# New Variations of Sundanese Architecture in the City: The Case of Kampung Kranggan Vernacular Settlement in Indonesia.

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#### **Abstract**

The traditional village of Kranggan is one of the vernacular villages in Indonesia which until now has strongly adhered to the traditions handed down by their ancestors. The legacy of knowledge about the way of life and village spatial planning is maintained and sustainable by Kokolot, who is a traditional elder and the main reference for indigenous people in carrying out their daily lives. The Vernacular Sundanese Village is located in the middle of Bekasi City, making this traditional village very unique with its Imah Stage architecture and Babaritan rituals. Although modernization is mainstream in urban development, they are still holding on.

This study aims to discover the behavioral values and spatial values which are the strengths of the indigenous people so that they can maintain and preserve the vernacular village. It also intends to uncover how they have adapted to the environment from the beginning until now, and what their behavioral and spatial values are.

It uses a qualitative method with a phenomenological approach, to explore the spatial experience of the community. Interviews and observations were conducted with Kokolot who possess an Imah Stage and also with the people who carry out the cultural rituals of Kampung Adat.

The paper concludes that the novelty of the Kranggan traditional village compared to other Sundanese villages is its location in the middle of the city and that the success of the Kokolot is in re-contextualizing the Sundanese values in the urban society. The concepts of behavior and space are related to awareness and spatial intelligence based on the ancestral heritage adapted to life in urban spaces.

**Keywords:** Vernacular Settlements, Kampung Kranggan, Sundanese Architecture, City

#### Introduction

Vernacular architecture is known as architecture without an architect built by the community using local materials. It is based on the knowledge passed down from generation to generation by local indigenous people. Vernacular buildings are responsive to the climate, economy and social environment (Thappa, Sharma, and Kumar, 2022). As Rapoport (1969)

says, vernacular architecture produces a sense of belonging through the materials and technologies of an area and promotes the social and cultural aspects of a society. Vernacular architecture arises from the spontaneous tasks of a community and is built without architects.

In 1964, Bernard Rudofsky through his exhibition "Architecture without Architects" promoted original architecture as a controversial phenomenon in various disciplines such as anthropology, art, social sciences, engineering, and architecture (Rapoport, 1969). Most vernacular architecture is built with the local materials such as wood and bamboo, as original local materials from the local community. Such architecture is the best way to preserve Nature and sustainably use resources.

The communities may adapt to modern materials, but by maintaining the materials used for generations, a local community can adapt to the changes that occur in the local environment. Concerning knowledge, as well as experience and wisdom, it certainly has an impact on vernacular architecture related to houses and the way they live (Sawasdee and Phiboon, 2022)

Abidin Kusno describes how vernacular architecture is known in Indonesia, from the colonial era to the post-colonial era by focusing on the "kampung" as the original entity where the authenticity of architecture lies. Vernacular is popularly read as "authenticity *kampung*" a blend of tradition and an attitude of adapting to development (Kusno, 2020). As Oliver (2007) says, vernacular settlements are inherited from generation to generation, but not in a permanent structure. They have changed as a result of people's reforms in their traditions and ideals.

Oliver studied the development of vernacular architecture in strengthening his studies. He popularized the term vernacular, with the early vernacular studies focused on architectural forms, materials, and structural styles. Vernacular architecture is a public response to the surrounding environment. It is the architecture built by the community based on its culture and environment.

This study examines the fundamental problem of how vernacular architecture could survive and remain as vernacular villages amid urban modernization. Needless to say that today's cultural heritage has been degraded by modernization which has an impact on the knowledge of architecture that grew with the people and has begun to disappear (Gil-Piqueras and Rodríguez-Navarro, 2021). Heritage architecture is not only monuments, but those which are in harmony with people, values, norms, cultural rules, and views of life (Suprapti and Iskandar, 2020). There is no doubt that caring for the original cultural heritage will strengthen local identity. Local identity is important as socio-cultural capital to strengthen the character of a city and provide superior knowledge for the younger generation (Suprapti et al., 2018).

Sundanese Traditional Villages in Indonesia are well known for their local wisdom using local materials and resources. Vernacular architecture is well maintained by the community. The Sundanese settlements retain their knowledge of building and inhabiting since the beginning of their migration from Gunung Putri, Bogor Regency to the Bekasi City area (Ali, et al., 2022).

The focus of this study is the Kranggan Traditional Village. In this village, the knowledge passed down from the first generation until now is still maintained and carried out consistently by the Kokolot (Traditional Elders). It is known that people adopting modern materials cannot be separated from the mainstream of modernization in urban development. This kind of development also occurred in the Kranggan Village because this settlement is in the mainstream of the development of major cities in Indonesia, such as Jakarta, Bogor, Depok, Tangerang, and Bekasi City itself as the parent area of the Kranggan Traditional Village.

The aims of this study are:

- 1. To identify the values of spatial behavior in Kranggan Village;
- 2. To uncover the pattern of adaptation to the urban environment;
- 3. To establish the differences in the way of living with other traditional villages.

This study first constructed a theoretical basis and contextualized itself through a literature review. It then selected the methods to gather data which were analyzed to produce the findings.

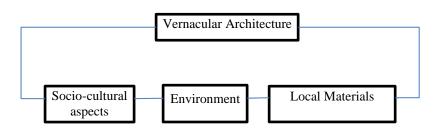
## **Theoretical Background**

If viewed from the linguistic aspect, the word vernacular comes from the Latin word 'verne' which means the local native (slave) or language or dialect; which is related to language patterns that are commonly used, recognized, and understood in a particular area (Hanan, 2022). In the context of architecture and settlements, vernacular is important to study, because, in the formation of residential spaces, it is closely related to the daily habits, as an effort to adapt to the environment. Thus, vernacularism is based on everyday experience, and it cannot be separated from the influence of local cultural traditions. Each region has a repertoire of architecture derived from cultural traditions, where local human adaptation to Nature has given rise to various kinds of behavior to cope with the climate for the sake of building comfort. Vernacular itself is the meaning of the local language. In architectural studies, this term refers to forms with the application of cultural, and environmental elements, that respond to the local climate. The physical aspects are expressed in architectural forms such as the floor plans, structures, details, ornaments, and so on.

Rudofksy offered one of the first interpretations of vernacular architecture (1967) when he talked about architecture produced without architects, Later, Oliver (2006) developed vernacular studies as a specific field within architecture.

Vernacular architecture is a phenomenon of culture that needs to be explored for local knowledge, especially in terms of the issue of cultural sustainability (Susetyarto, 2013). In vernacular architecture, buildings are generally placed in groups, or residential complexes are equipped with food storage facilities such as rice barns and are often equipped with worship facilities or places of worship for their ancestors. They represent mature and stable cultures and cultural systems that have endured for a long time. Vernacular society's belief in the power of Nature is so powerful that it encourages their people to submit to Nature (Karyono, 2016).

As illustrated in Figure 1, talking about vernacular architecture cannot be separated from the society and culture, the local environment, and the local materials used. Therefore, in the study of the Kranggan Village, the process and development of the village can be studied from the Imah Panggung architecture which has survived to this day in terms of urban settlements, the patterns of community development, and cultural rituals that bind the local community.



**Fig. 1:** Theoretical Scope Source: Authors, 2022

The focus of early vernacular studies has been on architectural forms, ingredients, and structural styles. Vernacular dwellings are passed down from generation to generation, but they are not permanent structures. They have changed as a result of people's reforms of their traditions and ideals (Oliver, 2007). Vernacular architecture expresses a conscious human sense of belonging to the environment. According to Rapoport, vernacular architecture is an aspect that elevates the culture of the community, by highlighting the material and technical aspects that are unique to an area. At first, it was described as architecture without architects (non-pedigree). Vernacular architecture is expressed as original, spontaneous, rustic action, and mostly anonymously produced construction (Rapoport, 1969).

Today, at the global level, issues related to cultural identity in architecture to form an identity, in addition to the uniqueness of the environmental aspect, are very important (Salman, 2012). Related to this, in the context of preserving vernacular architecture, it becomes an urgent matter of cultural heritage. Vernacular architecture maintains the settlements or communities with their original culture, norms, as well as social values, and local climate that continues to adapt to the existing conditions (Hamza, 2019).

#### **Review of Literature**

According to Wibowo, (2022) the Sundanese people have had guidelines for choosing the state of the land and area to live in and building buildings since ancient times. This means that Sundanese culture has always chosen the location to build settlements and first chose a house. Many studies have been conducted (Kustianingrum, Dwi; Sonjaya, Okdytia; Yogi, 2013), in the Traditional Village of Dukuh Garut. There are three patterns of population settlements with the landscape, namely: first, the Longitudinal Settlement pattern (Linear); Second, the Centralized Settlement pattern; and third, the of Scattered Settlement pattern.

There are localizations or philosophies related to place, known as Cai (Lemah means land and Cai means water: this philosophy usually exists in villages located in the mountains; Luhur Handap, (top-down): this concept shows the hierarchy of placement of a location based on the level of importance/function) Eusi container: every place in a village is a container and contains supernatural powers. The kaca-kaca is connection area and barrier in the village setting, where each village has its own characteristics depending on the location of the village. Salura, (2008) studying three Sundanese villages explain that the concept of placement is still known and used which underlies the creation of the physical container.

The Sundanese architecture according has been studied by Wibowo, (2022) He says that, cosmologically the house or stage priest is the embodiment of the world which is divided into three, namely Buana Larang (handap), Buana Panca Tengah (middle), and Buana Nyungcung (sublime). They symbolically give meaning to the Handap 'bottom', the middle five, and the sublime 'upper'. The middle world is the center of the universe and the humans place themselves at the center of the universe. That's why human habitation must be in the middle, not to the underworld (earth) and not to the world above (sky).

The original form of the Sundanese house is a stage which has a height of about 30-40 cm from the ground. The houses are built on stilts so as not to touch the ground; or as little as possible and not change the natural environment much according to the will of the ancestors (pikukuh / pamali / taboo) which if violated will bring disasters. In addition, an additional function in the stage space is a storage and prevention of humidity. A house stands on a pedestal/umpak / dedel, namely palm stones to place the pillars of the house, so that the wooden or bamboo poles (tihang) do not go directly to the ground. The frame of the house is made of wood and bamboo, while the walls both outside and as room dividers in the cubicle/gribig house are made of woven bamboo. The floor of the house is made of palupuh, namely bamboo sticks that are leveled and smoothed. Then the roof of the house is made of fibers or reeds. House connection system uses wooden pegs.

However, not many have discussed the Kranggan Traditional Village specifically as a Sundanese Village that exist in the urban context and still maintains the traditions. In general, it only focuses on architectural elements and elite activities, and does not look holistically with a more macro perspective based on conceptions and facts of urban developments.

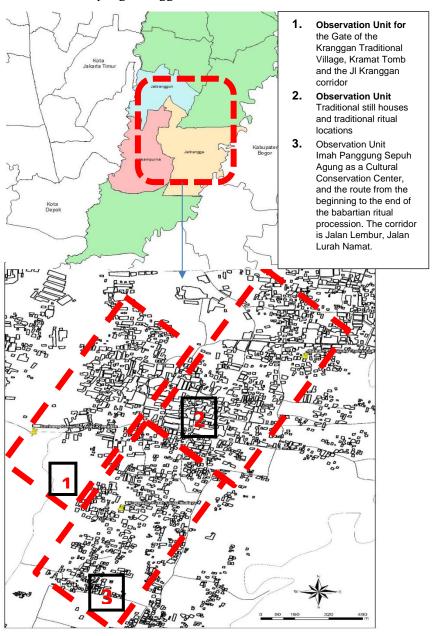
## **Research Methodology**

This study employs a qualitative research approach to explore and understand the meanings of the village (Creswell, 2010). It employs phenomenological strategies (Muhadjir, 2000). It explores the expressing of the spatial experiences of the people of Kampung Kranggan. At the initial stage, the observation (grand tour) was carried out as a whole in three villages which were the area of Kampung Kranggan before it was divided into three villages.

Subsequently, it carried out a comparative study conducted in Kampung Baduy, Cipta Gelar, Sinar Resmi, Sindag Barang, Kampung Mahmud, and Kampung Naga.

The mini-tour stages are focused on the Kranggan Traditional Village, and Jatirangga Village. observations were conducted in the three observation units, and in-depth interviews with the Kokolot and local communities were carried out to find information on units built related to the vernacular settlement theme. The survey involved students for measurements, photo documentation, and sketches.

The data was gathered according to the qualitative inductive principle, and then analyzed by categorizing, and connecting it according to the units, and describing. Triangulation of the findings is carried out by confronting the findings of each Kokolot and stage priest. The analysis is contextualized to complete the picture of urban life and its development towards the Kampung Kranggan.



**Fig. 2:** Research sites Source: Processed by Researchers 2022

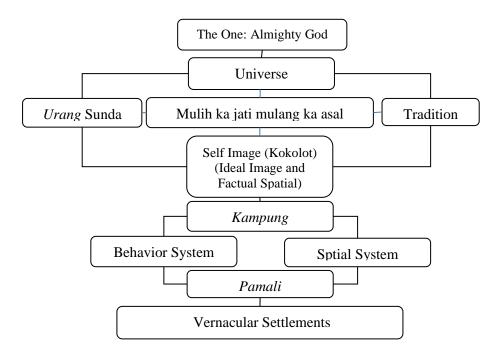
## Findings and the Discussion Kokolot *Urang Sunda* in the city

From the data and analysis, Kokolot/Olot/Abah is actually Urang Sunda (Sundanese people), who consistently speak Sundanese in their daily lives and carry out traditional Sundanese rituals, like traditional elders in Rural Sundanese villages. Kokolot, Olot, and or Abah are names attached to someone who is embedded in his family clan, even though in his family, he is younger. However, if he is the elder in the clan, then the duty as kokolot must be carried out. If one is from the kokolot family, he was legitimized by the community as a figure who becomes a socio-cultural and socio-religious reference figure to the city. In the Krangaan village, the Kokolot has a strategic role in maintaining the Sundanese cultural traditions even though they live in an urban environment.



**Fig. 2:** Kokolot and Kranggan Traditional Rituals Source: Research Documentation, 2021

The beginning of the formation of this traditional village is the migration of the Kokolot from Gunung Putri to the Bekasi area. To build a new settlement marked by the construction of the first stage priest which is currently a cultural center. In addition to the house, the Alet Sumur which is not far from the traditional house is currently sacred. It was also made by the ancestral Kokolot of Kranggan. As a traditional leader, he is a figure who is believed by the local community as a "bridge" between the ancestors and the universe. He has a "self-image" of Sundanese people who carry out the mandate of their ancestors from generation to generation.



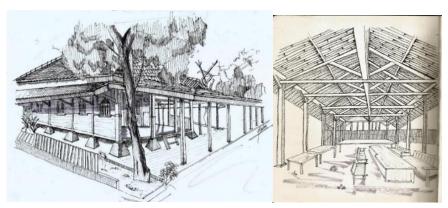
**Fig. 3:** Space Relationship Chart Source: Author, 2022

It can be seen in Fig 2. It is the researcher's construction based on the results of interviews and in-depth observations. The principle of Sundanese human life is in harmony between divinity, the universe, and humans with all their cultural rituals. Everything returns to the human self itself which is known as the philosophy of *mulih ka jati mulang ka asal*. This principle then manifested itself in Kololot as a self-image that became a role model for the community. Thus, in the next layer, these Kokolots in their service activities to the community are bound to taboos (pamali) that must be obeyed based on calculations using Kopak (Kranggan's typical calendar). This calculation becomes a reference in the behavior and spatial planning in the Kranggan Village. The basic difference from Kampung Kranggan with other Sundanese traditional villages is the role of Kokolot which is not centralized to one figure, although there are elders who hierarchically lead other Kokolot. The ritual practice is carried out by the Kokolot in the Paseban on the respective Imah Stage where the use of the Paseban is made. This is a socio-religious and socio-cultural space that forms the typical spatial pattern of the Kranggan Traditional Village.

## **Imah Stage Architecture and Babaritan Tradition**

The stage Imah in the Kranggan Village is currently very different from other Sundanese traditional villages. As a traditional function, with a strong philosophy related to the world above, the middle world, and the underworld, which is symbolized on the roof, floor, and under the floor, it is interpreted as the ancestral world, the human world, and the spirit world which is in harmony in a solid but simple and unified structure with all the properties of existing substances. The middle world as a human activity accommodates the Paseban space as a symbol of interaction between others with the value of cooperation as a characteristic of an agrarian society that is still carried and maintained in the urban environment. The shape of the roof varies with pyramid and jure models, and the Julang Ngapak roof model looks similar at the first glance, but the pyramid model does not use Amping (covering the front and back of woven bamboo).

The main room of the Imah Stage can be seen in the Fig. 4, namely the Paseban then Palupuh, and the middle of the imah (some is in the form of a los). The pangkeng room is currently used as a place to pray other than in the Paseban and the storage area is used for heirlooms and harvests and then the pawon or kitchen. Paseban is in front of the house or next to the house with the main function in traditional activities other than accommodating human relations. Babaritan (salvation) is a traditional procession that is contained in Paseban. This interprets the relationship between the world above and below between the ancestors and humans. It is believed that heaven and the earth in the context of the macrocosm and microcosm move in harmony to give birth to a harmonious pattern of space.

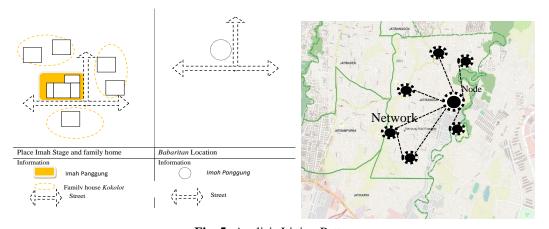


**Fig. 4:** Imah's Sketch of the Stage and Paseban Room Source: Research Documentation, 2022

As has been stated above, Kokolot as a self-image of the Sundanese people uses the Paseban space in customary behavior to shape spatial behavior in the village at the messo scale and at the macro. Kampung Kranggan is present as the antithesis of individualistic and exploitative urban human behavior in heterogeneous urban spaces. With the pattern of living in groups and spreading between clans evenly in the Jatirangga Village, they form a network of residential nodes. This network is the main force in the spatial pattern formed in the Kranggan Village. As illustrated in Fig 5, the Kasepuhan area of Sepuh Agung is used as the cultural center of the Kranggan Traditional Village. The same pattern of space is also found in other Kokolot, except that at the peak of the traditional ritual, it is held centrally at the Imah Panggung Sepuh Agung.



The Grand Elder Clan Stage Imah Area



**Fig. 5:** Analisis Living Pattern Source: Author, 2022

As described above, space products in the form of networks and nodes are based on their main strength, namely ancestral heritage, where the activity that connects the nodes is a ritual of salvation or Babaritan. Each Kokolot family in Imah Panggung will take turns performing traditional ceremonies. Other Kokolot families will visit, and *vice versa*. One of them is a ritual in the 11<sup>th</sup> (eleventh) month of Hapit according to the Kranggan Village calendar. Every Friday, the Kokolots take turns to give alms to the earth at their respective stage priests. The Kokolot joins in the procession. The location of the implanted offerings is between the Paseban and the road which is the ritual space. Therefore, the vernacular stage Imah is a traditional building with its construction based on hereditary traditions using local materials

and building traditions based on Kopak calculations. The traditional village Kranggan indeed is a vernacular settlement that is formed, collided, and reshaped, and maintained from generation to generation based on the heritage of ancestral teachings maintained by Kokolot as a guide to give their life in serving the community.

In Table 1, carried out from the unit of observation, and the unit of information, the activities of Kokolot and indigenous people gave birth to spatial themes which can be concluded as the legacy of ancestral traditions that persist and form novelty calling vernacular from Sundanese villages in rural areas. Kerbau Bule (white Buffalo) ceremony that was held once in eight years, has the value of spatial behavior where the ritual procession is carried out along the road (observation unit) that crosses modern housing and city facilities. This tradition binds indigenous peoples in activities so that it becomes a value that is maintained from generation to generation.

**Table: 1** Analysis of the spatial patterns and activities of Kampung Kranggan Source: Autrhor

<b>Observation Unit</b>	Information & Activity Unit	Space Theme	Description
Zona 1	Grave Pilgrimage.	The Elders' Grave	As a form of respect and praying for ancestral spirits.
Zona 3	Storing devices and food.	Imah Panggung	Using <i>Imah Panggung</i> as a center for activities and receiving donations from community members.
Zona 2 & 3	Puppet and shadow puppet show.	Front of Paseban	The puppet stage is installed in front of the <i>Paseban</i> .
Zona 2 & 3	Receiving guests.	In the Paseban which is the front of the <i>Imah</i> Panggung	Paseban is used to receive guests and visitors.
Zona 1, 2 & 3	Gegendeh	Front of Paseban	The women hit the mortar with a pestle (machine tool) as a sign for the main event.
Zona 1, 2 & 3	Preparing and parading the Head of the Bule Buffalo.	Preparation in front of Paseban and parading around the village	The buffalo is slaughtered before and the meat is cooked. The head, skin, and innards are wrapped in a white cloth.
Zona 1, 2 & 3	Praying and enjoying the food.	Village boundary	Installed tents and mats to sit together.
Zona 1, 2 & 3	Planting the Buffalo's Head.	Village boundary	Performed by the elders after prayers.
Zona 1, 2 & 3	Installing Ancak.	In the garden close to the Buffalo head planting site	Performed by young residents after the elders' prayers.

Paseban from the functional aspect becomes the core space for Kokolot to carry out the pre-ritual until the end of the ritual in one ritual procession. The aspect of Babaritan ritual itself is the main ritual in the Kranggan Village, and it is held every eight years based on the Kopak calendar. In addition, the Babaritan is carried out in certain months which are believed by the Kranggan people to be the month or day that needs to be saved. In the calendar, there are eight years consisting of twelve months in a year: namely, the months of Sura, Sapar, Mulud, Srimulud, Jumadil Awal, Jumadil Akhir, Rajab, Roah, Fasting, Sawal, Hapit, and Hajj. Babaritan tradition itself is a cultural activity that harmonizes the relationship between humans, ancestors, and the universe.







Pilgrimage Tradition in Karanggan Tua Alet's Well as a sacred place

Kopak: Kampung Kranggan Special



Imah Stage Kampung Karanggan Tua



Imah Stage Kampung Kranggan



Babaritan Ritual

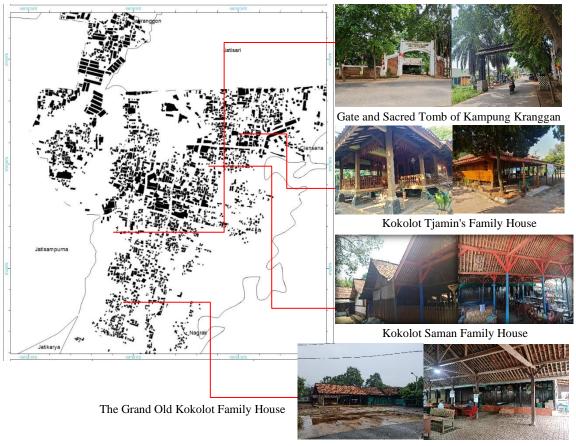
Fig. 6: Kranggan Village Spaces and Activities Source: Research Documentation 2021

The vernacular village was formed when moving from Gunung Putri carrying traditions and ancestral heritage (Fig 6), It has been formed as a new village over a longtime. According to the official sources of the Bekasi City government, the dominant ethnic groups in Bekasi City are Sundanese, Betawi, Javanese, and Bantenese. This assimilation certainly has an impact on the spatial patterns and behavior in the Kampung Kranggan.

In the development phase of colonialism, in-depth interviews were carried out. The information is the same, that traditional houses are used in important meetings and gathering places for soldiers. Their function is as a place for gathering and deliberation until now, but currently, it is more of a cooperation activity for the Babaritan ritual tradition. Traditional ceremonies are consistently held as a form of binding the village in activities and customs and cultural preservation.

With the current condition of increasingly massive urbanization, the main value that is firmly held by the Kokolots is the teachings of their ancestors that have been preserved from generation to generation. Knowledge and actions of traditional rituals in the home and settlement environment form a pattern of spatial relations able to maintain the existence of the Kranggan Village community. The formation of a new pattern in the Kranggan village now shows the existence of ancestral teachings with spatial awareness and intelligence by the Kokolot by tying clans in living knots in urban spaces. It has become the key to the spatial network that fortifies this vernacular settlement from the massive influence of modernity in Bekasi City. (Fig 7).

According to the analysis of the unit of observation, and in-depth interviews with resource persons including the Kokolot, government, and indigenous peoples, the basis of this settlement is the tradition of building houses that blend with the surrounding environment and use local materials, namely jackfruit wood, bamboo, and tile roofs. In the early days, the settlement pattern in the Kranggan village spread evenly in Jatirangga, Jatisampurna, and Jatrianggon as a unit of the Kranggan village area with a livelihood base as farmers.



**Fig. 7:** Vernacular Settlement Patterns in Cities Source: Analysis Results 2022

Philosophically, according to the place (placement) in Sundanese cosmology, the first Kokolot to set foot in the Bekasi area saves the springs from Sumur Alet and Sumur Binong. This shows that the ancestral values of the Lemah Cai which are usually mountainous characteristics were carried by the Kranggan indigenous people.

Then the annual pilgrimage procession which has become a tradition in the Kranggan village shows that the conceptions of Karanggan Tua and Kampung Kranggan are placed as hierarchical Luhur Handap up and down in the Sundanese cosmology. Meanwhile, the cosmological conception of the container and eusi Kampung Kranggan is a container whose contents are Kokolots that preserve the ancestral teachings and values. Kokolot as Urang Sunda's self-image is the content (eusi) of the Kranggan village. While the network formed from the ritual route can be understood as a cosmology of glass, in the context of the Kranggan village, the concept of glass is imaginary as a sacred space because it is in an urban environment.

## **Conclusions**

This research on the Kranggan Traditional Village as a vernacular village in urban areas found that the architecture of the traditional house of Kampung Kranggan or Imah Panggung is closely related to the traditions of the community that have been passed down by their ancestors from generation to generation. Paseban as a core element of Imah Panggung architecture has a close relationship with the traditional rituals. The Kokolot activities in Imah Pangung and the Kampung environment which are the Babaritan route have an adhesive value between the Kokolots and the indigenous people. The character of the space resulting from the activities of the Kokolots becomes a common space in maintaining the traditions of the ancestral heritage.

The Indigenous People of Kampung Kranggan adapt to the modern urban environment by maintaining the locality philosophy that has been preserved from generation to generation. The conceptions of Luhur Handap, Eusi Container, Lemah Cai, and Kaca-Glass became the basis for the Kokolot in maintaining the village. Since the initial formation, knowledge of the procedures for building houses, and the order of social life has been well maintained by Kokolot as the inheritor of knowledge from his ancestors, using local materials.

The knowledge base of Kokolot is a hereditary story and Kopak is a reference for the customary and environmental arrangements of Kranggan Village. Thus, even though in its development, Kampung Kranggan grew up in a heterogeneous urban environment, its traditions could still be maintained properly. This is very different from other Kampung Sunda which is isolated from urban space. With the reality of living in urban areas, the people of Kampung Adat Kranggan have a unique way of living, namely, the ritual route becomes the binding value (network) between the Kololot and the value of togetherness (gotong royong) becomes the node of every cultural activity.

Therefore, from the elements and conceptions mentioned above, it can be concluded that the Vernacular Settlement of the Kranggan Village is a new variant of the Sundanese traditional village that developed in urban areas that adapts to the surrounding environment. Kokolot's self-image as an inheritor of ancestral knowledge is to maintain human relations with the universe and God. Kokolot's self-image has become the main socio-cultural reference in the Kranggan Traditional Village. Thus the value of space contained in the Sundanese conception can adapt to new values in the urban environment in Bekasi City.

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