
SPATIAL DYNAMIC OF *PENDALUNGAN* COMMUNITY SETTLEMENT IN HINTERLAND MALANG

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Abstract: *The difference in environmental conditions between the islands of Java and Madura, it is very possible for changes and shifts in architecture. Dynamics becomes very important in determining the process of formation and change in the architectural space. Humans as social beings are always interacting and adapting, requiring a dynamic spatial system. The aim is to see the process of changing the architectural space of the existing Madurese Pendalungan community according to the new environment, namely in Ganjaran Village, Malang. Data collection methods were carried out using field observation techniques, in-depth interviews, documentation and architectural measurements. The research design is qualitative, while the research strategy is descriptive. The dynamics shown by the Pendalungan hinterland community in Malang in determining their identity expression shows that adjustments emerge in a dynamic society.*

Keywords: *spatial dynamic 1, Pendalungan 2, Hinterland Malang 3*

INTRODUCTION

The *Pendalungan* people shape their existence by adapting to their migration areas. The settlement pattern has transformation by adapting to Javanese culture, Islam, and the people around the settlement. The distribution area of the Madurese who live outside Madura Island is commonly referred to as the “tapal kuda” area and is called the *Pendalungan* area (Satrio, 2020). The Madurese are classified into four categories (Satrio, 2020), namely; Madurese, Madurese transition, Javanese transition, and Java. Several case studies on *Pendalungan* settlements that have migrated to Java and especially in Malang, the condition of the people's dwelling is dominated by the situation of standing individually. But in general there is still a pattern of grouping in one extended famil. Dwellings can be connected by the existence of *pelataran* and roads that divide between houses. *Pelataran* is the naming of the courtyard of *Pendalungan* settlement in hinterland Malang.

Ganjaran Village is an interesting study because it is one of the villages in Gondanglegi District, Malang Regency, which is the destination of the Madura *Pendalungan* Migration Area. The location of Ganjaran village is in the south of Malang city which is a hinterland region. Hinterland Malang is region in the south and is the geographical boundary of the Malang region (Febrianto et al., 2017). The hinterland region is a location close to the city center where infrastructure and socio-economic functions have developed (Agustina et al., 2021). Hinterland Malang, especially in the Gondanglegi area, has received a lot of lowland and industrial influences with the existence of the Kreet Sugar Factory around the 19th century.

Humans is social beings who think dynamically, will interact and adapt to the environment through their architectural spatial activities. The spatial system embodied in space is a stable benchmark (Nurmayanti et al., 2017). The movement of Madurese people to new area, this can also be accompanied by a transfer of architecture. Differences in environmental conditions between the islands of Java and Madura, it is very possible for changes in architecture (Ridjal, n.d.). Architectural change is one of the bases for the emergence of architectural differences and adjustments in new environments. Adapting to a new environment causes variations in the form of a community's dwelling. Dwelling will follow the general form of origin dwelling in the new area. Over time and the influencing factors, residential buildings with strong characteristics may experience large or small

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scale changes. This change can cause the loss of the original identity and lead to a new adjustment character that appears to differentiate this region from the others (Januastuti & Artiningrum, 2018).

The dynamics of architectural space is an interesting thing to observe, because the process of finding a balance between humans and the environment causes dynamics. Spatial dynamics in residential areas have been going on for a relatively long time. The dynamics of architectural space provides an understanding of the spatial adaptation carried out by a group of people towards the formation of residential architectural spaces in new places (Asikin et al., n.d.). Dynamics can be approached through spatial changes according to a certain period. Dynamics are formed through spatial components and compositions. Dynamics can be interpreted as a movement that continues to follow changes in time. The time factor plays a role in the emergence of dynamics (Asikin & Wulandari, 2016). Dynamics can also be interpreted as a process of change that is shaped and influenced by landscape conditions over a long period of time.

Madurese migrant settlements show changes in the physical elements of settlements and are maintained in their new settlements (Widiana & Yusran, 2017) & (Ridjal, 2014). Three aspects that influence the spatial patterns of traditional settlements in Madura are trust, kinship, and social hierarchy (Ridjal, n.d.). The existing settlement pattern is linear following the geographical conditions of the settlement land which has a sharp contour and is located on the riverbank. The geographical conditions of the existing environment cause changes in the physical spatial layout of the settlement environment which is different from the spatial layout of the place of origin (Widiana & Yusran, 2017). Spatial dynamics in a residential environment is associated with the occurrence of changes in life factors. These factors consist of physical, natural, social environmental factors, individual character, space user communities, and technological factors that influence the architectural formation (Swandani & Wulandapri, 2019).

The various functions of architectural space will produce various architectural forms. Differences in form allow the use of various building materials, which have meanings and functions for their users. Dynamics becomes very important in determining the process of formation and change in the architectural space. the dynamic process that occurs in the *Pendalungan* Madurese community settlement is important to analyze because it can monitor the process of changing existing space according to a new environment in the Malang Hinterland region, namely Ganjaran Village, Malang.

MATERIALS AND METHODS

1. Theory of Spatial Dynamic

Spatial dynamics is an environmental order (individual/family/group/community) that always tries to adapt its needs to the potential of its environment through a 'flexible' and 'dynamic' process (Widiana & Yusran, 2017). Twelve dynamic processes according to (Amarullah et al., 2018), (Asikin & Wulandari, 2016), and (Suartika et al., 2022) which consist of privatism process, clustering process, categorization process, classification process, bordering process, labeling process, mediating process, inclusion-exclusion process, marking process, polarization process, quartering process, and environmental. This process occurs in the macro-meso and micro spatial structures of settlements. The stages of the spatial dynamics process in *Pendalungan* settlement according to (Asikin & Wulandari, 2016), at the macro level consist of 5 stages of the privatism process - clustering process - inclusion - exclusion process; as well as categorization - classification process. Meanwhile, on a micro space, it only goes through 4 stages of the process, consisting of groups that go through the stages of the labeling process - bordering process - marking/identity expression process - environmental change process and groups that go through the stages of the privatism process - categorization process - labelling process - marking/identity expression process.

Identification in discussing spatial changes in the past and present can be analyzed according to (Nurmayanti et al., 2017) namely, organization, function, hierarchy, orientation, and territorial space. Changes in aspects of the spatial system can be observed through three indicators, namely addition, subtraction and displacement which can affect the layout and territory of space utilization (Nurmayanti et al., 2017).

2. Method

This research is included as research using explorative descriptive-qualitative methods, which will reveal a problem or situation or event as it is, to get facts (Ishtiaq, 2019) (Chali et al., 2022). This descriptive study presents the identification of internal spatial dynamics in the *Pendalungan* Madurese community dwellings in Ganjaran Village according to the stages based on the twelve processes of spatial dynamics according to (Asikin & Wulandari, 2016). Observations were made on the dynamics of architectural space at the macro, meso, and micro levels. The process of collecting data to study the dynamics of architecture at the macro scope is carried out by observing/studying the formation of *Pendalungan* Ganjaran Madurese community settlements. In the micro, observations were made on residential objects that are 50 years old. In the micro space using an analysis of three building cases, namely art deco, *palembaran*, and *klening* house. Data collection methods were carried out using field observation techniques, in-depth interviews, documentation, and architectural measurements. The research design is of a qualitative type, while the research strategy is of a descriptive type.

RESULTS AND DISCUSSION

Ganjaran Village was originally a village structure inhabited by Javanese people. In 1900, Madurese people who were dominated from the Bangkalan region began to enter Ganjaran Village to settle down. The settlement shown in Ganjaran Village is found with a pattern of settlement arrangement with a certain level. The residential pattern in Ganjaran Village is like Madurese architecture. Although in terms of naming, function and meaning it does not same with settlements in Madura. This shows the influence of culture and the environment on the residential architecture of the *Pendalungan* Madurese community in Ganjaran Village. This residential pattern is border by yards between one another which forms a small environmental enclave consisting of several dwellings bound by a common yard and sometimes there is a *Musholla*. The existence of *Musholla* is a sign of an enclave of the house group. The orientation of the house is facing the road with the direction of the house facing north or south. The architectural space of the *Pendalungan* Madurese community settlement in Ganjaran Village has changed and renewal, although very slowly. The spatial dynamics of architectural in the *Pendalungan* Madurese community settlement in Ganjaran Village is analyzed on a macro, meso and micro basis as follows:

1. Macro Space: Settlement in Hinterland Malang

The formation of Ganjaran Village was dominated by Madurese migrants who settled who were dominated by the Bangkalan area. The initial stage consists of the initial process of Privatism and the Clustering Process, namely where the initial stages of village occupants are at the beginning of village placement, namely occupying the northern most area. Madurese people. Its formation started from the west side of the village to the east, then developed northwards towards the south. The growth of settlements in the village of Ganjaran is a pattern of community settlement growth which is divided into two zones. The visible zone to the west is made up of residential buildings. The southern zone consists of rice fields, plantation, and *tegalan*. With the growth of the Ganjaran settlement, the community still maintains the area of agricultural land and does not change its spatial pattern. settlements are still maintained in the condition of existence in the western zone. The division of the zone is included in the Clustering Process.

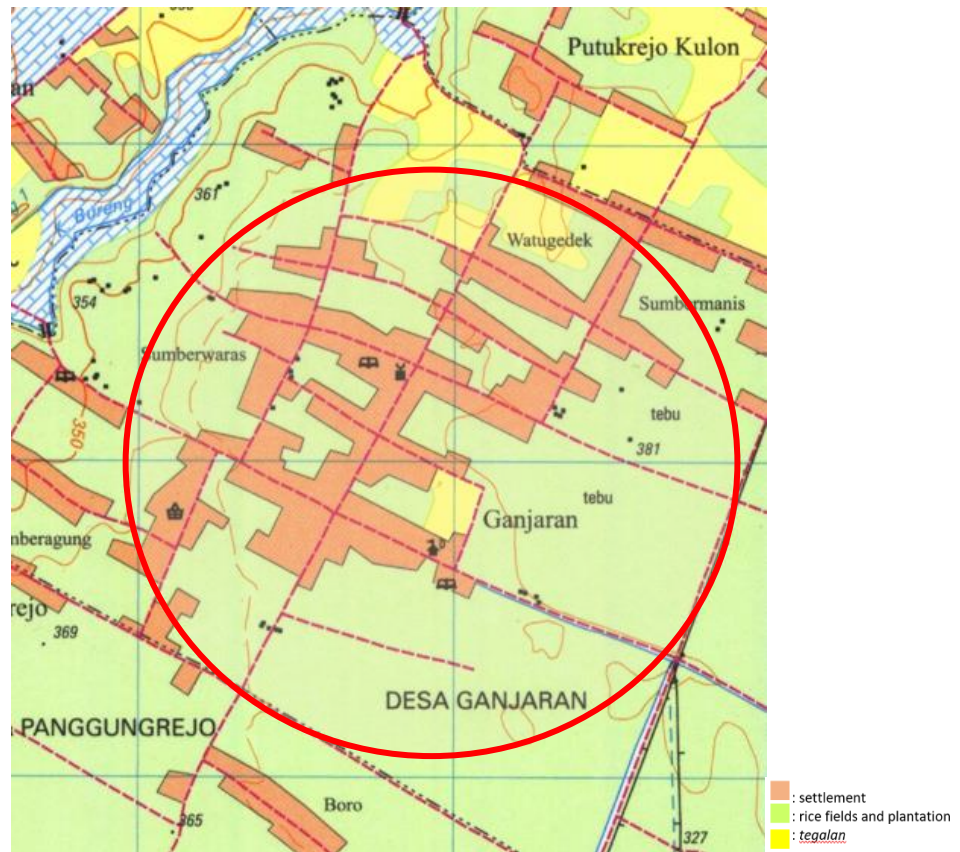


Figure 1 Clustering Process on macro space

Inclusion-exclusion process, namely by polarization between the "new" and "old" areas. At this stage it is shown by grouping areas with building conditions based on the year the building was built, finally it is obtained that these buildings represent each building age which is also influenced by the condition of building owners based on their generation from 1900 to the present. The grouping was found to be from 1900 to 1950 from the third generation of owners, from 1950 to 2000, and from 2000 to the present.



Figure 2 Polarization of Building Area Processes in *Pendalungan* Settelment

2. Meso Space: Settlement in Hinterland Malang

The meso space shown in the *Pendalungan* community settlement in Ganjaran is the presence of dwelling groups bound by the courtyard and sometimes the presence of a shared *Musholla* as a marker of the meso space. Categorization process stage occurs in the dynamics of meso space, which is shown by the existence of spatial classification when there is interaction and socialization in the spaces they agree on (streets within the dwelling group, *pelataran*, *musholla*, to the use of the *emper* in each dwelling). In the process of spatial grouping, transformation from Madurese architecture, is indicated by not labeling *tanean lanjhang* on the residential group. There are new terms adapted to new environmental and cultural conditions.

The classification process is a continuation of the categorization process. Dwelling groups choose a certain arrangement according to their new space and environment, namely the Malang area, especially the Ganjaran area. The variation of the meso space that is formed does not emphasize the shape of the elongated *pelataran* and the existence of *musholla* as the center of the group of dwelling such as the spatial structure of the Madurese settlement. The meso spatial pattern emphasizes the creation of clusters of residential groups facing north-south together with a *pelataran* in front of each dwelling to divide the other house.

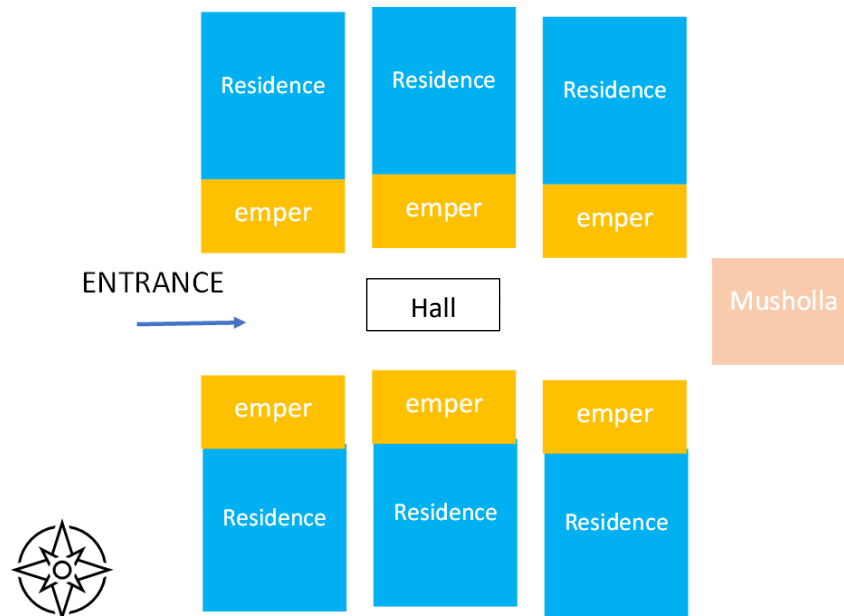


Figure 3 Meso space in the *Pendalungan* Community Settlement Ganjaran

3. Micro Space: Pendalungan Community House in Hinterland Malang

The classification process is the process by which a group of people chooses the internal spatial order according to the new environment. This process is shown in the dynamics of the transformation space hierarchy of Bangkalan Madura Architecture. This process is shown the formation of changes in its dimensional differences. In the *Pendalungan* community, the hierarchy is formed in one building unit, while in Bangkalan Madura, the hierarchy in the house itself consists of private and semi-private hierarchies for other hierarchies represented in one unit in *Tanean Lanjhang*.

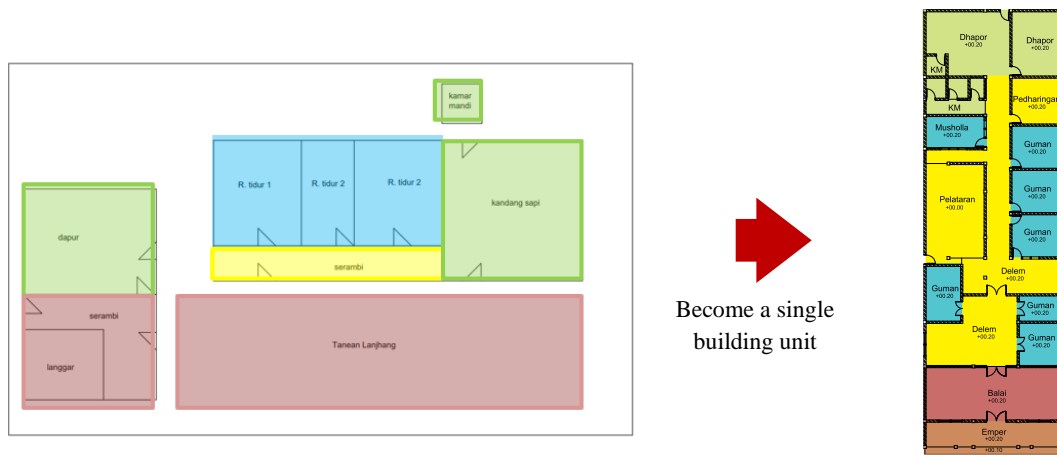


Figure 4 Classification process in *Pendalungan* Community House

The labeling process is a form of spatial dynamics that occurs in the residential communities of Madura *Pendalungan*, because they shape the spaces in their dwellings according to the owner's economic hierarchy, livelihood factors, and their needs. Residents have determined a type of arrangement that makes it easier for them to remember the function and needs of each part in the single space that was first formed.



Figure 5. Labelling Proses in *Pendalungan* Community House. Art deco house (a), *palemangan* house (b), and *Klening* house (c)

Bordering The process of providing boundaries for one room with another room to simplify and clarify the function of each. The bordering process was shown in the *Pendalungan* community house, limiting space during the event and receiving guests at the beginning of the formation of the residence in *Balai*. As a result of the strong influence of Islam, the separation between the genders of women and men is very strong. Spatial separation can be in the form of massive walls, different spaces or intangible. In its development, the hall room separator is no longer used.



Figure 6. West Balai (a) and East Balai (b) in *Pendalungan* Community House

Bordering The process of trying to control the access it controls by creating a space that has a border. the territoriality of the *Pendalungan* house is shown in *Pelataran* which is in one building unit. *Pelataran* is a characteristic of the *Pendalungan* community house as a place to dry their crops, although now its function has shifted to no longer drying the crops. Bordering is indicated by creating an outer space in one part of the inner space which functions as the home owner's private space. *Pelataran* which is the inner space is only owned by art deco and *palembangan* houses.

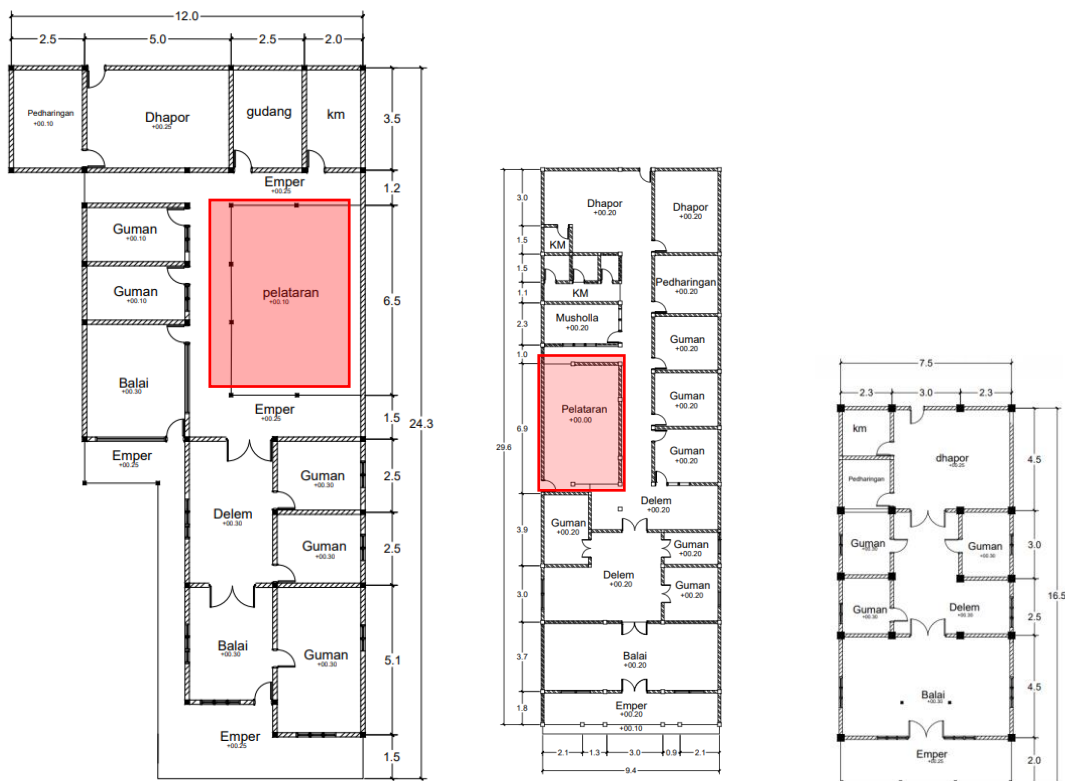


Figure 7. *Pelataran* in *Pendalungan* Community House. Art deco house (a), *Palembangan* house (b), and *Klening* house (c)

Marking process is indicated by the shape of the courtyard and *pedharingan* which distinguishes it from the surrounding dwelling spaces. As a result of their livelihood factors, namely cultivators. The prayer room, which in its development has become a part of the building unit, has become a new characteristic and has become “*ruang sakral*” that must exist in every residence of *Pendalungan* Community house, as a result of the Islamic religion which is one hundred percent adhered to by the people of Ganjaran Village.

The process of environmental change arises from the development of an increasingly strong Islamic religion, the times, and economic changes where initially farming communities now have a variety of livelihoods. Environmental change process as an effort by homeowners to improve their living arrangements. It is shown in the dynamics of the function of space in the *Pendalungan* Madurese Community House based on the transformation from their area of origin, namely Madura and continued with the development of the dynamics of function at the beginning of the formation of the dwelling which has developed changes in the current function of space.

4. Analysis of Spatial Dynamics of *Pendalungan* Community Settlements in Hinterland Malang

The dynamics of architectural space at a macro space is composed of the stages of the privatism process, clustering process, and inclusion exclusion process. Categorization and classification processes occur in the meso space. The process of dynamics in microspace begins with the classification process, followed by the process of labeling, bordering, mark identity expression, and ends with environmental change.

The dynamics of macro and meso space have sequences that show dynamics based on the process of modification of the original architecture, namely the process of privatism. The dynamics of the architectural space in the macro scope shows the process of forming its identity expression through the clustering process, and the inclusion exclusion process. And in the meso space it is shown in the Categorization and classification process.

The dynamics of architectural space in the micro space, namely in the *Pendalungan* community shows the process of forming the expression of their identity in the dwelling with the stages shown, namely the process of classification, labeling, followed by bordering and continuing to realize the identity expression of the spatial character of the dwelling. Along with the development of the times, supported by internal and external factors, finally the process of spatial dynamics in their dwellings goes through a process of environmental change which can be seen in the structure of their dwellings.

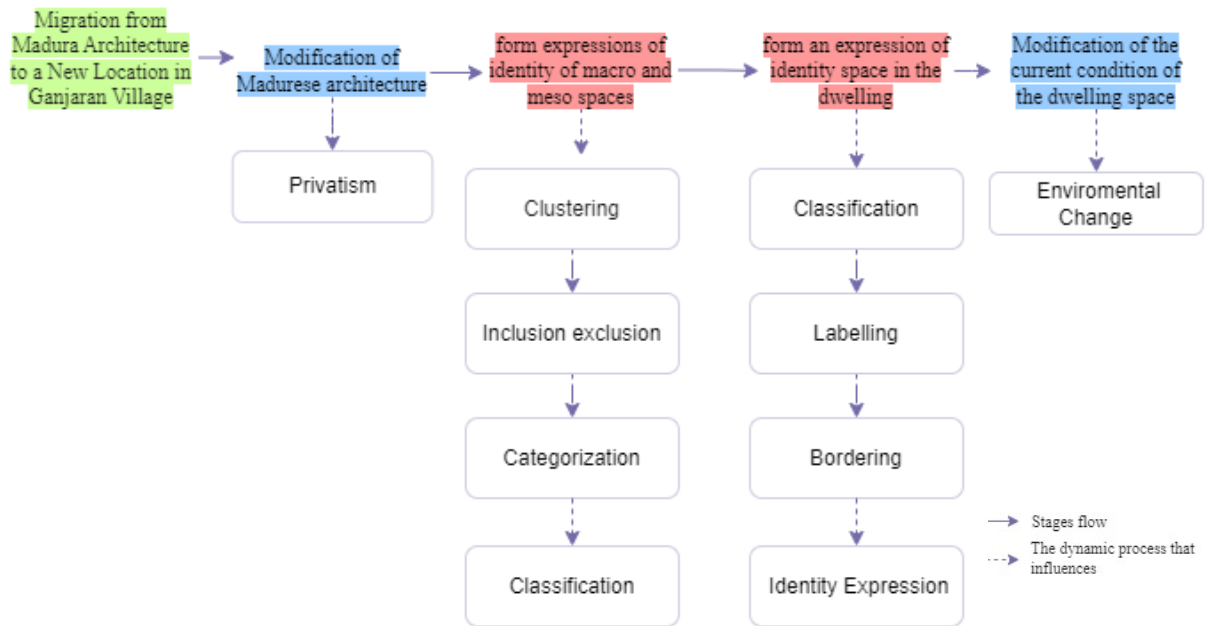


Figure 8. The Process of Dynamics of Architectural Space that Occurs in the *Pendalungan* Community Settlements

CONCLUSION

The dynamic process which is composed of twelve stages of the process begins with dynamic processes shown in the macro and meso spaces, and ends with dynamics in the micro space. The sequence of dynamic processes in the *Pendalungan* Madurese settlement starts from the process of privatism, clustering, inclusion exclusion, categorization, classification, labeling, bordering, identity expression, and ends with environmental change..

The dynamics shown by the *Pendalungan* community in determining the expression of their identity shows that adjustments emerge in a dynamic society. Factors that influence the dynamics of architectural space, such as cultural activities, will actually add color to the architectural space. The dominating factors appear to influence the dynamics of space in the *Pendalungan* Rewards community, namely religion that is adhered to by the community at the economic level, and livelihood factors..

The expression of architectural spatial identity is very important in a communal and cultural society. This existence is to prove the existence of migrant communities in an environment that is different from the surrounding conditions. The Madurese people, who are known to this day, have a very strong character that requires cultural compromises when present in a new natural, social and cultural environment. As can be seen from the *Pendalungan* community settlement in the Malang hinterland area. By modifying the area of origin, forming an expression of identity and modifying the influence of current conditions, a new variant of the *Pendalungan* architectural space in the hinterland Malang.

Analysis of the study conducted on the dynamics of architectural space in the macro, meso, and micro scope of the *Pendalungan* community settlements occurred in hinterland region. To further complement this study, it can also be done by examining migrant settlements with different ethnicities with different location conditions.

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