

# DECODING AMBIGUOUS SPACES IN THE SCHOOL OF CREATIVE INDUSTRIES BUILDING, TELKOM UNIVERSITY (TCIS BUILDING)

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**Abstract:** In interior design, architecture gives characters to the existing space. However, the results of the interior space designing are varied depending on the problems found in the existing. Furthermore, towards the making of an interior space, the space character is developed by the divisions of the positive-negative spaces in functional perception. It means, this categorization mainly occurs on how the users perceive the space to deal with certain activities. This aspect is also correlated with physical elements which accommodate users' activities physically and psychologically. Based on this understanding, there lies a category of ambiguous space which is defined as a space with no certain identity of function. It means this space has multi-interpretations towards functions. This paper discusses the factors that cause the phenomena of ambiguous spaces in the building of School of Creative Industries at Telkom University. This building becomes interesting due to its spatial special needs in the design process and it engages users' creativity. The method used is an evaluative observation described in a qualitative manner, with using the phenomenological approach of the deviant behavior towards the studied object. The aim of this paper is to define the parameter on how the setting of the interior physical elements is related to the creation of ambiguous space. It is found on the result that ambiguous spaces in the TCIS building are formed through *perception of the form of the space, design flaws, and design errors*. On further research, the findings can be an important factor to determine the characteristics of ambiguous space as a prevention in order to reach an optimized interior design.

**Keywords:** *Ambiguous space, Interior space, Space planning, Spatial character, Space perception*

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## 1. INTRODUCTION

Space planning is a very fundamental stage in architecture and interior design. In design practice, architecture gives interior design such a flexibility to form, shape, and fill the interior spaces. In the contrary, the results of the interior space designing are varied, and when the design process fails to optimize every space in details, there will be areas left as ambiguous spaces. This case happens in the building of School of Creative Industries at Telkom University (TCIS building). The building lies in the complex of Telkom University, Bandung and has become a unique case. The design should accommodate the needs of art and design school and express the function through responding specifically to each and every art and design major. Viewing from its existing, this building consists of five-storey levels with a symmetrical layout; from its function, this building is occupied by the majors of interior design, intermedia fine arts, product design, textile and visual communication design, each of which has specific needs regarding the space function. There are creative processes which should be engaged in the classroom, studio or laboratory, through which creativity should be aroused beside the physical activities. However, the existing design of the building in every room seems to be detached from the unique characters of each major's activities. It appears that the design process generalizes the interior specification and response. As a result, the users try to accommodate their specific needs by making use of any unstated spaces in the building and later may lead to deviant behavior towards spaces. For example, a space under the stairway in the main lobby has an unstated function which makes it ambiguous. Unless there is an event requiring the lobby to be treated as a welcoming exhibition, the space is usually used as an informal hangout place for students or a temporary storage for office equipment and student's unused work.

There are certain spaces without any specific functions in the TCIS building which are easy to spot. Without specific functions, people have their own interpretations about what those spaces are for. As mentioned by Lawson (2001:44) that the awareness of space is largely evident visually, people can have their own perception to translate the meaning of the spaces based on what they see. Moreover, people's perception of space is dynamic and related to what can be done in a given space rather than what is only seen (Hall, 1966:115). Perovic and Folic (2012) have previously discussed that a man's attitude towards an environment is primarily perceptual. Both statements explain the situation in the TCIS building, where the existence of ambiguous spaces may provoke deviant behavior. Thus, the raised question is: What is the nature of ambiguous space in the building and how to overcome with this spatial-behavioral issues?

Based on the described phenomena, this paper attempts to explore the factors that create the existence of ambiguous spaces in the TCIS building. The findings are expected to be useful as recommendations for further design development of the TCIS building. The urgency of finding these factors is to categorize the typology of ambiguous space in the TCIS building. The findings will also become a consideration in the design thinking process and design methodology in order to create an optimized interior design as well as to prevent users' deviant or negative behavior towards spaces in the building. In further research, this method of categorization can be assessed on another building with similar functions.

## **2. THEORETICAL BACKGROUND**

### **2.1 Understanding of Interior Space**

There are broad definitions of space, starting from the concrete physical form to the unseen abstract realm, all of which are presented and experienced (Boettger, 2014:16). A Roman philosopher Lucretius (in Schulz, 1971, p.10) defines space as the void outside a human body. Even though an enclosure is not necessary in determining a space (Hermanto, 2008:25), but in the context of interior there is a clear boundary that separates the architectural space inside the enclosed environment from its exterior. As mentioned by Weber (1995:136-137) it can be a void created by surrounding walls or facades that forms a perceptual figure, and "the shape of the space usually dominates the boundaries." Although it does not necessarily appear in a form of a building, but a spatial enclosure in a clear figure is what determines the interior space. In most cases, the place of interior spaces is located inside a physical building and the space is defined by the organization of geometric elements, which are point, line, plane, and volume (Ching, 2012:3).

To emphasize the figure, space is divided into positive and negative spaces. This concept is shown by Ching (2014:102) as "the unity of opposites" where the positive space represents the figure and the negative space represents the other elements. Interior space itself consists of some certain elements by which the characteristic of the space is formed. Those elements are commonly categorized as physical elements, such as ceilings, walls, floors, doors, furniture, and interior decorative materials; and non-physical elements, such as colors, textures, lighting, temperature, etc. In addition, Coles and House (2007:24) merges the physical and non-physical elements into a more dynamic categorization consisting of plane, scale, proportion, vista, movement, transition, and accessibility. Those elements are mentioned as the key to the creation and understanding of interior space and can be used to express the character and quality of the interior that will impart the space atmosphere and the users' personality.

### **2.2 Perception of Ambiguous Space**

Based on the space characteristics, the concept of positive and negative spaces is applicable in determining whether a space has a clear figure or the opposite. The space with a clear figure is commonly planned and designed with an intended purpose or meaning, either functionally or aesthetically; whereas the space with an unclear figure has an unstated purpose and thus creates ambiguity. A planned space is created as a result of a design process, but through the whole

process, an imperfection is often inevitable which results to a space leftover. Amongst the many designed spaces, it is often found in a building where there are some hidden spots or areas remaining to be unfunctioned formally. Those areas are still functional, but not designated specifically. Those areas are unplanned spaces, but are formed by the designed planned spaces as a positive and negative spaces causality.

Since defining a space is a perceptual process (Weber, 1995:132), an ambiguity happens unseparately from the users' perception. When the function of the space is unclear, the meaning becomes ambiguous for the users. This means that an ambiguous space might exist in either planned or unplanned spaces, with a higher possibility of ambiguity in the unplanned space than in the planned space. Although a space is well planned and given a specific function, but it is back to the users' perception to interpret the function and later treat the space based on it. When the users fail to interpret the functions as expected by the designer, it means the space communicates an ambiguity and can be called an *ambiguous space*.

Human behavior naturally has a dramatic active response to environment (Holahan, 1978:1) and an ambiguous space leads to an unpredictable response as it creates multi-interpretations and multi-meanings. Hall (1966:112) in discussing about spatial experience in a culture uses the term *informal space* for an unstated category of space, not because it lacks of importance but because it may have such a deep and significant context in forming a culture. The outcome is a form of cultural proxemics, which may invite disaster when misunderstood. This theory of space is also relevant in the interior design process, whereas the informal space mentioned by Hall is equal to the ambiguous space, and to misunderstand the meaning or to misinterpret the function of the space may result to deviant behavior. Thus, the more ambiguous spaces in the building, the more potencies of deviant behavior are there.

### **2.3 Visual Perception of Space through Gestalt Theory**

Gestalt theory in the context of space perception discusses about the dynamic process of the neural system in interpreting the surrounding space visually. The process itself involves retinal work and occurs both biologically and psychologically, but it involves the composition of the physical setting of the space. The popular explanation about this theory is that seeing an image in a whole is not the same to the sum of seeing all in partial pieces. Koffka (1936:265) describes that the understanding of perception is related to the point of view of constancy of shape, size and color, all of which can be found in the space elements.

There are six principles of Gestalt perception broadly taught and discussed in the design field: proximity, similarity, common fate, good continuation, closure, and area and symmetry, all of which are tightly related to the figurative setting. In interior space, the figurative setting is formed by the space elements, which includes composition, pattern, form, and any other aspects in the spatial organization. Therefore, in order to discover out what the perceivers interpret from a space, it is necessary to scrutinize the setting and organization of the elements of the space, especially those which are noticeable visually.

## **3. THE RESEARCH METHOD**

This paper is conducted in qualitative method, mainly on the evaluative observation of the studied object with a phenomenological approach (Creswell, 2007:57-59) of the deviant behavior towards the studied object. The research is focused on the ambiguous spaces found inside the TCIS building, covering all accessible areas at every storey. The data is collected through direct observation and image recording at the studied object which are executed in May 2016. A combined approach of the informal space which prone to misunderstanding with the perspective of Gestalt theory is performed during the analysis with a descriptive discussion as the result outcome.

#### 4. RESULT AND DISCUSSION

##### 4.1 Existence of ambiguous spaces in the TCIS building

The ambiguous spaces in the TCIS building are found by observing unstated spaces in the building with ever-changing function and marginal spaces which are seen unfunctioned or neglected. Figures 1-5 picture the location and the amount of the ambiguous spaces in the building with the letter codes explaining as follows: P=office, R=classroom/ studio, S= circulation area, T= stairs, and U= utility area.

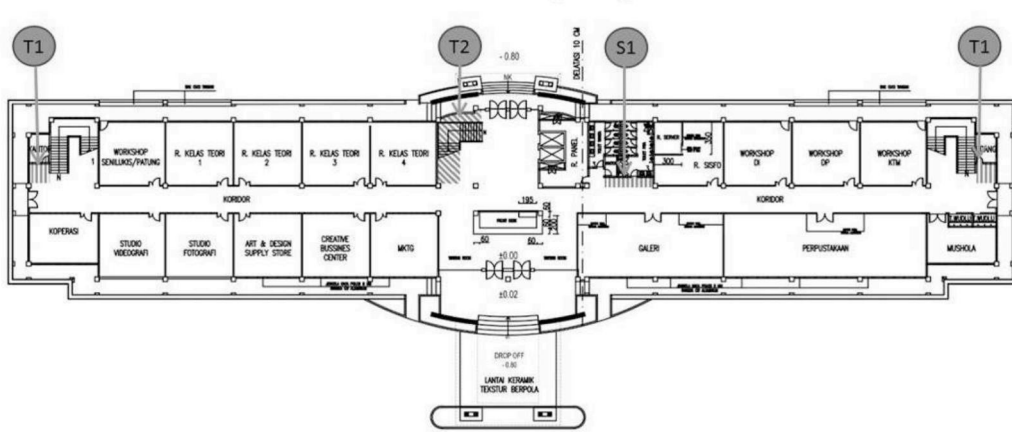


Figure 15 existence of ambiguous spaces at the first floor  
Source: Personal Documentation

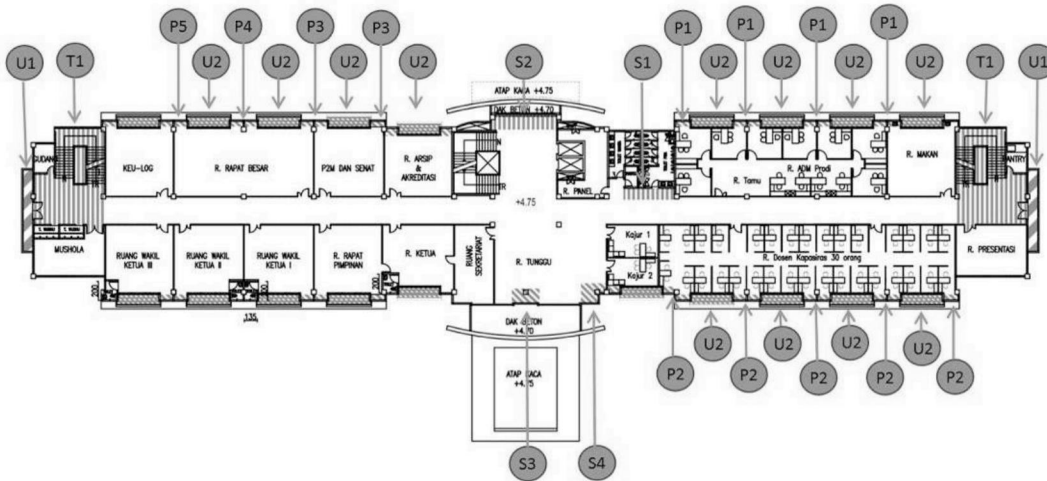


Figure 2 existence of ambiguous spaces at the second floor  
Source: Personal Documentation

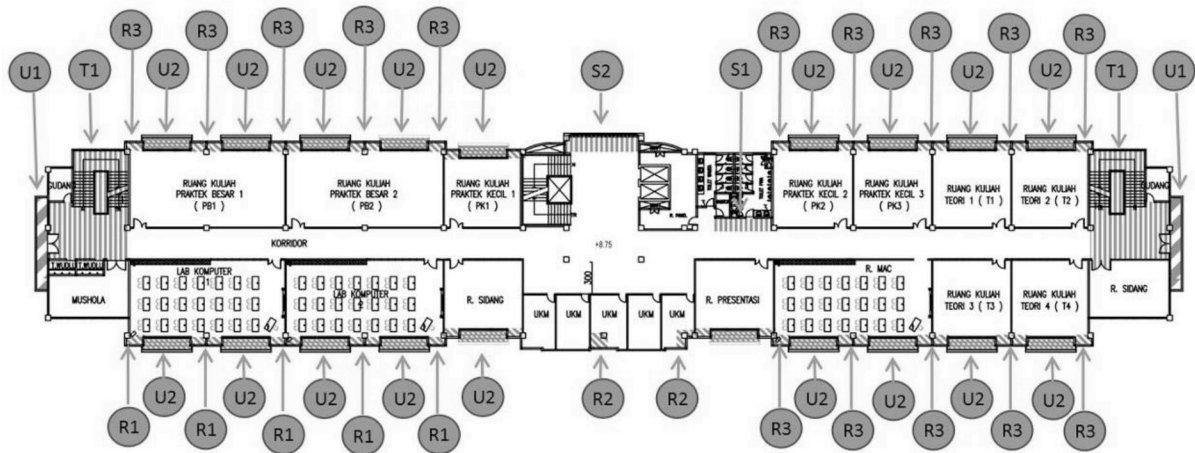


Figure 3 existence of ambiguous spaces at the 3<sup>rd</sup> floor  
Source: Personal Documentation

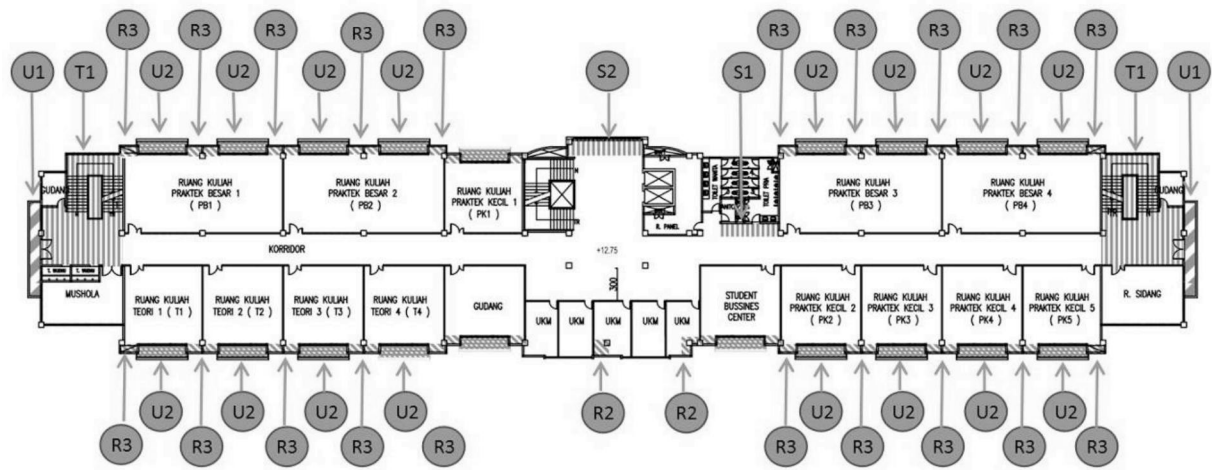


Figure 4 existence of ambiguous spaces at the 4<sup>th</sup> floor  
Source: Personal Documentation

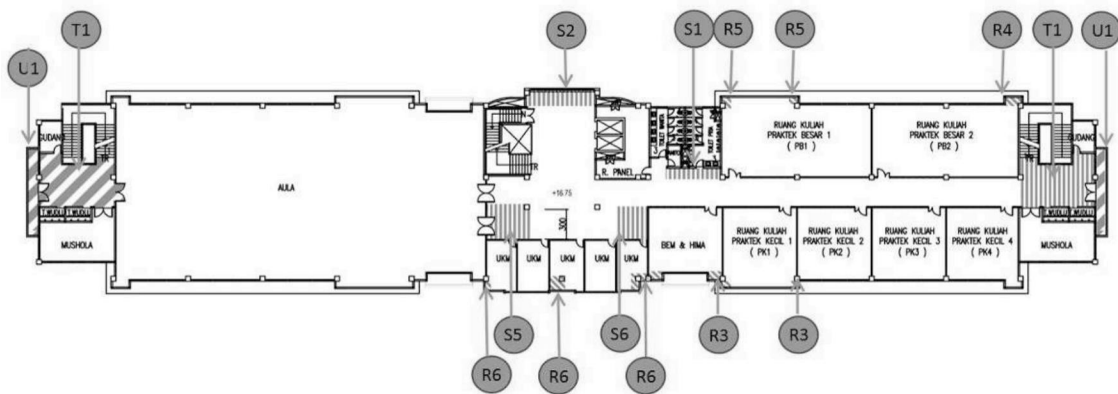


Figure 5 existence of ambiguous spaces at the 5<sup>th</sup> floor  
Source: Personal Documentation

#### 4.2 Analysis of the causes of the ambiguous spaces

The mapping in the figures 1-5 shows that the locations of the ambiguous spaces are mostly concentrated at the 2<sup>nd</sup> – 4<sup>th</sup> floors which have typical layout design. The second floor is functioned as the dean and faculty offices. All the lecturers' offices are also placed in this floor. The function

of the 3<sup>rd</sup> and 4<sup>th</sup> floors is typical for the classroom and studios, spread for every major in the faculty. Comparing to the function at the first floor which is dominated by administrative offices and the 5<sup>th</sup> floor which is used for practical laboratories and a multi-purpose hall, the 2<sup>nd</sup> – 4<sup>th</sup> floors are considered most occupant. With the higher level of occupancy, the frequency of people's interaction with the spaces also becomes higher. People have more exposure in experiencing the space and thus the space perception is formed.

It also observed that the locations of the ambiguous spaces create a typical pattern. There are constant areas in every floor which always become ambiguous spaces: the stairways areas at the ends of the hallway and the spaces in front of the toilet. The space in those areas are designed indented to express the meaning of the nearby function. Areas near the stairways are by purpose designed to be spacious to communicate the meaning as a node of circulations. Ironically, the placement at the ends of the hallway with exit doors which remain closed every time. It disrupts the users' perceptions and those spaces become "dead" rather than function as planned. The spaces in front of the toilet also have indented shapes with the similar intention of meaning, which is to communicate a different value of function in the middle of monotonous hallway. Sadly, despites of representing the intention, people perceive those spaces as an emptiness which is translated into a flexibility of treating the space. As a consequence, a deviant behavior is unavoidable, such as shown in the figure 6.



Figure 6 a result example of a deviant behavior in an ambiguous space  
Source: Personal Documentation

Another typical situation that creates ambiguity is found at spaces with irregular forms. In the case of the stairway in the main lobby, the outer shape of the stairway does not respond to the shape of the wall. On the other hand, the void under the stairway is also untreated and remains as a void. Meanwhile, the scale of the space is not too gigantic to create a magnificence of a main lobby or too small to be able to hide the voids. Thus, an ambiguous space appears. In another case, spaces with irregular forms happen by the existence of another interior physical elements, mainly columns. A presence of a column in the middle of the interior space is generally unpleasant for designers. Even though it does not have to be really in the middle of the space, but the space formed in between the column and the other enclosure element is unpredictable and also prone to ambiguity.

The other type found in the building is ambiguous spaces located at the corners of the room. This case is easily found at the 2<sup>nd</sup> – 4<sup>th</sup> floors where the rooms are typical and modular, and almost all of which have an indented form at one of the corners at least. Since the rooms are many, the consequent behaviors are varied depending on the users of the rooms. For rooms that are functioned as lecturers' offices, the behaviors also depends on who occupy the area nearby. Since the size is not too big to accommodate human's anthropometry, mostly the spaces are just left

neglected (in the class rooms) or used as cubicle extension areas and become personal storages (in the lecturers' offices).

The last type discussed in this paper is found in the areas for utility maintenance, formed as balconies. What makes these spaces ambiguous is that because it does not provide any proper access other than using the windows to get into the area. These no access-spaces are considered ambiguous as they evoke curiosity in the users perception. Without a proper access, the function of the spaces becomes questionable and ambiguous. Moreover, this case is considered fatal in a built design.

### 4.3 Result

Based on previous analysis, it is found that ambiguous spaces in the TCIS building are formed through 3 categorizations: *perception of the form of the space, design flaws, and design errors*. From the mapping, it is shown that in most cases, users' perception towards the forms of the spaces holds the main factor leading to the creation of ambiguous spaces. Viewing back to the figure 6, it is seen that by design, the space presents an attempt to communicate the meaning of the space by placing visual decorations on the wall. Contradictory to what is supposed to be achieved through perception, people still misinterpret the meaning and become misleading in the behavior. This case might occur as a combination result of the perception and the design. It means that other than the formal approach of design process, there lies another values which results in an unexpected perception.

## 5. CONCLUDING NOTES

It is concluded that first of all, due to the spatial characters, most of ambiguous spaces have a complex category. As order has always been a nature in design, the users have a difficulty in interpreting or in associating the space with irregular or complex form – which might happen as a result of a design flaw or a mere interpretation or a planned space. The more complex the form is, the more difficult is the process of the space interpretation, and thus perception is unstable and the behavioral result towards the space becomes unpredictable.

Secondly, design imperfections, classified as *design flaws* and *design errors*, are also involved in creating ambiguous spaces. The design flaws happen as an unresponsive treatment towards the space which leads to space disfunctionality. Generally every room in the TCIS building is treated with the same manner; with the same furniture and the same standard, as if all of the users have general needs. When an ambiguous space appears, it becomes a distraction to the similarity, and thus the users feel disoriented and reluctant. Meanwhile, the design errors happen as a failure in interpreting activities which should be customized in every need. The generalization of design respons thus impact on the biased function.

Thirdly, based on the previous two conclusions, the TCIS building has not been designed efficiently based on user needs and activities. Ambiguous spaces likely to occur as an expansion of unfacilitated users' needs. Non regular activities such as spaces for students' interaction or informal exhibitions cannot be accommodated nicely in available rooms or in the stated spaces, so the consequence is to find another unstated space to accommodate the unplanned scenario. Consequently, the ambiguous spaces are found to becoming ever-changing. The functions continuously change and keep improvising. By then, the deviant behavior also fluctuates amongst these ever-changing functions.

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