NARRATIVE OVERLAPPING IN SPATIAL TRAJECTORIES: EXPLORING THE PRODUCTION OF SPACE WITHIN THE EVERYDAY

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ABSTRACT

This paper discusses the production of space inside everyday using the narrative lens in architecture. The narrative in everyday is referred to as spatial trajectories. The study explores the spatial trajectories by analysing the story from a novel in order to identify the process of production of space within the everyday narrative. The inquiry results suggest that what is important in the production of space process is the bridge formed by the spatial trajectories. The more bridges that are present means, the more spatial trajectories are involved. It becomes important to consider the overlapping between spatial trajectories that occur in that space because it indicates various kinds of narratives involved.

Keywords: Narrative; spatial trajectories; bridge.

INTRODUCTION

A narrative is one of the most fundamental aspects of human evolution. Since the discovery of human language, we use narrative to express something. It allows us to create sentences and itineraries, and of course space. A narrative is present in every time and every place; it is always there. Therefore, building and cities as a human culture should have the meaning beyond functions. It was not unusual for architecture manifestoes to be constructed around narrative. It ignites the potential of architecture to shape human world.

However, the use of narrative in contemporary practice tends to be limited. If we want to rethink the notion of place nowadays, we need to go back to the basic of production of space in our everyday. In order to understand the production of space formed in everyday, we need to find out how narrative happens in our life, and how it contributes to the production of the space of the everyday.

The objective of this study is to find out: How is the process of production of space inside spatial trajectories as the narrative of the everyday? What elements need to be considered if these spatial trajectories will be used as a narrative approach in architecture? This paper begins with discussing narrative and spatial trajectories as the important aspect of narrative. The study of the spatial trajectories is conducted by analysing the narrative overlaps in a novel *Bumi Manusia* by Pramoedya Ananta Toer. The findings on the spatial trajectories in the narrative suggest some possibilities to extend this idea as the basis of further design approach.

NARRATIVE AND ARCHITECTURE

Narrative and architecture have opposing characteristics. If the narrative has a proliferated and diluted nature, the architecture is more restricted and reduced (Coates, 2012). However, both of them have something in common; that is, there is a meaning to be conveyed in an idea. Narrative when meet with space will create a spatial practice in geometric forms that have meaning (Coates, 2012).

The narrative comes from the Latin word *narrāre* which means to describe certain events or actions (Partridge, 2006). So it can be concluded that the narrative aims to convey the story. This story comes from our memory in the form of space and time, in which some fragments mapped in our mental map to make a story (Coates, 2012).

In narrating a space, we use speech and gesture (Hollis, 2018). Hollis's thoughts can be presented in 3 narrative forms based on the point of view. If we use the 3rd person of view, we will narrate space by introducing. If we use the 2nd person of view, we will narrate space by mapping. While if we use the 1st person of view, we will narrate the space through performance. In the process of narrating space through performance, there is an inhabitation process in that space which will eventually produce space.

SPATIAL TRAJECTORIES

A narrative will arrange events into a sequence (Coates, 2012) (Psarra, 2009). This understanding is a narrative in general terms, while architecture is something that will always grapple with space and

time. The narrative at one time can be very different at the other time. So if we want to understand narrative and architecture, attention about this must be shifted from superior cultural narratives to the everyday (Till, 1996).

A narrative can appear in everyday; this narrative will traverse and organise places, select and link places, make sentences and itineraries. These things are called spatial trajectories (de Certeau, 1984). By using the notion of spatial trajectories, each story is a story about a journey, a spatial practice, practices that shape space.

The elements that occur in spatial stories are a place, space, map, tour, and boundary (de Certeau, 1984). According to de Certeau (1984), if a place is an arrangement of elements that form a location with definite position configurations, space is present when there is a movement or operation that has direction, speed, and time variables. For example, a road is geometrically a place defined according to urban planning, it will change into space when there are pedestrians in that place.

Meanwhile, if a map is knowledge of the arrangement of a place as a result of seeing something, then a tour is a travelling process or a spatializing action that forms a movement (de Certeau, 1984). By using this understanding, map are very closely related to place, while the tour can produce space because there is spatializing action.

In a narrative, the storyteller will arrange the event into a sequence which then becomes a story; this story must occur in a spatial. When there is an element of time in the everyday, the story will experience development or shift. This development or shift is what is called a trajectory (Coates, 2012). So if we want to explore the process of production of space in everyday using the narrative lens, this understanding of spatial trajectories is an important key to understanding narrative in everyday.

As stated above, a narrative will arrange events in a sequence. In everyday, the narrative will select a place, make itineraries, deliver it in sentences, traverse and link these places, and organise the place. So it can be concluded that spatial trajectories are a sequence of events that traverse and link places as spatial practices that occur in everyday. Because spatial trajectories occur in everyday, there is an element of time that will cause this trajectory to experience development or shift according to the event that is happening at a time.

The everyday practices that we do in occupying these spaces such as speaking, walking, cooking and so on can be studied based on actors, tactics and strategies (de Certeau, 1984). Tactics can be interpreted as an "art" carried out by "weak" people,

usually to respond creatively to things that are lacking. While the strategy is manipulation of power relations to be able to achieve the desired goals, especially for those who feel they have authority. Due to the time element in spatial trajectories, if the notion of daily practice occurs in spatial trajectories, the production of space will experience a shift and development following the spatial trajectories carried out by the actor.

THE REPRESENTATION OF SPATIAL TRAJECTORIES

Representation is a form of language that humans use as a medium to tell what they see (Berger et al., 1972). If we can examine the representation of a story, we can uncover the hidden potential of the story (Corner, 1999). A narrative is also said to be a form of representation that is bound by sequence, space and time (Cobley in Psarra, 2009). Narrative as a representation will give meanings in space and social relationship.

The diagram as representation can be used as a design tool using projections. The projection itself is a method for representing 3-dimensional objects into a plane (Hoffmann, 2010). This method has long been used in scenography (Andersen, 2007), namely the art of building scenes in perspective (Vitruvius, 1914). While the other interesting thing is, in projections, all points in a space that are drawn are strictly related to specific moments at a time (Hatch, 2010). If the projection shifts slightly, that point will shift because of the different time elements (Soddu, 2010).

So if the nature of the projections and diagrams that are related to time and spatial movements can create the right form, an understanding of the form as more spatial and structural, can be shifted as representations of time and spatial movements. If there is a sequence arranged by a plot, a sequence called strong time will emerge as the main narrative, as well as a sequence called weak time as events that may or may not occur incidentally.

One example that can display strong time and weak time is to use a diagram fold. The diagram fold that was showing this was first seen in Peter Eisenman's design for the Rebstockpark and Wexner Center projects. While in the Wexner Center design, Peter Eisenman focuses more on the big narrative (strong time), in the design of Rebstockpark, Peter Eisenman using a diagram fold to show events that are weak time. This fold diagram made by Peter Eisenman turns out to be an event map, an unexpected geometric description, a virtual diagram. As a form, fold diagrams can immediately show a process, an activity (Somol in Eisenman, 1999).

Here we are trying to make an example diagram fold that can show strong time and weak time in a sequence that change due to the time element. Figure 1 can be read as an event map with two axes. The first axis is the sequence of events arranged by a plot, while the second axis is the element of time. In spatial trajectories as everyday narrative, the sequence of events arranged by the plot will experience a shift or development if there is an element of time. The narrative on a particular day will have a difference with the narrative on another day.
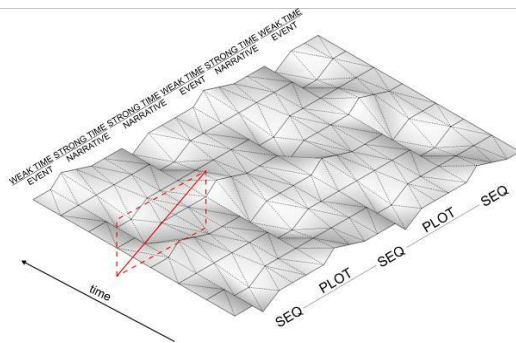

Fig. 1. Example of Diagram Fold

If the diagram fold is cut into one section in Figure 2, the spatial trajectories elements that appear can be identified and analysed. In a mental map in the form of time-space, there are various kinds of events that occur in a place. Narratives will link these events in a sequence. Some sequences repeated in everyday, and some are just coincidental or probable. This sequence is following the meaning of time-image in the diagram fold made by Eisenman. The repetitive sequence is called strong time, while the sequence that accidental or incidental is called weak time.
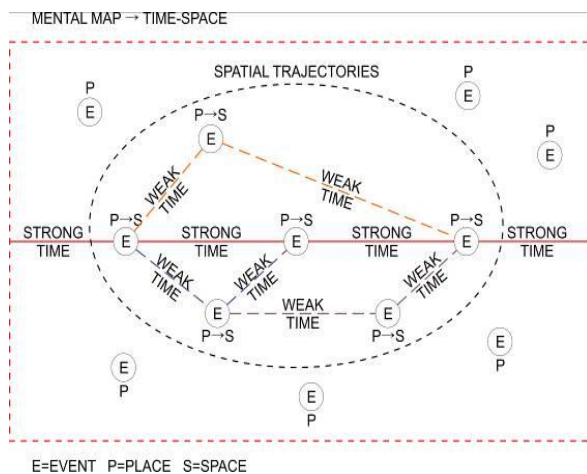

Fig. 2. A Section of Diagram Fold

For example, in everyday morning, the usual sequence done by someone is waking up, then eating and bathing. This main narrative is strong time. While if there is one morning that does not experience eating first because there are other things that need to be done, then the narrative is a weak time because it does not always happen every day. All the narratives that might occur in the morning are called spatial trajectories.

The conclusion is in spatial trajectories the things that need to be represented are actors and time. This element can be represented by using a projection in the form of scenography to represent the actor in a scene. Also, to represent time, we can use time-image in the form of a diagram fold.

METHODOLOGY

This study was carried out in several stages. The first step is to study various literature, both literature related to narrative and architecture, and literature related to possible representations that can be used for spatial trajectories. This stage is done to find out how broad the definition of spatial trajectories is, and to find the right representation for spatial trajectories so that they can be mapped and understood as methods in design. We have described the results of this stage in the introduction above as a theoretical basis.

With the narrative lens in everyday and a spatial trajectories representation in the form of time-image above, the case of a narrative is explored to trace the process of production of space. The narrative that will be explored is a narrative in the form of a novel, the book of *Bumi Manusia* by Pramoedya Ananta Toer. Written narratives are proposed as narratives that will be explored rather than narratives in the form of moving and sound images because they still have freer interpretations that allow translation into the architectural domain. This stage of the study is an attempt to find out what things need to be considered in the process of production of space that happened inside the narrative of the everyday.

The literature stage and case study of the narrative are an attempt to find a synthesis of this study related to the narrative approach in architecture based on spatial trajectories, as a method in design.

RESULTS AND DISCUSSION

The narrative of *Bumi Manusia* will be dismantled using collages. Collage is used as a tool to dismantle the narrative because of the form, as the final goal of the representation in the form of diagram, can be read based on the signs that appear. So that if the signs are processed using collage techniques can bring out the relationships that occur between the signs (Eisenman, 1999). What will be discussed are

matters related to the production of space in the form of actors, tactics, and strategies.

There are three types of production of space, namely spatial practice, representations of space and representational space (Lefebvre, 1991). Spatial practice is more appropriate to be used in dismantling narrative of the everyday because spatial practice will produce spaces that are perceived directly in everyday. The space formed can be read by looking at the direction or space instruction, or the texts that appear in space. Space will be easier to read in areas in the middle or transition areas such as meeting places or crossroads.

IDENTIFYING PARTICULAR NARRATIVES WITHIN THE STORY

By using a collage technique, the spatial practices occur in the *Bumi Manusia* Novel is represented by fragments. These fragments come from photos and words obscured by their boundaries, re-coloured, and consist of various types of human and non-human actors such as animals, objects and transportation that are following the period of *Bumi Manusia* Novel.

For example on the top right in Figure 3 there is a representation of *Boerderij Buitenzorg*'s depiction, where most of the *Bumi Manusia* narratives occur, based on depiction in the novel:

> "And every resident of Surabaya and Wono-kromo, I know, knows only: that is the home of a great rich man, Mr Mellema – Herman Mellema. People consider their home a private palace, even if only form teak. From afar, the grey shingle roof appeared. Doors and windows are wide open. …Instead a console is wide and wide enough to protect a wide wooden stand, wider than the front door (Toer, 2005)."

The house was depicted using pieces of photo of a luxury home in Surabaya between 1857 and 1874. Moreover, other spatial practices are tried to be illustrated with various pieces of old photos such as the newspaper piece of *Het Nieuws Van Den Dag: Voor Nederlansch-Indie* which originated from October 10, 1905, as a representation of mass media at the time of *Bumi Manusia*. There are also transportation objects that are often found in the novel such as *dokar*, trains, and ships as the primary modes of transportation at that time. The everyday practices found in the novel are also represented by pieces of photographs of objects that fit their time such as *Nyai Dasima* Novel, gramophone, HBS (Hogere Burger School) school in Surabaya at that time, as well as painting of Admiral Keumala Hayati as a representation of Aceh women fighters that faced by one actor.

Fig. 3. Collage of *Bumi Manusia*

From the collage of the *Bumi Manusia* Novel, there are several productions of space that is considered interesting because the space produced and the modes of production that occur show quite diverse actors, so that the tactics and strategies used by these actors also vary. The four spaces formed are social spaces that are produced by villagers using tactics such as playing by the children and gossiping while looking for fleas by the women villagers, social spaces produced by children while playing kites in the field, as well as the economic space produced by workers when making furniture in the workshop. However, the most interesting is the vague spaces formed in brothels. In these grey spaces, there is the production of social and economic spaces, with actors from various classes of society blending in search of entertainment and information. The four spaces are considered interesting to be explored further because the actors, tactics, and strategies that appear are very diverse when compared with other spatial practices found in the *Bumi Manusia* Novel.

Then the results of the collage are dismantled again to see the time-image that is formed by looking at the strong time and weak time that appears between the event fragments that are used as collages. The purpose of this dismantling is to find out the elements that connect the event. The connecting element of this event is an action that produces space.

Previously it has been explained about spatial trajectories that space will appear if there is spatializing action. If this is applied to the section of the diagram fold in Figure 2, the events that occur in a place will change into space when there are spatializing actions that make up the event. With that definition, the strong time and weak time in spatial trajectories are a series of tours that act as spatializing actions to form spatial trajectories.

The connecting element between events as spatializing action can be referred to as bridge (de Certeau, 1984). The bridge will create frontiers at the boundaries of space formed by the interaction of a series of practices. Narratives will connect these events using bridges. So that more bridges are created, more and more frontiers are formed.

In dismantling the collage, it turns out things that can produce interesting spaces are not based on spatializing actions that become bridges between events. Because proven by the same spatializing action the resulting space can be different. The four attractive spaces can also occur in strong time and weak time. To produce an interesting space, things that affect it are not based on time categories or spatializing actions that occur.

Fig. 4. Time-Image Diagram of *Bumi Manusia*

Frontiers as in-between space will always appear along the bridge as it is said that the more bridges, the more frontiers are created. In time-image diagram above (Figure 4), it can be seen that frontiers in all four interesting spaces that can show spatial practice in the *Bumi Manusia* narrative can be more visible because of the bridges.

If traced further, the production of the four spaces occurs when the space produced has many bridges connected by aliens. The term alien refers to elements that are outside of space formed or exteriority (de Certeau, 1984). This element can be inside the interior but it is said to be an alien if the element is outside the space formed. As in the section of the diagram fold in Figure 2, some events are on a mental map but not linked in spatial trajectories.

The dismantling of the collage on Figure 4 shows the spatial trajectories carried out by the actors involved in the narrative of *Bumi Manusia*. Between several spatial trajectories also experienced many overlapping, but did not produce interesting space. It is precisely when some of these events have frontiers and bridges that lead to spatial trajectories beyond the narrative of *Bumi Manusia*, the space formed becomes more interesting because there are actors who are outside the narrative of *Bumi Manusia* (alien), so that the space formed becomes more diverse in meaning.

ANALYSING SPATIAL TRAJECTORIES AND OVERLAPPING OF NARRATIVES

If all the spatial trajectories that occur in the *Bumi Manusia* narrative are presented, the spaces that have bridges to aliens can be enlarged to examine the actors, tactics and strategies involved in the production of space. Including spatial trajectories of the actors that are outside the narrative of *Bumi Manusia* (alien), and how the overlapped forms with the spatial trajectories of actors in the narrative. These actors who are said to be aliens are real actors in the narrative of *Bumi Manusia* such as villagers, carpenters, Babah Ah Tjong customers, and children who are playing. These actors have their spatial trajectories but are not mentioned in the narratives of the *Bumi Manusia* so that their spatial trajectories are considered as aliens, it is there but not explicitly identified in the main narrative of *Bumi Manusia*.

In Figure 5, from Annelies to Jean Marais (red line), they are spatial trajectories of actors that can be identified in the narrative of *Bumi Manusia*. The first green line (Villagers) and bottom three (Children, Customers, Workers) are the spatial trajectories of actors that could not be identified in the Novel. They are there, as mentioned in the space that overlapped with other spatial trajectories, but we do not know the rest of the spatial trajectories.
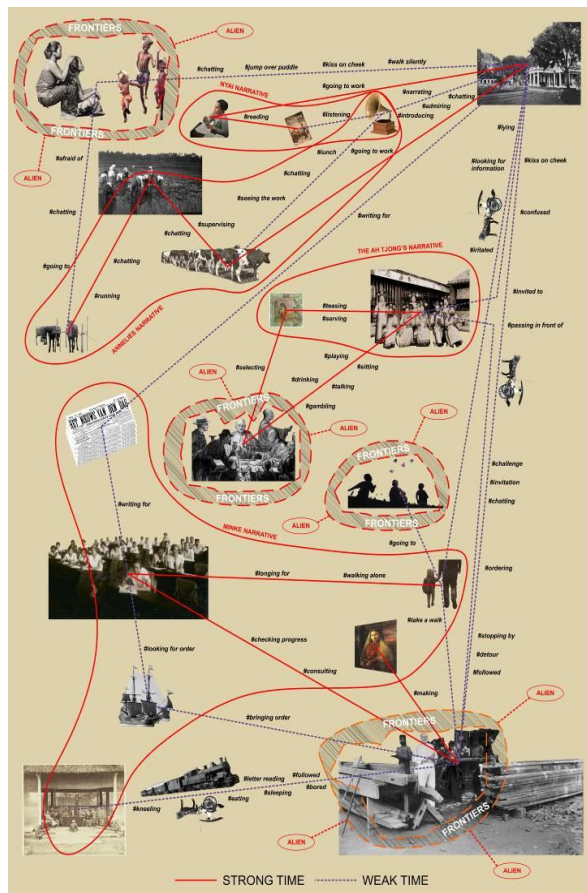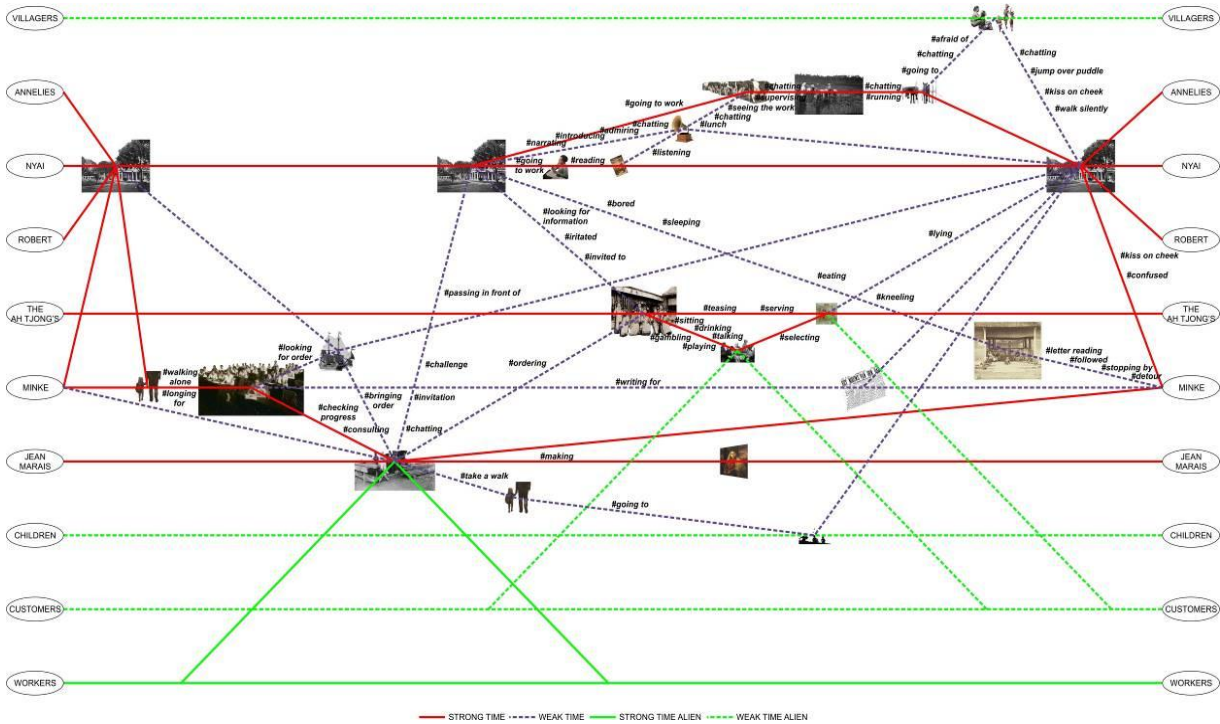
Fig. 5. *Bumi Manusia* Spatial Trajectories Diagram

For example, the Annelies, Nyai, and Robert narratives have overlapped at the initial event that took place in a house, because these three actors are one family that lives in the same house. However, in its development, each actor has their spatial trajectories, and may overlap at an event that returns to its original location, as the everyday endpoint of these actors.

It can be seen that in each process of production of space, in addition to the overlapping of spatial trajectories between actors in the narrative, there are also spatial trajectories of the actors that are not mentioned in the narrative of *Bumi Manusia*. However, there is an overlap between their spatial trajectories and the spatial trajectories of actors in the narrative both directly and indirectly.

The overlapping between spatial trajectories is then dismantled further to see the role in the production of space that is present as a result of the overlapping of the narrative. After dismantling the overlapping of the narrative, the results found elements of the production of space such as actors, interactions, and objects produced. As in Figure 6, elements have been obtained as a result of the overlapping of narratives that can produce space.

In one of the *Bumi Manusia* scene in Figure 6, Minke's spatial trajectories only overlap directly with Jean Marais and May Marais. While in the same space, there is an overlapping of spatial trajectories as well as from workers who are making furniture.

These workers have direct contact with each other spatial trajectories in the form of work activities, with furniture as the object produced.

Meanwhile, even though between spatial trajectories Minke, May Marais, and Jean Marais overlap with each other directly because there is a conversation between actors. However, between Minke – May Marais spatial trajectories and the workers did not have direct contact because each group only saw each other not contacting directly. The only one that interacts with all the actors in the space is the spatial trajectories of Jean Marais.
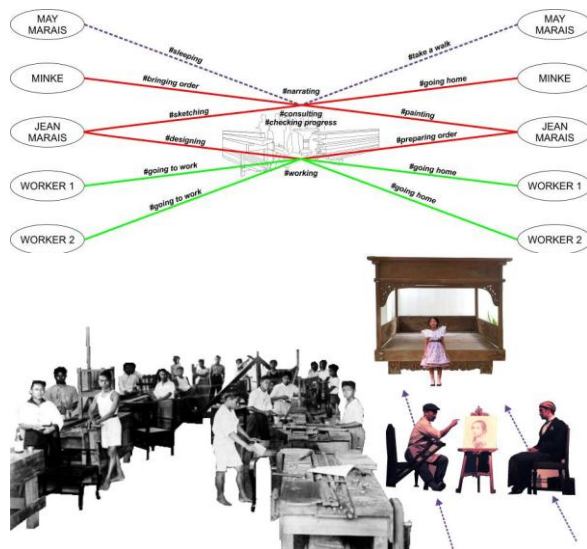

Fig. 6. Analysis of the Elements of Production of Space in *Bumi Manusia* Scene

The bridge of the space formed is spatializing action carried out by actors (Minke, May Marais, Jean Marais, and workers) namely #sleeping, #bringing order, #sketching, #designing, #going to work, #take a walk, #going home, #painting, and #preparing order. Meanwhile, frontiers from the formed space are in-between space from the boundary space formed, which is the location where space is formed. In this case, the workshop area which has boundaries in the form of the activity of the actors involved.

DEVELOPING STORYBOARD TO REPRESENT SPATIAL TRAJECTORIES

Then from the scene that has been obtained the space elements formed in Figure 6, a representation is made using one of the scenography techniques, namely storyboard. In this storyboard, each actor and accompanying object are separated per layer to then be made in 3 dimensions using laser-cutting techniques. The objective is to find out the effects of each actor on the space formed.

The storyboard in Figure 7 shows scenes in the workshop, the main actors who play a role are Minke, Jean Marais and May Marais. The alien spatial trajectories are represented by carpenters who work for Jean Marais in making furniture. In each of these carpenters, there are inherent objects which are the result of their interaction in the space in the form of carpenters' equipment and the furniture they are making.

From the result of the laser cutting, we can see the process of production of space by all of the spatial trajectories involved and their effects when one of the spatial trajectories is not present in the process of production of space. In the "A Day in Workshop" scene in Figure 8, if there is one carpenter not present, then one of the furniture made by the carpenter is not present in the process of production of space. The furniture as one of the elements of space in that space is produced by actors who are alien spatial trajectories because the workers are not an actor discussed in the overall narrative of the *Bumi Manusia* novel.
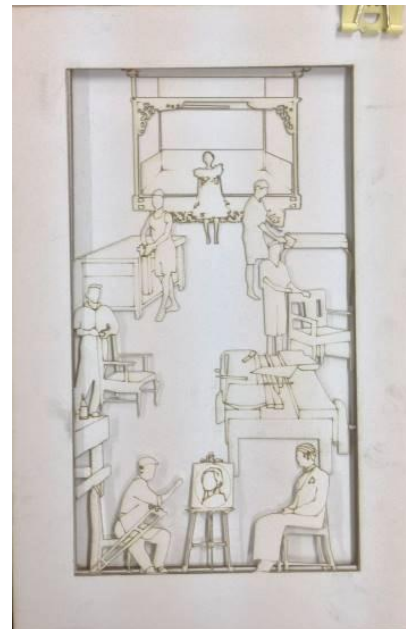

Fig. 8. Laser Cutting Scene "A Day in Workshop"

An understanding of this production of space can be used as a design method. The overlapping of narratives in spatial trajectories will form various kinds of interactions carried out by actors. These interactions will produce elements that will define space. These elements can be active elements such as the actors, as well as passive elements such as objects that are present as a result of the interaction of the actors.

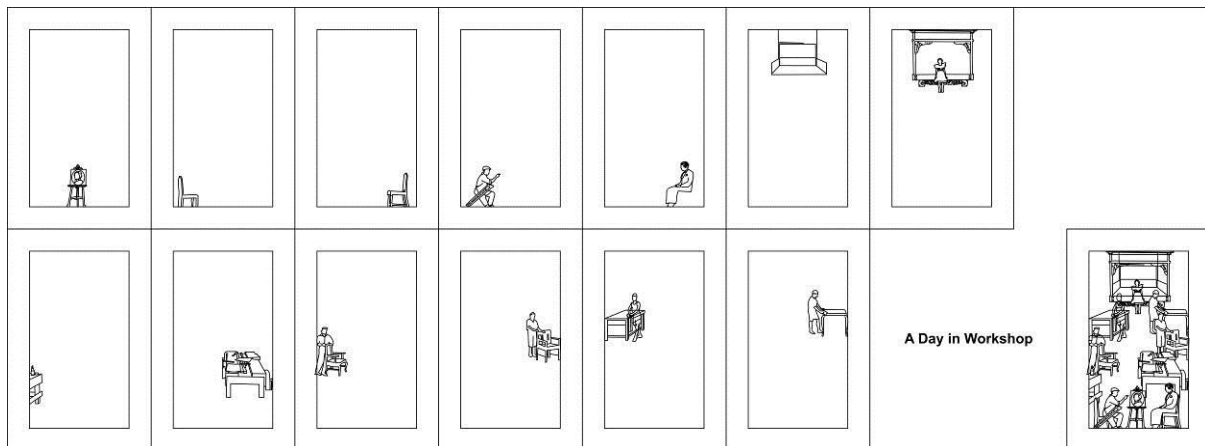From inquiry using laser cutting above, it can also be a potential in dismantling everyday objects.

Fig. 7. Storyboard Scene "A Day in Workshop"

Objects are the result of the interaction of these actors, and these objects may be present in other actor' spatial trajectories. Like the example of furniture produced in the space in Figure 8, it turns out that it is also present as an object element that compiles brothels as one of the interesting space mentioned in Figure 3.

CONCLUSION

This study discusses the process of production of space in everyday using the narrative lens in architecture. The inquiry results suggest that what is important to see in the process of production of space is how spatial trajectories between actors in everyday, which are everyday narratives, overlap with spatial trajectories of other actors. The more bridges that are created in the overlapping event, the more spatial trajectories involved. So that more meaning can be conveyed as a narrative and architectural purpose.

The more diverse actors involved in the narrative overlapping, the more tactics and strategies that emerge, the meaning of the space formed in the overlapping of the narrative will become increasingly rich and diverse. So that needs to be considered is the overlapping between the main actor's spatial trajectories and the alien actors that occur in that space because it indicates various kinds of narratives involved.

The overlapping between the spatial trajectories of the actors will produce interactions and accompanying objects. These interactions will produce elements that define space. If one of the spatial trajectories is not present, then there will be an interaction that does not appear, so the resulting space element will be different when the spatial trajectories are present.

Understanding of the overlapping of this narrative can be used as a design method by understanding the elements of space formed such as interactions and objects that are present as a process of production of space. Form the inquiry result; it turns out that these spatial trajectories do not only apply to actors, but also have the potential to trace objects as a result of the overlapping of narratives so that they can be dismantled of their everyday using the same technique.

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