The Presence of Picnic Space in Domestic Environment when COVID-19 Condition as Improving the Quality of Space and Mental Health

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Abstract
The condition of the COVID-19 pandemic since 2020 has shaped changes in daily life, where the use of the living environment has become one of the things that have changed. Activities usually carried out outside the living environment now must be covered in it. In this paper, the domestic environment is understood as where private daily domestic activities usually occur. This paper aims to expand the understanding of picnic space in the domestic environment. Seeing how the picnic space is present in the domestic area has the potential to expand the understanding of space in architecture related to spatial quality. Investigates the relationship between activity and space as the basis for understanding the quality of space in a domestic environment. This paper uses a qualitative method to reveal the various activities and explores how the quality of space in the domestic environment has changed during the COVID-19 pandemic. Data was collected through direct observation, photos, interviews, and further analysis. The study finds that the domestic environment can appear as a picnic space with a relationship between humans and objects or an environment that supports happiness and improves mental health. The emergence of picnic space in the domestic environment occurs through three processes: the relationship between the supporting object, actor, and place, blurring the boundary of virtual and physical, and the relationship between object and atmosphere. The finding can enrich the field of architecture, especially in interpreting space, boundaries, and their relation to the mental health of its users.

Keywords: Domestic environment; picnic space; spatial quality; COVID-19; formation process

1. Introduction
The COVID-19 pandemic condition forces us to be able to adjust our daily activities in the new system. These circumstances are forcing governments, companies, academics, professionals, and workers to find new ways for all societies to function while controlling the spread of disease and inventing vaccines (Maturana et al., 2021). As part of preventing transmission, social distancing has been issued by various countries worldwide. Social distancing can reduce virus transmission by increasing physical distance or reducing the frequency of congregations in socially dense community settings, such as schools or workplaces (Ahmed et al., 2018). People are advised to stay at home to avoid coronavirus (Hinkel, 2020). The existence of activity limits triggers us to rethink and reposition the knowledge about spatiality (Atmodiwirjo & Yatmo, 2020). Activities usually in outdoor or public areas
are now forced to be moved into the domestic environment. Indeed, the situation will lead to various changes in the domestic environment, especially in understanding space and its forming process.

The current pandemic condition makes us stay at home to maintain our health (New Zealand Government, 2020b; Hinkel, 2020). Limiting social interaction, keeping a distance, and limiting going to public spaces make our daily lives far from picnic spaces. Being in a domestic environment makes a person lose the opportunity to carry out recreational habits in open and public spaces. The question is how the domestic environment can provide happiness equal to a picnic space, usually in a public space. Because, after all, picnic activities can improve a person’s quality of life (Fuad & Yatmo, 2017). Therefore, it is necessary to trace the daily activities carried out in the domestic environment to examine the quality of a person’s life when staying at home is happening at this time.

The domestic environment has been understood as private and limited to close family (Cieraad, 2017). In this pandemic of COVID-19 conditions, the domestic environment has changed with various activities. Such as education and learning activities usually carried out in schools, work usually done in the office, and shopping usually done at the market or the mall must be included to be done in the domestic environment. Another significant thing is that recreational activities (picnic), which have been believed to be human activities to get entertainment, happiness, and tranquillity to improve the quality of life (Fuad & Yatmo, 2017), cannot be carried out during this pandemic. The question is, how can humans improve the quality of their lives?

The main discussion in this paper is how the presence of activities that are usually carried out outside appears in the domestic environment. That can be one of the discourses regarding the quality of space, especially the domestic environment. Exploring how the domestic environment has changed during a pandemic, especially concerning mental health, is interesting to explore further.

2. Literature Review

The relationship between humans and their environment can create a different spatial quality (Atmodiwirjo, 2018). Humans undoubtedly adjust activities usually carried out outside the domestic environment, such as the emergence of workspaces inside the home (desks, chairs, laptops), changing the order and meaning of space in the domestic environment into an office. School activities that usually involve many people in the classroom (interaction with friends) are currently being carried out through online media in the domestic environment of the residence. Changes in the house arrangement certainly occur in the process of adjustment to changes in daily activities. On the other hand, the existence of different activities in space makes the space has various meanings. One can interpret differently about each space based on the time and activities that occur (Awan et al., 2011). The atmosphere is one aspect that can construct the space (Zumthor, 2006).

Domestic activities in the outdoor space have been massively discussed, but bringing public activities into the domestic environment is exciting potential to be explored further. This paper argued that pandemic conditions changes of meaning of the domestic environment. Hence, the search about how the domestic environment is used for public activities can expand the understanding of the daily activity-based domestic environment. The argument supports Atmodiwirjo & Yatmo’s (2020) statement, "The COVID-19 pandemic has elicited further awareness on how knowledge about environmental qualities, spatial configurations, and surface performance can minimize the transmission of disease within various spatial settings".

This paper aims to expand the understanding of picnic space in the domestic environment. The discussion of the picnic space developed so far is closely related to public spaces, including gardens, parks, playgrounds, waterfronts, etc. Happiness, peace of mind, and social interaction are considered in a picnic space, where humans do recreation to improve the quality of life. Public space as a place to interact and gather can provide a good quality of life (Carmona, 2003). Hence, the picnic is usually present in the public space and natural environment with beautiful scenery and fresh and pleasant conditions. The presence of open green parks in urban spaces presents picnic spaces in urban spaces.
Yilmaz et al. (2011) state that accesses to green open spaces for recreational purposes plays an essential role in the quality of life of city dwellers.

This paper argues that the current stay-at-home condition allows picnic space existence in the domestic space. The argument supports the purpose of expanding picnic space understanding in the context of the domestic environment. The domestic environment can be constructed as a picnic space based on the relationship between the people and the objects involved, thus creating a different atmosphere (Zumthor, 2006). The atmosphere of a place results from the totality of attributes in the environment that simultaneously stimulates the perceptual system (Sadar, 2018). Therefore, it is possible to bring happiness, serenity, recreation, and entertainment to a person in their domestic environment. Not limited to the outside elements but towards how to bring the atmosphere from outside into the domestic environment.

Exploring how the process of transforming domestic space into a new type of space that supports health for its users is the central part of the paper. Starting by discussing the daily activity changes in a domestic environment, domestic activities to improve health, and overlapping borders such as forming picnic spaces. The method used for tracing is mapping activity and the relationship between people and their space. Visual records will see how the user perceives the atmosphere when carrying out an activity in a specific space and time in the living space. Then the data will be constructed and analyzed.

3. Methods

The study uses the domestic environment context in Semarang, Central Java, Indonesia. In this paper, the domestic environment is understood as where private daily domestic activities (eating, cooking, washing, sleeping) usually occur. The domestic environment is not limited to the inside of the house. However, outside the house can also be understood as a domestic environment where ownership and use are still private. As a resistance from the public environment or urban environment. The domestic environment in Indonesia has a particular characteristic, in which more people live in landed houses than apartments or high-rise buildings. The characteristic indeed allows the observation of different relationships between residents and their domestic environment to become more diverse. The study will use a qualitative approach (Creswell, 2003) to uncover the daily activities in a domestic environment that presents a picnic space, thus improving the occupant’s health.

Data collection was carried out by direct observation at residential homes within six days and 24 hours, as seen in Figure 1. This observation is carried out by recording every activity carried out by family members who are active in the domestic environment of the residence. The number of family members consists of 5 people, a father, a mother, two children (boy and girl), and a maid. The selection of case studies in this study is based on indicators of family members who usually do many activities outside the home, but during the COVID-19 pandemic, conditions must-do activities at home simultaneously.
Methods of collecting data with various media such as recordings, photos, and visual notes. Interviews were conducted to obtain data that could not be obtained through observation. Interviews were conducted with all residents consisting of five people. Data collection was carried out by compiling every daily activity for each occupant, categorizing the activities carried out, and mapping back how the domestic environment was used. The results of the data obtained are illustrated again to obtain patterns of use of the domestic environment for further analysis.

4. Result and Discussion
4.1. Domestic Activities to Improve Health

In his writings, Pallasma (2014) stated that architectural experience is basically multi-sensory and simultaneous, and complex entities are usually understood as atmospheres, ambience, or feelings. A spatial quality can be understood as an atmosphere perceived by the user and subjective (Zumthor, 2006). The understanding is not limited to the physical elements of architecture, but the presence of water, shadows, light, and non-physical elements to form the atmosphere (Liddicoat, 2018; Zumthor, 2006). Therefore, the present spatial quality is not limited to what is visible but how it becomes understood by the user.

Due to the COVID-19 pandemic, restrictions are changing the workplace, study, commerce, and recreation. For multi-use work/education, commerce/comfort, and private/public spaces, architecture is forced to adapt, adapt by the users and designers (Maturana et al., 2021). Changes in daily activities in the domestic environment bring various layers of activity in space, eventually issuing a different spatial quality in the domestic environment. The resulting spatial quality is indeed inseparable from the perceived atmosphere. Therefore, the resulting spatial quality will impact something that the occupants feel cannot be separated from mental health.

As stated above, one of the daily activities that can improve mental health is the picnics routine carried out by humans. Picnics are believed to give happiness, and this impacts the mental quality of the subject (Fuad & Yatmo, 2017). Restrictions on activities in outdoor and public spaces do not prevent occupants from constructing picnic spaces in their domestic environment.
environment. As in Figure 1, some of these recreational activities can appear during this pandemic, including watching a movie, planting, dancing, online sport, meeting with friends, virtual picnics, and online shopping. There is a paradigm shift in picnics in the domestic environment.

![Figure 1. Some recreational activities during the COVID-19 pandemic](image)

**Figure 1. Some recreational activities during the COVID-19 pandemic**

In the case study, it was found that various applications used by residents of the house to support activities that are usually carried out outside the home can be carried out in the domestic environment, as seen in figure 2. Shopping, work, school, and picnic activities can be supported by using this application. We try to categorize them as follows:

| App name     | Function                                | User                  |
|--------------|-----------------------------------------|-----------------------|
| Shopee       | Shopping                                | Mother Children’s    |
| Tokopedia    | Shopping                                | Mother Children’s    |
| Asana        | Working                                 | Father               |
| iTunes       | Music                                   | Children’s           |
| Youtube      | Entertainment                           | All                   |
| IQIYI        | Entertainment (Watching a movie)        | Children’s           |
| VIU          | Entertainment (Watching a movie)        | Children’s           |
| Netflix      | Entertainment (Watching a movie)        | All                   |
| Whatsapp     | Social Media, Working, School            | All                   |
| Facebook     | Social Media                            | All                   |
| Instagram    | Shopping                                | All                   |
| Zoom         | Working, Social Media, School            | All                   |
| Celebrity Fitness | Exercise                            | Mother               |

**Table 1. The application for supporting daily life in the domestic environment**

The role of technology in constructing space today is unquestionable, and technology can present diverse spaces in a physical space. Indoor and outdoor relationships are blurred (Adams & Marlor, 2019; Attiwill, 2011; Poot et al., 2015). Furthermore, space is no longer understood based on mere physical separation (Harani et al., 2021). In the current conditions, the existence of a picnic room in the domestic environment is possible. The family room, which is usually only used to watch television...
shows, is currently being built into a cinema. The presented atmosphere can be built by closing the light source, turning off the lights, and turning up the volume.

On the other hand, cinema can be present through a cell phone or iPad screen. Several cinemas can appear simultaneously in residence, depending on the supporting object, actor, and place. Before, we looked for entertainment by watching a movie at the cinema on weekends or holidays, now we need to stand in front of the smart TV to watch a movie of good quality like in the cinema. Other daily activities related to recreation are sports. With activity restrictions, we cannot do jogging in public areas and public sports. However, the recommendation to exercise is still applicable in the domestic environment, hence at certain times some spaces such as terraces and gardens are used to do sports. Dancing and online sports through social media are also widely practiced in the domestic environment, such as in the family room or the bedroom. A private bedroom can turn into a sports area when the occupant does online sports and connect with various people. Of course, this shows the blurring of the boundary of domestic space due to public activities. Another daily activity is meeting with friends, which is usually done in public places, nowadays it can only be done through social media. Maintaining to regularly exercise and connecting with close people is recommended when staying at home (New Zealand Government, 2020), to maintain mental health.

Shopping and cooking are the daily activities to meet daily needs (de Certeau et al., 1998). Those activities are undoubtedly inseparable from the domestic environment. However, what is currently happening is that activity restrictions do not allow us to shop at the market/mall hence the use of online shopping activities. In addition, work and school activities that usually require us to eat out are currently happening in a domestic environment. So that at work/school, what happens is to bring up a restaurant in the domestic environment through a food delivery service application. We can easily visit several restaurants at the same time. So that food can construct the domestic environment into a restaurant that we usually visit. Another picnic activity is visiting several places outside the domestic environment, although currently, we can only visit them virtually. That makes it easier for us to see what a place we want to visit looks like; with advances in technology, we can quickly move from one place to another. Although it does not deliver the atmosphere directly, this activity may serve as a picnic in the domestic space.

Figure 3. Mapping one of picnic space in domestic environment

Figure 3 shows the differences in the use of space at different times, where the four actors have their own space. That can be seen when the father works online in the dining room using a laptop and headset, and the dining table becomes a workspace. Meanwhile, girls use the dining table to eat while doing school work from their handphones. It shows that the dining table, which was supposed to
function as a dining room at this time, turned into three functions: the dining room, workspace, and classroom. Boundaries cannot be seen physically, but space is constructed through the present activities and the objects that support these activities.

At different times, it is found that there are forms of spatial changes that occur due to layered activities in one space. The children agreed to watch a movie together in the living room, then they turned off the lights and closed the windows. There was an atmosphere like in a cinema. At the same time, the second child ordered a meal through the food delivery service, and then the mother was in the same room doing work by opening a laptop. While the maid sweeps and mops. All these activities are in the family room at the same time. That shows that there are layers of activities in one space, giving rise to different layers of space.

Another time is when the house residents use their respective rooms to carry out their respective activities. That gives rise to significant spatial changes due to daily activities outside the domestic environment appearing in it. This overlapping of spaces does not mean that the residents are disturbed. Still, from the interviews conducted, they feel happy to carry out all activities in the domestic environment. Because they think the domestic environment is becoming alive, they feel happy because domestic spaces can be arranged according to their needs.

In figure 3, it can be seen how the domestic environment changes dynamically based on time and actors. Some spaces seem to be interpreted into two different functions when there are different activities. The presence of supporting objects cannot be separated from the constructed space. How space users perceive the atmosphere will change depending on the duration of the connection. Some spaces can switch functions, expand and shrink according to the activities and actors involved. This picture was taken on six different days. In one day, it was taken at two different times.

Performing daily activities in domestic environments does not mean making ourselves limited by the kinds of things out there; with the advancement of technology and increasingly easy access, we can perform activities that are usually public in the domestic environment. This shows that there is a boundary transgression between the public and domestic. Picnics usually carried out in outdoor spaces can be present in the domestic environment and remain a supporter of mental health. Therefore it does not limit that recreational activities can be done in outdoor space or an open environment; an atmosphere that can support happiness can emerge in the domestic environment.

4.2. Overlapping Boundary as Formation of Picnic Space in Domestic Environment

From the discussion above, the emergence of picnic activities in the residential environment can occur through the various process, including the connection between supporting objects, actors, and places in constructing space, blurring the boundary of domestic space with the presence of public activities in it, and objects in creating the atmosphere. Indeed, these three things show a boundary-crossing between domestic and public, physical and virtual, as well as inside and outside. That shows that boundaries can no longer be understood physically, but boundaries changed to become more flexible (Marlor, 2021; Martella & Enia, 2021). This paper expands that boundaries are flexible and can appear overlapping where there are several different activities and related objects with different actors in one space. It can be seen from the emergence of activities such as watching a movie and eating food ordered from a restaurant simultaneously.

In addition, the blurring of the boundary between virtual and physical can be observed clearly from the construction of other spaces in a physical space. When travelling online or on a virtual picnic, we can construct space through the atmosphere carried away from what we see. This shows that the atmosphere can display beauty like what Zumtor (2006) calls an atmosphere in the aesthetic category. The perception of a condition at different times will produce a different space. This shows that the domestic environment can turn into a public environment depending on what we perceive at a specific time. The resulting spatial quality will be different.
The domestic environment as a place for us to carry out various activities during the pandemic gives us the learning opportunity to use space effectively. The separation of duality between domestic and public in the discourse of spatiality expanded through this paper. Crossing domestic boundaries due to public activities that occur in it causes space to be read as stacked, layered, intersect, and even alternate. The domestic environment is not only a place to carry out private activities but is currently required to present various functions of space, both private and public. Hinkel (2020) revealed that this condition undermines the differences between private and public spaces, making them almost invisible.

This paper shows that picnic space cannot be limited to the location or existence of conducting activities related to nature and outdoor space, but more on presenting a spatial quality that can create feelings of happiness through the created atmosphere, which can occur anywhere. The domestic environment can support the improvement of both mental and physical health through the activities that occur in it. Restrictions on activities in public space can construct the domestic environment into a fairly complex environment.

5. Conclusions
This research contributes to the field of architecture, especially related to the discourse on changes in the domestic environment in pandemic conditions. In addition, this study shows that different spatial qualities arise through various processes. That provides another understanding of the quality of space and the environment. That can be one approach to designing a sustainable space and environment, taking into account various changes in activities that can occur.

This paper shows that the domestic environment can appear as a picnic space with a relationship between humans and objects or a supportive environment to increase happiness. The understanding of picnic space is expanded not only related to public space, nature, and outdoor space, but the domestic environment can be a picnic space for ourselves according to the perceived atmosphere. Picnic space in the domestic environment can be an example of an approach to space adaptation during this pandemic. Indeed, the finding can enrich the field of architecture, especially in interpreting space, boundaries, and their relation to the mental health of its users. Changes in spatial quality due to the pandemic can present layering activities in the domestic environment; therefore, how the space is used is essential in understanding public and domestic relations, not limited to physical boundaries. However, the space appears suitably with time, activities, and the atmosphere perceived. Picnic space appearance forming in the domestic environment occurs through three processes: the relationship between object supporter, actor and place, the blurring boundary between virtual and physical, and the relationship between the object and the atmosphere. Through this process, boundaries can overlap in a space so that space can no longer be understood as a physical form and has a single function, but space is constructed more flexible.

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