

# Spatial Changes In The Rantau Ulayat Area Case Study Tarok Nagari Kepala Hilalang

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## Abstract

The spatial changes of a traditional area, especially at Tarok Nagari, Kepala Hilalang, Padang Pariaman Regency, West Sumatra, which is called *rantau*, found problems related to differences in the definition of the area, boundaries, location settings, and development of patterns that were formed far from the control of the Mamak Pusako (the head of a tribe) to collective inheritance. With the changes in spatial planning that occur, it is necessary to study spatial changes to optimize the potential for spatial planning, especially in traditional areas that are hereditary. The method used is a normative approach to customary inheritance through qualitative and quantitative analysis for mapping inheritance patterns with behavior-mapping techniques. Strengthening data from informants regarding the description of regional development is carried out with the support of Design Guidance Structure theory, land use triangle theory, regulations, and related literature. Space syntax theory is used to analyze patterns that occur before the study is carried out. Temporal data based on the period before and after the land inheritance process were obtained through interviews with indigenous peoples' leaders and resource persons as well as literature studies on related Tanah Adat. The research results on inheritance land spatial planning based on the customary law approach (ulayat) provide ambiguity in the spatial and setting arrangements. Meanwhile, the Space Syntax theoretical approach shows the existence of a network from the development of functions and the potential for access. Where Mamak Pusako cannot see this process, it raises the issue of lack of spatial control and development

**Keywords:** *behavior mapping; customary law; space syntax; spatial planning; ulayat land*

## Introduction

The impact of urbanization (Anisa & Purnama, 2010) with population development, expansion of urban areas, and industry cause changes in the order of life (Yunus, 2008) and spatial changes in areas related to land use patterns (Yunus, 2015). Land use is not only for urban but also traditional areas that are formed based on settlement structures that affect the formation of physical elements that form a pattern (in the form of places, trajectories, boundaries, villages, and orientations), where

the settlement structure is formed based on the kinship system, social strata, and belief (Paru, Sasongko, & Imaduddina 2018).

Changes in regional transformation due to urbanization also occurred in Ghana, Africa (Akaateba, 2019), which affected Tanah Adat arrangements and planning sustainability (Cobbinah, Asibey, & Gyedu-Pensang, 2020). In Nigeria, the policy roles of authorities and communities also influence the region's transformation (Onyebueke et al., 2020). Other factors, such as management control of sustainable development, such as in Kumasi Africa, have also become conflicts in Tanah Adat (Mintah, Amoako & Adarkwa, 2021).

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Indonesia itself, in the land coalition forum held in Bandung, recorded as many as 667 agrarian conflicts in 2017, with an area of 500 thousand hectares of land that still cannot be handled (Data Land Coalition & Global Land Forum, 2018) both in terms of ownership, and so on are divided based on the typology of cases by the National Land Agency (Kementrian PPN – Bappenas 2013).

Problems related to administration as part of physical data administration related to land in the form of land parcel maps also impact several spatial crises that occurred (Feronika, Fendri, & Mirawati, 2019). Besides, the development also does not consider sustainability, spatial planning, and environmental carrying capacity. Therefore, it reduces the quality and quantity of natural resources and the environment, as well as increases spatial use conflicts.

Not only cities, the peri-urban areas, including rural areas, are areas with local genius (Kasuma & Suprijanto, 2010) and shared values experienced changes in shaping spatial patterns (Yaroseray, 2019) where domination occurs in agricultural land and forests according to Yu et al. (2011). A conversion function from agricultural land to non-agricultural land is no exception for customary areas (Shohibuddin, 2019). Also, a change or transformation of the traditional physical settlement (Bukit, Hanan, & Wibowo, 2012) causes a blurring of functions between traditional and modernity in physical buildings in traditional areas (Mendra, 2016). Other factors outside of architecture include increasing and decreasing population, the existence of opposition from the community, and the influence of other people's cultures which have influenced the previous spatial changes (Kurniawan, Faisal, & Kurnisar, 2019).

One of the customary areas in Indonesia is the *rantau* which is the locus of the case study researchers, namely Korong Tarok Nagari Kepala Hilalang, Padang Pariaman Regency, which is a development area of the *luhak/darek* region or the early region of the Minangkabau region (Zainuddin, 2014). The form of the Nagari government was assisted by the *Kerapatan Adat Nagari* (KAN) and *Badan Permasyarakatan Nagari* (BPRN) in running the Nagari government system (Prima & Rusli, 2014). Including its peri-urban areas because it borders the city of Padang, Padang Panjang City, and Pariaman City. Also, based on the

Regency's RTRW, it is included in aquaculture areas and the development of new areas.

The initial observation data shows that the customary law adage "*lamak dek awak katuju dek urang*" has not been implemented and the adage "*raso jo pareso*" in the sense of acting concerning surrounding conditions and not arbitrarily (Zainuddin, 2014). Mainly related to land use problems due to differences in the definition of distance, boundaries, area acquisition, and future land use considerations while maintaining the existence or existence of ulayat/ *Tanah Adat* (Mudjiono, 2004). Considering *Tanah Adat* as a form of community existence with customary territories (Warman & Andora, 2014), it is necessary to pay attention to the change from collective ownership to private ownership. The management of *Mamak Pusako* control and the lack of customary law related to spatial planning complicate land administration in managing ulayat rights of inheritance that are hereditary. Including the change of agricultural land into non-agricultural such as factories/industries and medium-scale livestock.

Germany applies the method of compulsory readjustment, in which the community must give control over the land to the government. Besides, Japan also uses the participatory or compulsory method in democratic land, where every community participates in managing the land (Sitorus, 2006).

There are several approaches in Indonesia with the customary territory (*wilayah adat*). The first is consolidation, applied in Gedebage, Bandung, to support regional development and regulate regional spatial planning (S, Nurlinda & Pujiwati, 2011). Second, the West Kalimantan area since 1992 has implemented participatory mapping based on Kalimantan government participatory mapping in 2013 as well as in Tigo Jurai, Tanah Datar Regency (Ashari, Helfia, & Febriandi, 2019). Participatory mapping was also carried out in customary forest areas in the Bulukumba area of South Sulawesi (Fisher et al., 2020). The other method is village-based spatial planning to organize customary law areas (Sutaryono & Widiyantoro, 2020:24).

The existence of regional autonomy policies and Presidential Decree no. 9 of 2016 concerning the Acceleration of One Map Policy/PKSP becomes important in Complete Systematic

Land Registration to overcome the problem of identifying the clarity of existence and territorial boundaries of customary rights (Supriyanti & Wulansari, 2019). Moreover, customary/ ulayat land is land banking for the next generation's survival (Darwin, Winarso & Zulkaidi, 2017).

With these issues, policies, and approaches to maintaining the existence of customary land, this study aims to identify the spatial changes and regional developments that occur. Thus, it will optimize the potential of *Tanah Adat* and minimize the impact of peri-urban developments and become inputs in controlling customary collective lands related to changes in land use.

## Research Methods

In this study, preliminary observations and in-depth knowledge are needed regarding the inheritance process and the behavior of indigenous peoples related to land use patterns that cause spatial changes. Qualitative research methods through a normative approach are critical to seeing the error in applicable norms (Diantha, 2015; 16). At the same time, the quantitative method was used for mapping the inheritance pattern of ulayat land. In addition, this study tries to decipher the data and analyze it so that there is an update in theory development.

To obtain data adapted to research conditions, time, and objectives, a purposive sampling technique on informants who understand a condition related to the research is used. Qualitative primary data were obtained from informants: penghulu, Mamak (head of inheritance, indigenous peoples), and sub-agency Nagari government utilizing triangulation techniques (observations, interviews, and documentation related to the inheritance process). Qualitative secondary data were obtained from literature: Regional Regulation No. 6 of 2008 concerning ulayat land, RTRW of Padang Pariaman Regency, traditional books on the philosophy of Minangkabau people, Minang realm and the environment, Sumatran history and its people, and documents in the form of certificates (land inheritance). Qualitative analysis is carried out using a behavior mapping approach to study user behavior, activities, and needs. Also, to strengthen the data from informants regarding

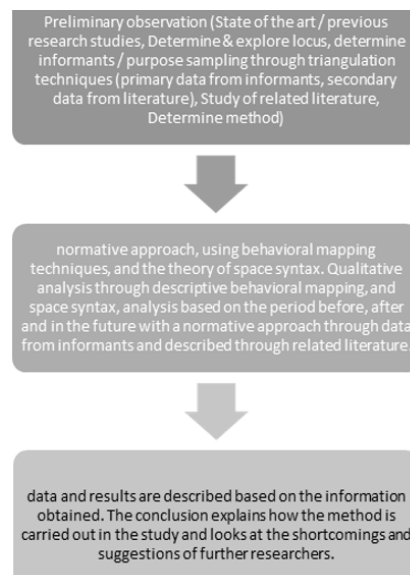
the description of regional development, the theory of Design Guidance Structure is used, with the theory of land use triangle, regulations, and related literature.

Data analysis is based on the period before, after, and in the future with a normative approach through traditional community leaders, resource persons, and related literature. Moreover, the space syntax approach and theory are used to see the pattern of the network formed (Siregar, 2014) due to the development and changes in the *rantau*.

*Rantau* consists of the coastal areas of the island of Sumatra, namely Pasaman, Pariaman, Padang Pariaman, Padang, and Pesisir Selatan regencies (Zainuddin, 2014; 6). The Nagari government system, which is the institution of Kerapatan Adat Nagari (KAN), has functioned as the executive, legislative, and judicial bodies. CAN consist of Ninik Mamak, Alim Ulama, Cerdik Pandai, Bundo Kandung (representative of Minangkabau female figures), Jorong delegates, and youth delegates (Prima, 2014).

The research locus was chosen based on the development and changes in tanah adat ulayat. The rantau that meets those criteria is Padang Pariaman Regency, where the locus is in Korong Tarok Nagari Kepala Hilalang. Based on the local government's Spatial and Territorial Plan, the area has a new development as a cultivation area and is working on road infrastructure.

The following diagram is the approach taken by the researcher.



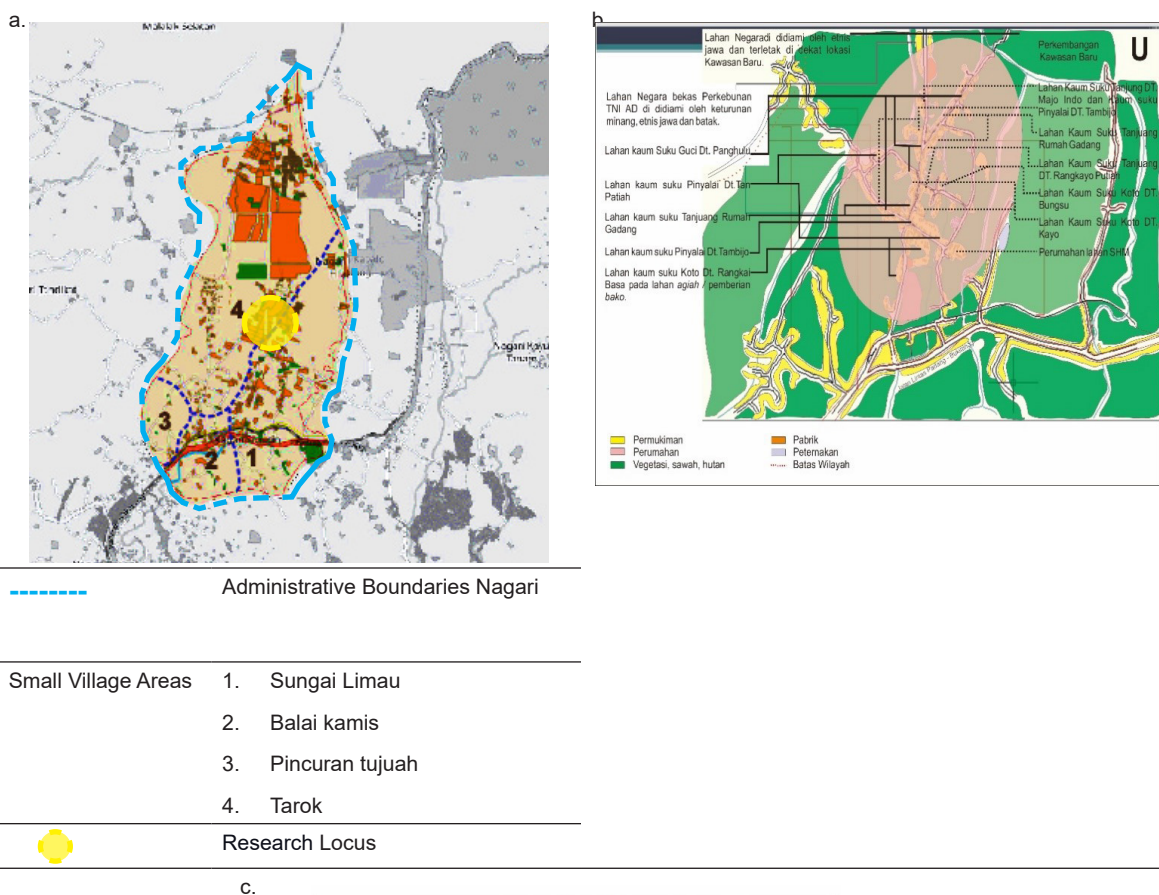
## Result & Discussion

District 2 x 11 Kayu Tanam is the second largest sub-district after Batang Anai, with a relatively low population density. This sub-district is an area traversed by inter-city transportation circulation access routes within the province and is traversed by the Padang – Padang Panjang railway (now operating Padang – Kayu Tanam). The area is bordered by Padang Panjang City, Padang City, and Padang Pariaman Regency. This sub-district

is one area that manages springs in Nagari Kepala Hilalang, including Sling, Elbi, and SMS (drinking water factories).

Nagari Kepala Hilalang is an *rantau*, or a *luhak* development area. The first tribe inhabited this area was the jambak tribe, with the head of Dt. Rangkayo Mulie who comes from luhak. Thus, the Datuk's customary territory is the king and ruler of the Nagari Kepala Hilalang Region. Then came other tribes such as Tanjung, Panyalai, Koto, and Guci, which according to

Figure 1 a. Existing Areas & Administrative Boundaries; b. Tanah Adat ownership; c. Regional morphology  
 Source: Re-schematic from field data by researcher





the customary government system, are tribes with power under Dt Rangkayo Mulie and are called *ampek suku lubuak langih* (four regional tribes of Lubuk Langih). And according to customary territory, the affairs of each people are left to each tribe. This Nagari consists of 4 small village areas: Pincuran Tujuh, Tarok, Simpang Balai Kamis, and Pasa Limau (Yenita, Marsis, & Putri, 2015).

From the data, there is a change in livelihoods, which were originally agrarian to modern, with predominantly private jobs, which is the impact of changing productive agricultural land into industrial factory land, livestock, and other medium industries. In addition, there is a change in regional characteristics (Antariksa, 2016) and the orientation of road circulation access and behavior (Hariadi, 2010) in shaping land patterns.

#### **Analysis of Tanah Adat Development Patterns**

Changes in spatial patterns and land use transformation at the research locus were analyzed using the Regional approach (Tarigan, 2005) as follows; Current space usage, Activities that change the use of space, and Projection of future use of space.

The regional approach complements the questions of the sectoral approach, such as; Which locations will develop in economic activity, Projection of the development of new settlements and population growth in the future, Changes in the structure of space and infrastructure needed to support the region, The balance of infrastructure in the centers of settlement and economy, also Connecting network in the form of transportation for access to residential and economic centers.

The following is an analysis of the transformation of space utilization that occurred;

Analysis of current space usage:

- a) Which locations will develop in economic activity

The beginning of a change in spatial transformation at the research locus occurred in the 1980s with the development of Islamic Boarding Schools and drinking water factories that used Nagari's land. In

the 2000s, there was a spatial change from agriculture to cultivation for drinking water factories, livestock, services, renting, trading, and others. This resulted from the existence of jobs in the form of factories. Therefore, the orientation of the surrounding community considers the land as an economic value. The dominant land changes occurred in the central part of the area where some houses have two functions as a place to live and for business.

The trend at the research locus is the change in space in the new economic centers, which is formed by the social structure (Yaroseray, 2019) of each tribe in managing their communal land space. With the addition of existing building functions from the development of the new northern area of Tarok City, it has had an impact on changing land ownership to freehold ownership (SHM), new economic growth, and new tourist attractions. Thus, it is projected that the most significant development will occur in the northern part of the land adjacent to the new development area.

The development that occurred in the transformation of space which was originally in the form of *Taratak* into Nagari (Dewi & Azmi, 2018) with stone or *Pasupad* (geological boundaries), shifted by reducing the boundary distance between the current generation's inheritance parcels. Meanwhile, the village's character, which was originally agricultural, has become a land with mixed economic development.

The characteristic form of the socio-cultural location of the community at the research locus is a concentric pattern with settlements in the middle surrounded by paddy fields, and the elongated pattern along roads and rivers is still maintained (Murdiyanto, 2008). Thus, on the one hand, the peri-urban influence can be seen (Yunus, 2008) in the form of physical appearance as land use for trade, services, industrial factories, and so on.

- b) Changes in the structure of space and infrastructure needed to support the region

At the research locus in Nagari Tarok, there was a change in the spatial structure of the Kepala Hilalang. The land originally intended

for agriculture has turned into land with the functions of factories, trade, services, entrepreneurship, livestock, and freshwater aquaculture. Thus, the orientation to land with the area's development becomes an economic orientation.

This new orientation is indicated by the presence of adding functions to existing buildings into a place of business, such as stalls, wholesalers, and cafes. Infrastructure must be added to support regional activities, including public transportation, waste management, environmental management, public open and green spaces, and warehouses. Also, the need for consideration of access or transportation for loading goods.

At the research locus, land which was originally agrarian due to the influence of peri-urban and economic development did not consider the region's future development. So there is a mix of land use.

- c) Connecting network in the form of transportation for access to residential and economic centers

To connect the residential and economic centers at the research locus, there is mass transportation in the form of cars that operate Monday and Friday to serve the mobility of the population to the market in the south. It is estimated that before 2005, public transportation cars did not operate because people used 2-wheeled vehicles for mobility. Meanwhile, from 2015 until now, mobility using motorcycle taxis has decreased because people prefer to use private vehicles.

### **Analysis of activities that change the use of space**

- a) Socio-Economic Indigenous Peoples

The total population is around 6,890 people, with the predominance of work in the private sector experiencing a change from an agrarian job to an industrial/private worker (field data, 2019). With the addition of the Javanese ethnic population in 1964 and Batak in 1998, new housing development occurred in the 2000s due to new jobs in the form of factories, farms, and home-based work. Also, there is a change in the function

of the residence into two functions, including a place of business. There is a change from agricultural businesses to various settlement centers with home businesses, stalls, wholesalers, services, and so on for economic activities.

The social change of the people who were originally ethnic Minang who occupied the area from Taratak - became Nagari (Dewi & Azmi, 2018) with the mixing of Javanese and Batak ethnicities as well as economic development making the village more self-sufficient with the development of an agrarian economy - cultivation, which causes social mixing that is open to other ethnicities/residents, the influence of industrial development, and technology. Even though they still maintain the traditional social strata in regulating the pusako of the people (Loeb, 2013) on some of the traded lands, there has been a change in certificate of ownership (SHM), as well as changes in the function of agricultural land into cultivation.

- b) Spatial Structure and Spatial Pattern

Before the 1980s, the structure and spatial pattern that occurred at the research locus was in the form of settlements surrounded by agricultural land and roads as circulation access. Also, some buildings are used for coffee shop businesses as gathering spaces for adult men from the afternoon and evening after their activities.

After the construction of a drinking water treatment plant between the 1980s – 2000s, there was a change in the structure of the space. Settlements turned into mixed land with additional functions as a place of business.

The spatial structure of the early development is a wild forest land on the edge of a river located in Pincuran Tujuh village. The first ruler or inventor is Dt. Rangkayo Mulie, from the Jambak tribe, who comes from the luhak or darek area (from Nagari Minangkabau). Then came the other four tribes such as Koto, Guci, Tanjuag, and Penyalai, where the land for the tribes was obtained from the gift of Dt. Rangkayo Mulie. The development of land towards the north, which started as a field/place of business, became a temporary settlement area and a new residential area

for the next generation.

In these developments, there are signs within the boundaries of each area as described below:

*Taratak*: occupied by a group from a combination of several families of one tribe, with an economic life of hunting and moving places. Also, each family cultivates land parcels that are bordered by stone. According to Dt. Madjo Indo and Dt. Batuah (1956) is known as the Pasupadan stone or the boundary stone.

*Village/hamlet*: a combination of two tribes who inhabit an area, live farming, and live on the slopes or hilltops. The boundaries on the fields are given Binalak, and rice fields are given Lantak.

*Koto*: is a combination of three different tribes who inhabit the area, with the Penghulu, who holds the title Datuk as the leader of the three tribes. In the Koto area, there are already traditional halls and mosques, settlements located on hillsides and flat riverbanks, and places of business such as rice fields, fields, and fish ponds.

*Nagari*: is a combination of four hamlets/tribes that live in an area where according to (Dt. Madjo Indo and Dt. Batuah, 1956) in (Dewi & Azmi, 2018), the community must follow the customary law that applies in Nagari. In Nagari, people live by managing forests, fields, and rice fields with permanent settlements Hermayulis (1988) in (Dewi & Azmi, 2018). Boundaries on parcels of land that are occupied or processed are marked with stones. The boundaries of the Nagari area are the tops of mountains or hills with views of two rivers, abandoned and abandoned land, and ravines with flowing water.

Related boundaries are also described for rice fields in the form of *Lantak*, with a distance of one cubit from the lowest rice field bund. One cubit is equal to 45 cm, and one fat hom is equal to 1.6 – 2 M, or according to the book Data Architect Neufert Volume I, one dapo / fathom is equal to 1.75 - 2 M.

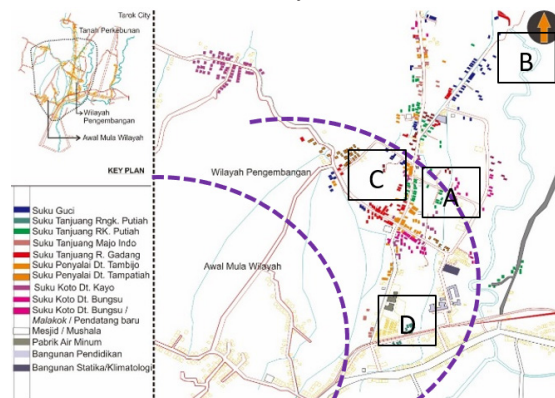
What happened at the research locus for

the boundary was using ditches, Pasupadan stones, and hedgerows. In the formation of Nagari the researcher described it with the theory that the formation of Nagari, according to Iskandar Kemal (2009) in (Dewi & Azmi, 2018), is a development of the smallest genealogical relationship that inhabits. From the group of people, they formed a tribe, and from the four tribes that existed, they formed Nagari. The main social structure that exists in the form of tribes or matrices is an exogamous trait, according to Mochtar Naim (1979) in (Dewi & Azmi, 2018). Residence in the same location is occupied by the same tribe because it has territorial genealogical ties, and the village is the territory's boundary.

c) Patterns of Tanah Adat Use and Persil Heritage

Based on the pattern of development of Tanah Adat and parcel inheritance, the researcher took three samples based on the criteria for utilization and the limitations of the data obtained. Namely, a land in the back for migrants (occurring in the tanjuang tribe of Dt. Rangkayo Putih), changes in access for other people (occurring in the tanjuang tribe of Dt. Das), and land in the front area near the road for all generations (occurring in tribal people) Guci Dt. Penghulu Basa) as well as the use of inheritance/ agiah land. Before taking samples based on the utilization criteria and the problems that occur, the researchers mapped the area.

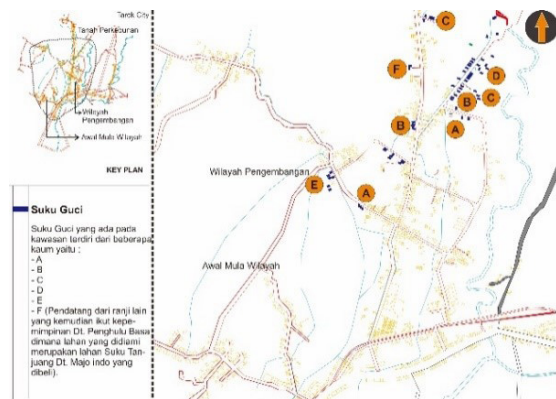
Figure 2. Distribution pattern and land use  
Sources: Field data redrawn by Researcher, 2021



### Land Use Patterns Guci Dt. Panghulu Basa (Fig.2B)

Figure 3. Land use patterns Guci Dt. Penghulu Basa

Sources: Field data redrawn by Researcher, 2021



The land used by the Guci tribe is in the northern generations of A, B, C, and D. Later, several generations bought land belonging to other people by means of Taruko or worked on uncultivated land. The pattern of land use for housing is in the form of groups along the road for one ranji (a kinship relationship) with the back of the land for the rice field farming area.

For the area of each generation, on average, they have a land area of 65 – 70 M2 for housing, and some are more due to the fact that there are fewer female successors, while the land owned by each generation is large enough to be distributed, and the location factor is either near the road or in the back area. There are parcels of land for each generation that use commensurate boundaries in the form of hedges, stones, gutters, and roof beadings. Associated with the theory of genetic boundaries, according to Dt. Madjo Indo and Dt. Batuah (1956) in (Dewi & Azmi, 2018), known as pasupadan stone or boundary stone, has a developed of signs for boundaries adapted to land conditions and other considerations.

### Land Use Patterns Tanjung Tribe Rumah Gadang Dt. Das (Fig.2C)

In the land use of the Tanjung tribe, Rumah Gadang Dt. Das, several conditions resulted in changes to the access point intended for other people whose land is in the back area. The development pattern of the built-up land begins around the first mother's land, inherited with the principle of unity so that most of the land is built on the mother's land.

The process is built in stages according to the conditions of the generations of heirs, both in terms of economy, needs, and other factors. Regarding the area of the Mamak pusako, it considers the capabilities and needs. The land's condition is on the neighborhood's main road, and the dominant buildings are stalls and residences. In this case, the inheritance of the pusako land is directly divided among each descendant.

From the beginning of the placement, there was already a boundary between the descendants of the inheritance area since there were not many female descendants. Therefore, the inheritance of the pusako land is directly divided according to each mother, where Tanah Adatis a unilateral principle / one maternal lineage.

Based on information from the family, there is an agreement between the heirs at the front and those who own the back land. However, because there is no permanent guideline, there is a shift in access to circulation and other natural factors. There is also a conflict between generations of heirs regarding the boundary distance of the parcels/lots of each land.

There are no documents regarding the boundaries between people with one lineage. As well as the lack of documentation and changes to boundaries in the form of stakes caused by other factors such as shifts due to repairs to facilities related to PLN and PDAM. As well as the weak coordination and customary law that regulates the recording of Tanah Adat documents.

The unclear boundaries between parcels of people of different descent but still in the same tribe create social conflicts regarding the clarity of access and boundaries of parcels of land. This discrepancy occurs because the information is based on oral, and the lack of maps in the form of documents containing agreements and customary maps of the people. Associated with the theory of genetic boundaries, according to Dt. Madjo Indo and Dt. Batuah (1956) in (Dewi & Azmi, 2018), known as the pasupadan stone or boundary stone, what happened to the land of these 2 peoples is not under the theory of the existence of boundary distances for the public interest.



### **In agiah land-use patterns (Fig.2D)**

In agiah land-use patterns, providing clarity of orientation and access points for circulation are not considered. Because this property is a gift and becomes an Andah Pusako property, there is no Mamak inheritance involved in the arrangement. The arrangement is based on the remaining land and the ability of the heirs to build on the given land. For the boundaries and area of each generation, they set their land area of around 60 m<sup>2</sup> that they want to be used as a dwelling. And the role of the Mamak pusako of the people does not apply.

Based on the West Sumatra Regional Regulation No. 6 of 2008 regarding ulayat land, the type of land that occurs to the Koto is not included in the type of ulayat land of the people, tribes, Nagari, and rajo. The origin of the inheritance is the inheritance of land from giving other tribes to other people because of marriage ties.

### **Research findings**

The growing population, socio-economics, changes in activities, lifestyles, and peri-urban influences impact the spatial diversity of the land. Land that originally followed customary law caused conflict because, in some lands, the role of Mamak Pusako as the controller was reduced. It can be seen that there are conflicts related to unclear boundaries, distance, access, area, and land widening without going through deliberation according to customary law, and some use public land for private use. According to customary law related to *alua jo patuik, raso pareso* (Zainuddin, 2014) shows a decline in the value of indigenous peoples. So, if left unchecked, there will be a prolonged conflict due to limited documentation as a form of lack of customary law in the recording of Tanah Adat administration and considerations for future use.

On the other hand, according to state law, in land use, there must be considerations of sustainability, justice, and compensation policies (Subekti, 2016) with a land consolidation approach (Sitorus, 2006). The clarity of the administration of Customary Land with the availability of documents in the form of maps will make it easier if there is regional development in the Customary Land in terms of

compensation to the beneficiary.

In the pattern of development of Customary Land that occurred at the research locus, customary law did not pay attention to future considerations regarding how to access, area, location, boundaries, and distances between parcels in detailed written evidence. Thus, in making written evidence to clarify boundaries, conflicts often arise. Likewise, regarding the detailed consideration of land use with the suitability of the location and conditions. What happens is that the land morphology is mixed between housing/settlements, industry, livestock, and others.

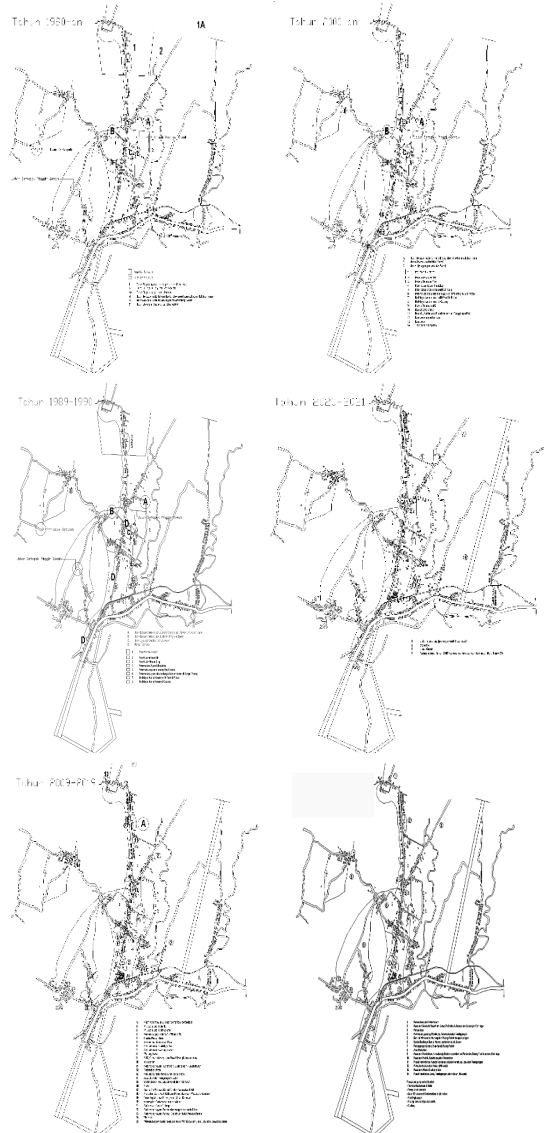
In the development of new areas, the pattern of land development with a customary law approach must be firm regarding communal land, and is not allowed to become private land or freehold ownership (SHM). On the other hand, according to Regional Regulation No. 6 of 2008 concerning ulayat land, it is permitted to become freehold ownership (SHM). However, from the analysis of the problems that occur, this will impact the loss of Mamak Pusako's control over the ulayat land. So the use of land is outside customary control because it is already in the hands of a third party. Clear and fixed boundaries are necessary so those boundary problems between lands do not occur again. This can be done by consensus deliberation for participatory map-making. Then it is necessary to carefully consider the use and control of the land on land adjacent to the development of new areas.

Meanwhile, according to state law, the appropriate development pattern is to follow spatial planning standards by considering the area, ecology, and regulations in the form of RDTR (detailed spatial plan) and RTRW (spatial and regional planning).

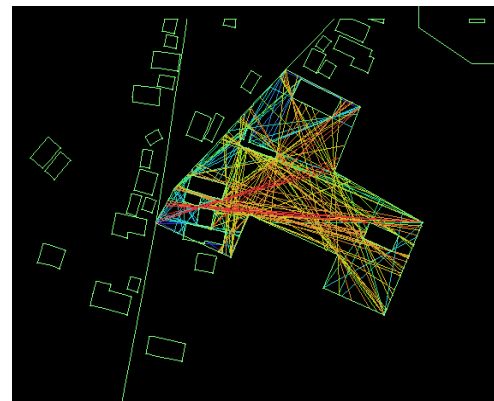
Ulayat land, a land with collective characteristics, and Mamak Pusako as, a controller of communal land use, experience a different definitions between the old and new generations in terms of spatial settings because of the social, cultural, economic, and lifestyle factors. There is a weakness in Mamak Pusako's control over inheritance land that is not limited by development far from Mamak Pusako's control. Thus, when analyzing the space syntax for equal access, the issue of inefficient access arises. While on the other

hand, the new generation develops spatial distance.

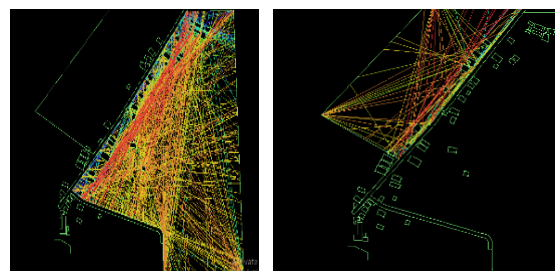
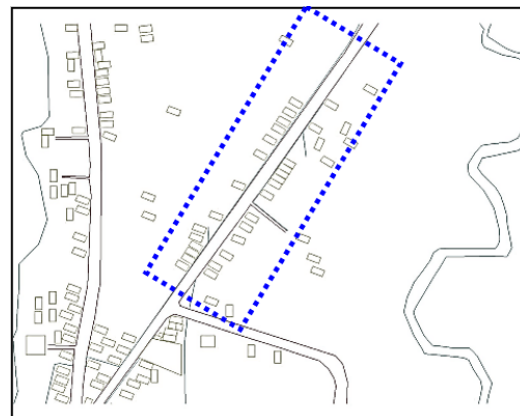
Figure 4. Space Structure Changes  
 Sources: Field data redrawn by Researcher, 2021



**Kaum Suku Tanjung Dt. Rangkayo Putihah**

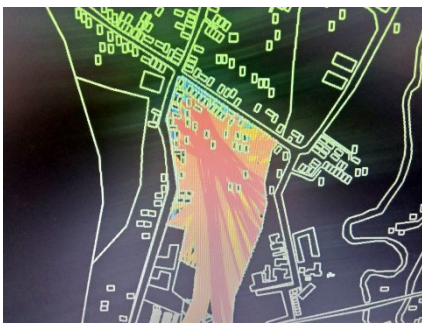
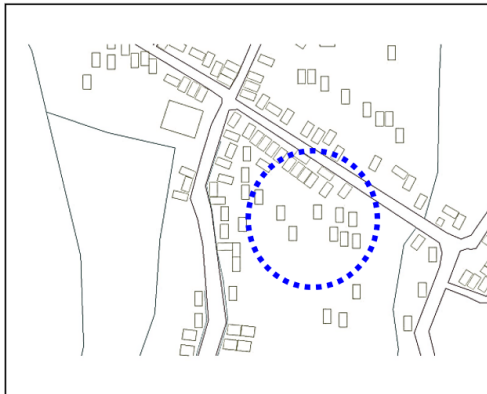


**Kaum Suku Guci Dt. Panghulu Basa**



The following areas were analyzed by looking at the network formed, developments, and changes at the research locus using space syntax analysis (Existing, analyzed, space syntax).

### Kaum Suku Koto Dt. Lux



From several land parcels at the research locus and the pattern of utilization, there are irregular land arrangement considerations for future land use. Thus, it is necessary to arrange the projections by looking at the current developments and land changes

### Conclusion

Research on regional changes in the peri-urban areas of the rantau was carried out by preliminary observations with a normative approach through behavioral mapping. To obtain information related to spatial changes, the researcher uses data that purpose sampling obtained from qualitative and quantitative data in the form of documentation or re-sketches as well as support from related literature. The area that became the research locus includes peri-urban areas, and customary law is still in effect, as well as the development of new areas.

The findings are related to changes due to the influence of urbanization, resulting in changes in the definition of spatial settings. From the phenomenology of development and spatial use of inherited land developed by the new generation, it is a development pattern by looking at the opportunities and potentials of distant lands. Analysis of the space syntax

results shows the existence of a network from the development of functions and the potential for future access development. This process could not be seen by the previous Mamak Pusako, thus raising the issue of the lack of spatial control that is currently developing.

This research approach can be used to identify regional spatial changes that are close to the conditions at the research locus. The limitation of this research is the small research area. So the complexity of other factors is still limited to be analyzed. The research suggestions are in the form of recommendations for alternative patterns of spatial function development and land use with the implementation of controlling the use of customary land. To get an effective pattern for the layout of buildings on plots/parcels, access limits, and distances through a land use triangle approach to the proportion of area, trend projections according to Ranji, and modern arrangements with the spatial configuration design approach.

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