areas in the form of open spaces are flexible; the dominance of work modes that can be accomplished is Socialize, Collaborate, and Learn.

5. Case Study Discussion
Through this discussion, we can see the nesting functions of spaces in a workspace or coworking space. Yuanyang Express coworking space is a third place based on Ray Oldenburg's characteristics implementations in the form of public spaces that are rented and can be used by anyone. It also provides access and locations that support a variety of visitors, as well as being a social space to interact and talk in reviving the place. The Airbnb CX Hub call center is a second place. This workplace implements the concept of an activity-oriented environment and the needs of workers, as this workplace places many sets of elements for working together and socializing.

This analysis uses the concept of means-end hierarchy method to see how the nature and function of the nesting place with the connectedness of work modes, activities carried out in general, the constraints needed, and the possibility of physical affordances that can accommodate the needs of these activities. This connected circuit is derived by the means-end method of affordances through three levels, each level based on different questions, namely Why, What, and How. Based on the work method in the Why row, the activities that can occur in the coworking space are adjusted according to each work mode function in the What section. The events in What section are activities that are found in the data for each workspace. Meanwhile, the How section is an analysis of how activities can be done. From this analysis, we can see what possible physical affordances to accommodate the needs of these activities. Furthermore, we can understand better the primary functions of the existing physical elements, adjusting to the definition and purpose of the first place as a domestic space for rest, second place as a workspace for productivity, and third place as a social space.

5.1 Yuanyang Express

![Figure 11. Means-end hierarchy analysis at Yuanyang Express. Source: Diagram by author](image)
The connected circuit in the Yuanyang Express coworking space, which has a dominant activity, is shown at what level in Figure 4.1. These activities are then categorized as work mode at the top level, which is why that is the reason why activities at what level are carried out. The level How then explains how the activities at the top level can be carried out. For example, self-isolation and concentration activities are activities that are in “Focus” work mode, both of which require minimal distraction and partition restrictions. This can be accommodated with cat cave and private cubicles. At the same time, activities for concentration with area restrictions can also be done in the presence of a dedicated desk that is public. In these spaces, the connection between work modes can be seen. These spaces can accommodate “Focus” and “Collaborate” modes according to the need to concentrate on their own or cooperate and collaborate with others. The primary function of these physical elements is to rest as domestic space (first place) and work (second place). Discussion, conversation, and negotiation are in collaborative work modes. Discussion and conversation are achieved by the closeness between individuals or the absence of partition restrictions as a separator. The existing discussion table or landing can facilitate this activity. Meetings and presentations included in the “Learn” mode are generally achieved with closed spaces, accommodated with meeting rooms and shared workspaces. As for presentations in open spaces, it can be facilitated with a multipurpose room. Recreation is in the “Socialize” mode and is achieved with open spaces which can be facilitated by multipurpose spaces and lounges.

In this coworking space, there are tendencies of spaces function that are present to work (second place), namely with the presence of several physical elements and areas that separate and provide boundaries for individual activities.

### 5.2 Airbnb CX Hub

![Figure 12. Means-end hierarchy analysis at Airbnb CX Hub.](Source: Diagram by author)

Concentration is the activity in the focus work mode obtained with minimal distraction and the existence of partition restrictions. This activity can be facilitated with private cubicles on Airbnb CX Hub. Discussion, conversation, and negotiation, including collaborate work modes. Discussion and conversation can be achieved by the closeness between individuals or the absence of partition restrictions as a separator. The existing discussion table or landing can facilitate this activity. Bargaining and presentations included in the learn mode are generally achieved with a closed room and can be accommodated with a meeting room. For presentations in an open space can be facilitated by the canteen. Recreation is in the socialize mode and is achieved with public spaces which can be facilitated by the cafeteria and lounge.

The Airbnb CX Hub workspace has tendencies of spaces function that are present to socialize (third place), in the form of variations in physical affordances, open spaces, and no absolute boundaries so that it can unite individuals.
6. Conclusion
Coworking spaces can act as a workplace and a social space that touch the aspects of a smart city as a public place. Experiencing various needs from work, socializing, and rest. Through means-end hierarchical mapping and analysis, this study can describe a series of affordances affecting human activities with the implementation of nested functions. In Yuanyang Express, there are tendencies of nested spaces function that are present to work (second place), despite its feature as a third place. The Airbnb CX Hub workspace has tendencies of spaces function that are present to socialize (third place), despite its formal feature as a second place. From the comparison study, we can conclude that space or place from a particular feature does not always have the same nested feature and functions as space or place that it occupies. This means a workplace or a coworking space can be both second place and third place, with a series of affordances that were nested inside. Through this study, we can understand better and obtain concepts for future effective smart workplace designs for various needs of activities.

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