# Contradictions of physical development in Lasem vernacular settlements against the principle of heritage area preservation 

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#### Abstract

Lasem's vernacular settlements since the colonial period until today have been under various pressures from political aspects, physical urban development and economic interests. Changes in the orientation of the Lasem area due to physical modern development can be traced back to the construction of the postal highway during the colonial until Orde Baru period. The construction of this road cut down the front yard of vernacular houses in Lasem, which had an impact on changes in building facades. Shop houses grew along the highway as a result of the fulfillment of economic interests, this was also followed by changes in building functions and styles towards modern architectural styles. Environmental problems, aspects of political policy in the past and the downfall of the shipbuilding and batik industries also had an impact on the decline in the function of the Lasem area. Revitalization activities carried out in Lasem by structuring the built environment as an effort to control and increase the value of the area have been carried out in 2021-2022. The research objectives are to find the impact of physical development on Lasem vernacular settlements, the phenomenon and contradictions of physical development in heritage revitalization, and to find out the principles of preservation in the revitalization of cultural heritage. Resarch findings show that the physical development that is part of this revitalization is still oriented towards "beutification" and "disneyland" that is intended for tourists. The construction of street furniture in this area actually masks the existence and erodes the character of the buildings in the Lasem vernacular residential area. The demolition of ancient channels and the felling of trees as the green belt of the area, actually shows self-destruction and destructive new creations. This phenomenon contradicts the principles of preservation and revitalization in historic areas. Lasem with all its potential and historical heritage in terms of culture, architecture, landscape, and multicultural ethnicity in terms of its people has formed a distinctive character that distinguishes Lasem from other regions. The geographical unit of the ancient city Lasem has the status of cultural heritage, so all forms of physical development that have the potential to present spatial functions aimed at improving the quality of the area and its people must be committed to the principle of preserving cultural heritage.


Keywords: Development, Vernacular Settlement, Heritage, Preservation

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## 1. Introduction

Lasem is administratively a district city under Rembang Regency. Lasem is one of the areas in Indonesia that was part of the history of the Majapahit Kingdom until the VOC colonialization period. The position and function in the past made Lasem one of the strategic areas on the North Coast of Java that was visited by various foreign nations including the Arabs and Chinese. The presence of foreigners with their culture then settled, assimilated and acculturated until the formation of settlements.

Lasem, as a state of the Majapahit Kingdom in the $14^{\text {th }}$ century, acted as a gateway and was in charge of the north coast of Java. During the Demak Kingdom in the $15^{\text {th }}$ century, Lasem was transformed into a duchy, which grew rapidly into a city based on the shipbuilding industry. Islam developed during this period, starting from the court, as an implication of the interaction with Muslim traders in the port of Teluk Regol (Bonang Beach). Lasem, together with Demak, Tuban and Gresik during the Islamic era, became a separate axis of power bound by common goals, blood and religion as well as nodes of Islamic proselytization on the North Coast of Java (Unjiya, 2014).

The arrival of the ambassador Cheng Ho in the $15^{\text {th }}$ century brought a wave of people from China to settle in Lasem. These Chinese people initially traded and served as mercenaries, then over time they occupied new lands for agriculture in cooperation with the natives and built permanent houses along the river (Pratiwo, 1990).

Lasem became a geographically strategic area for migrants for trade activities. The existence of a river, which acts as a lifeline, is one of the factors driving the glory of the community, this river has a role in connecting inland areas with coastal areas. Lasem people are known to be experts in shipbuilding, these skills are combined with their expertise in trading which ultimately became the forerunner of the glory of the Lasem community (Nurhajarini \& Purwaningsih, 2015).

The history of Lasem's journey has produced a multicultural image with a mix of Javanese, Arab and Chinese communities within it. Javanese people in Lasem are mostly Muslims who are affiliated with Islamic boarding schools. These pesantren bring traditional customs that have elements of Arabic culture, such as haul and manakib events. The pesantren tradition of sarong and peci is an identical symbol that is inherent and a daily sight in Lasem. Lasem's ethnic Chinese population has been assimilating for centuries, blending in with the local community. The relationship between Javanese and Chinese in Lasem is also shown in the batik industry. The influence of Buddhism can also be seen in the nyadren, selametan and kenduri rituals that are still practiced by the Javanese community (Aziz, 2014).

Changes in urban space and building orientation in Lasem occurred when the Dutch absolutely controlled Lasem. The Dutch took control of Lasem in 1751 by transforming Lasem Regency into a district that was included in Rembang Regency, and controlling settlements based on ethnicity, and transforming the city square into a market and shops, as well as being part of the construction of a highway (Grote Post-Weg) that connected Anyer to Penarukan (Pratiwo, 1990).

Since the transfer of the center of power to Rembang City and Lasem was downgraded to the status of a Subdistrict City, the development of Lasem City has stagnated and even slowed down. Policies during the Dutch administration are the main factor that makes the development of Lasem today tend to stagnate. Lasem, which at that time had the status of a kawedanan or district, was not a development priority for the Dutch colonial government (Rahmah, 2017).

Environmental problems with the continued sedimentation of the Lasem river have had an impact on the demise of the shipyard industry (Radityawati et al, 2020). The glory of Lasem batik, which began to recede in the 1960s due to market competition that gave birth to stamped batik, as well as New Order politics that discriminated against ethnic Chinese, most of whom were batik entrepreneurs (Unjiya, 2014), this also had an influence on batikproducing houses where many experienced bankrupties, and many houses were damaged due to the abandonment of their owners (Mandaka and Mustika, 202).

The decline in Lasem's economic activity is considered insufficient to provide employment for young Chinese people. In addition, it was found that some Lasem residents believed that if they wanted to develop, they had to leave Lasem. Therefore, many Chinese people went to Surabaya, Semarang or Jakarta to find work. This causes the tendency of Chinatown and Chinese culture in Lasem to be abandoned by peranakan Chinese, the older generation being the majority remaining residents in Lasem Chinatown (Mahmudi \& Setiono, 2021).

The heritage of Chinese settlements and their architecture, which is full of historical value in the Lasem area, over time cannot be separated from problems ranging from damage to building facades due to road construction and abandonment by the owner, found buildings that have changed into modern architectural models. Some of the problems faced by Lasem today show signs of change that indicate degradation in settlement spaces and buildings influenced by policies and economic problems. The decline in settlement function can be seen from the condition of abandoned space utilization, with activities that tend to decrease in a certain time, and people who do not want to live in the area.

Doxiadis (1968) states that settlements refer to the definition of human settlement which is not just an aggregate ( collection) of houses and activities. Settlement is a space for life and livelihood for human groups, this places the need for human habitation in a habitat where it does not only involve humans as sole occupants. The main elements of a settlement (settlement system) are people, social groups, nature, facilities and connecting networks.

Vernacular settlements show a very close correlation between space and activities, so in exploring the values contained, it is done by revealing cultural behavior with environmental and building settings. Vernacular architecture such as buildings, settlements and villages result from the specific social characteristics of the community. Vernacular settlements consider the physical conditions surrounding them and other elements such as socio-cultural economics that influence their characteristics. A very strong aspect is the human need for a cultural environment (Oliver, 1987).

Efforts to revive the Lasem area, appear in the revitalization planning that has been proposed in 2017, in the form of building and environmental arrangements with the aim of controlling
space utilization and creating an orderly, sustainable, quality environment and adding to the economic vitality and life of the community are arranged. One of the manifestations of this activity is the development and arrangement of the Lasem historical area, including the city center, Chinese settlements and Javanese settlements in Lasem. This planning is located in six villages, namely Karangturi Village, Soditan Village, Babagan Village, Sumbergirang Village, Gedungmulyo Village and Dorokandang Village. This activity has been realized in 2021-2022 in the form of physical development in the Lasem Chinese vernacular residential area, namely in the Karangturi-Kauman Chinatown area. The results of this physical development are known to have received a lot of criticism because they are considered not in accordance with planning and have damaged several ancient artifacts that are part of Lasem's urban space.

Lasem as a historical area has experienced arrangements in terms of both forms of government and spatial planning based on the policies of leaders and rulers from various eras ranging from pre-colonial to post-colonial. Some physical impacts of development are known to have significantly changed the existing vernacular settlement order in Lasem. The changes in status experienced, environmental, socio-economic and cultural problems also have an impact on the decline of the Lasem area. The effort to revive the Lasem historical area is a good step, but in its current implementation, it still leaves evaluation notes because it is considered not in accordance with the DED, damaging several pieces of ancient channels in Karangturi Village which are included in the object of suspected cultural heritage and a process that is considered not in accordance with the legal basis of cultural heritage (Quoted from online news, jateng.genpi.co, and republika.co.id, January 27, 2022).

The dynamics experienced and the changes that occur in the Lasem city space where the physical environment and the people in vernacular settlements are part of the development, then this research is proposed with the research questions; (1) How is the history of development and its impact on Lasem vernacular settlements?; (2) How are the phenomena and contradictions of physical development in the implementation of the revitalization of the Lasem heritage area, and (3) How should the principles of preservation be applied in the process of revitalizing the heritage area?. Based on the above problems, the purpose of this research is to find the impact of physical development in Lasem vernacular settlements on cultural heritage values, character and identity of the area. This research is also a critical review of the implementation of physical development as a heritage area revitalization activity in Lasem, the results of this research are expected that the planning and implementation of revitalization in heritage areas with preservation principles can provide benefits to improve the quality of life of the community and maintain local cultural characteristics.

## 2. Theorizing Vernacular as a Settlement, Development and Revitalization

Culture as a complex of ideas and human thoughts is intangible. Culture will be realized through a worldview of lifestyle values and finally activities that are concrete. These activities will directly affect the container, which is the environment, including settlements (Rapoport, 1969).

Doxiadis (1968) in his theory divides settlements into two main elements, the first is space in the form of a physical container (the container) that accommodates activities consisting of
physical space and the natural environment; second, the content which includes people and communities and their social and cultural life, where both influence each other.

Settlements seem to be more clearly understood if the cultural character, views and values of the local community can be explored and found. Rappoport (1969) suggested three aspects that influence the space and form of the built environment, namely culture, physical environment and mechanism. Space and form are created by humans based on the culture of the community itself. Therefore, it can be said that culture gives birth to the built environment.

The built environment is the result of vernacular architecture (folk architecture) (Sugata, 2008). Hadinata et al (2018) suggest that cities in Indonesia started as an (organic) kampong that developed into a (formal) city. Kampung specifically refers to vernacular settlements that exhibit rural characteristics and traditional ways of life. These characteristics are important for community resilience and include high solidarity and strong social interaction (Octaviani \& Octaviani, 2021).

The old town or old city area in Indonesia has its own characteristics. The old town as a city can function as the center of the city with functions of trade, government, and a place where various groups gather, communicate and do activities. The old city always has its own position in the minds of city dwellers and becomes a historical node of the city where the identity of its residents has taken root. The old town is also a reminder of the colonial segregation of communities based on ethnicity, the impact of which continues to be felt today. It is this diversity of functions and values that makes the significance of the old town still felt. The old city acts as a historic site, as nostalgia, as architectural treasures, and as a reminder of the life that was and is attached to the old city (Mulyadi, 2018).

Urban redevelopment has become a vital component of the urban development process. This is done because cities tend to age and become physically and functionally obsolete. Urban redevelopment is targeted to eradicate slums and unhealthy living conditions, create a better view and image of urban areas, improve the economy in urban areas, create a comfortable and safe environment, increase future property values and restructure communities in poverty alleviation (Li et al., 2014).

The problems faced by the old city along with the age and development of the times are the emergence of irregular areas, areas whose economic productivity decreases, areas whose environment is degraded due to inadequate infrastructure services, even some urban cultural heritage (urban heritage) becomes damaged, and not a few areas whose location value decreases. This phenomenon is the background for the revitalization of the area including the revitalization of the old city.

Related to the old city which is also a heritage area, referring to the Undang-Undang Republik Indonesia Number 11 of 2010 concerning cultural heritage Revitalization has the meaning of a development activity aimed at regenerating the important values of cultural heritage with the adjustment of new spatial functions that do not conflict with the principles of preservation and cultural values of the community. Revitalization of potential cultural heritage sites or cultural heritage areas pays attention to spatial layout, layout, social
function, and/or original cultural landscape based on studies. Revitalization is carried out by reorganizing spatial functions, cultural values, and strengthening information about cultural heritage. Revitalization of cultural heritage must provide benefits to improve the quality of life of the community and maintain local cultural characteristics.

Peraturan Menteri Pekerjaan Umum RI Number: 18/PRT/M/2010 states that Revitalization is an effort to increase the value of land/area through redevelopment in an area that can improve the function of the previous area. revitalization of historic cities is the creation of preservation of urban cultural heritage assets by preventing self-destruction and destruction due to new creative-destruction creations, preserving the type and shape of the area, and encouraging the continuity and growth of local social and cultural traditions. Based on the above review, the revitalization of the old city which has various roles and functions, its own characteristics, historical heritage and memories, the development of historic areas with revitalization activities is required to prioritize the principle of preservation in the utilization and development of the cultural heritage it contains.

## 3. Methodology

This research uses a qualitative approach with a case study type with a single case in a vernacular settlement in the Lasem area. The purpose of qualitative research is to find an understanding of meaning, explore processes, describe experiences and build narratives (Creswell, 2003). Propositions were built as research grids and theoretical reviews were used as references for comparative analysis and discussion. The final review is presented descriptively, especially in the study of regional history and development in Lasem. The research results are a description of the phenomena and contradictions of physical development that occur in the Lasem heritage area.

Lasem is a historical area located in Rembang Regency, Central Java Province. The geographical unit of Lasem Ancient City has been designated as a cultural heritage based on Peraturan Bupati Rembang Number 432/2013/ 2020. Lasem historical area revitalization activities are contained in Rembang Regent Regulation Number 47 of 2019 in the form of the Lasem Heritage Area Layout Plan which is planned in six villages which are Lasem vernacular residential areas, namely in Soditan, Karangturi, Babagan, Sumbergirang, Babagan, Gedungmulyo and Dorokandang. The implementation of regional revitalization has now been realized with the arrangement and physical development of vernacular settlements in the Karangturi and Sumbergirang areas.

The data collection processes follow the qualitative research method, which is based on primary data obtained directly from the source. According to Groat and Wang (2013) and Creswell (2003), data collection techniques in architectural studies with a qualitative approach are carried out with structured interviews (in-depth interviews), interactive and non- interactive observations, observations of artifacts and sites, and archival document studies.

Data collection was conducted through literature study, document and regulation study, historical archives, observation and interviews. The study of previous research and historigraphy of Lasem was conducted to examine the history of Lasem. Data collection
related to revitalization planning, cultural heritage and Lasem industry was carried out by studying the Lasem heritage area layout plan document, the academic paper recommending the submission of cultural heritage in Lasem, as well as master plans from related agencies related to tourism, industry and cultural heritage in Lasem. Regulatory studies were also conducted, especially in relation to data collection related to the principles of revitalization, cultural heritage and preservation of historic areas. Interviews were conducted by deptinterview with respondents selected by purpose sampling with the general characteristics of teenagers and adults from Chinese, Javanese and who have lived in Lasem for at least 20-30 years, santri who attended school in Lasem for at least 5 years, and visitors to the revitalized area.

## 4. Result and Discussion

Lasem is part of the history and tradition of the government that surrounded it, from preIslamic, Islamic to colonial times. Several spatial arrangements of Lasem city have occurred in line with the policies of its rulers. Lasem was recorded in the Singosari charter as part of Majapahit rule in 1351. The center of Lasem's government during the Majapahit era is described in historical records as being located in the south of the city, in the form of a palace that faces the sea gracefully, comfortably, neatly and beautifully. The location of Kriyan Palace is estimated to be south of Jalan Raya Lasem in the Sumbergirang area. The Lasem region under Duhitendu Dewi's leadership encompassed the North Coast of Java south of the Java Sea and extended east along the Bengawan Solo River to its mouth at Sedayu Gresik.

With the collapse of Majapahit power in the $15^{\text {th }}$ century, and the rise of the Demak Kingdom, the status of the Lasem kingdom was abolished and separated from Majapahit control. The abolition of the Lasem Kingdom then gave birth to the Kadipaten of Lasem in Bonang Binangun, located in Regol Bay in 1469. The relocation of Lasem's center of government occurred due to the swift flow of change and support from Muslim traders. The flow of change that occurred could not be separated from the role of Cheng Ho's entourage to Java in the $15^{\text {th }}$ century which influenced the waves of migration of people from China, Gujarat and Arabia to come to Java. During the reign of Nyai Ageng Maloka, Lasem Palace was moved to the Cololagen area, (Cologowok-Soditan) located opposite the old palace. Meanwhile, the duchy palace in Bonang Binangun was entrusted to her younger brother, Sunan Bonang for the purpose of Islamic proselytizing education (Unjiya, 2014).

Pratiwo (1990) states that the Chinese first came to Lasem in the $13^{\text {th }}$ century, long before Admiral Cheng Ho and the Dutch arrived. The Chinese later formed colonies and settled around the river, with some entrepreneurs already working to manage the salt ponds on the Lasem coast. The port of Lasem since it was opened to Admiral Cheng Ho and his entourage in the $14^{\text {th }}$ century has seen an increase in Chinese migrants, most of whom were merchants, eventually mingling and settling down, permanently assimilating into Lasem. They married local women and then chose to settle down, building their settlements along the river. Settlements were formed on the east side of the river near the dock, these settlements were parallel and formed a path to the south, later this path was named Jalan Dasun. Subsequent settlement growth was oriented towards the river and Dasun Road. There is a hill in the east of the lasem area, where at the foot of the hill, the land is used for a cemetery, the river in front of the settlement as a representation of the red Phoenix Bird, the hill in the east as the

Black Turtle, the sea in the north as a white tiger and Thian Siang Sing Bo Temple in the south as a blue dragon.


Figure 1: Aspects of Cosmology in the formation of the Lasem Chinese settlement
Source: Pratiwo,1990

The arrival of ambassador Cheng Ho in the $15^{\text {th }}$ century brought a wave of people from China to settle in Lasem. These Chinese people came from Fukien, Kwangtung, parts of Kwangsi, Hunan and Kiangsi. At first they traded and worked as mercenaries, then over time they occupied new lands for agriculture in cooperation with the natives and built permanent houses. They called this new land wo-shen, the pronunciation of the word Lasem. This settlement is on Dasun Street (along the Babagan River), which is in the Soditan area. The existence of the Chinese people in this area was further complemented by the establishment of a temple. Along with its development, the Chinese population in Lasem expanded. This occurred significantly in the $18^{\text {th }}$ century as a result of the Chinatown Geger event which caused many Chinese communities in Jakarta to experience mass migration (Pratiwo, 1990).


Figure 2: Chinese Temple, Lasem, Central Java $\pm 1930$
Source: Indonesia National Archives

The formation of this settlement shows that the community in forming a new settlement environment in a place that is different from their original place, always follows the culture and belief system that they hold firmly in the old settlement environment. This can be seen from the community's efforts in modifying their new settlement environment. They still incorporate the old values that have been rooted and become beliefs since long ago in the new settlement environment, through the placement of its spatial elements (Sumintardja, 1981).

The duchy of Lasem has been under the control of the Islamic Mataram Kingdom since 1586. The city layout at this time was regulated in accordance with Mataram's policy of regulating the layout of the praja city, namely the duchy, the square, and the mosque in one integrated area in the city center. This was done during the reign of Adipati Tejakusuma by building a new duchy in Soditan, including the planting of twin banyan trees in the center of the square. A large mosque with Javanese architecture was built to the west of the town square. The construction of this mosque took place in 1588 (Kamzah, 1858; Unjiya 2014).

The change of leader of Mataram, Amangkurat I who replaced Sultan Agung in 1645, the attitude of Mataram was inclined and cooperated with the VOC, the Dutch. This situation received opposition and rebellion from within the palace, namely Raden Wingit Tejakusuma III and Raden Trunojoyo. Lasem became one of the centers of the militia formed by Raden

Trunojoyo and Raden Wingit. Battles between troops fighting the Dutch and Mataram and the VOC in Lasem took place from 1679 to 1680. After the war with the VOC in 1679-1680. The Duchy of Lasem was led by Raden Wicaksana with the title Tejakusuma IV who was appointed in 1683. Tejakusuma IV in his reign focused on post-war recovery, by fixing and developing the economic sector by increasing agricultural products, home industries, trade, education and culture in the city area. Indigenous people and ethnic Chinese people have been mixed and have been the residents of Lasem for generations. The area is organized according to the qualifications, conditions and skill tendencies of each village resident. Karangturi and Karanggan villages are used as centers for fabric, batik, embroidery, household goods and packaging industries. Sumbergirang village is used as a production center for blacksmithing, agricultural and household equipment. Ngemplak Village is the center of wood crafts and carpentry. Pohlandank village as a center for sugar and palm production. Ketandan village as a center for making musical instruments, namely gamelan and krucil. Demingan village as the center of dancing, gending, karawitan, beksan and waranggan arts. Semangu Banjar Mlati as the center of Javanese literature and Puri Kawak as the center of Islamic education and religion. This effort was aimed at fostering people's welfare in the economic sector and enlivening economic activities in Lasem harbor (Unjiya, 2014).

The Dutch had absolute success in occupying Lasem in 1743, and appointed a regent with the Regency office in Tulis village, Selopuro. The Lasem people's resentment of this was shown by attacking the regency, until in 1748, the Dutch moved the regency in Lasem to Rembang. The war between the people of Lasem and the Dutch continued until 1750. The resistance of the Lasem people ran aground at the beginning of 1751, and the Dutch at that time had absolute control of the Lasem area, then appointed a regent in the Lasem regency based at Binangun Beach. In 1751, the Dutch absolutely controlled Lasem and in that year, de jure and de facto, Lasem and Rembang became two separate administrative regions. Lasem district was abolished, then turned into a subdistrict that was included in Rembang Regency (Unjiya, 2014).

The Dutch occupied Lasem, built a military station at the mouth of the river at Dasun and controlled and regulated settlements based on ethnicity, namely Javanese and Chinese. The Chinese lived in the city area close to the infrastructure, while the indigenous (Javanese) population lived in the city village (Kauman) and around the city. The Dutch also moved the capital to Rembang and transformed the alun-alun as the central trading area into markets and shops. In the early $19^{\text {th }}$ century a new road was built connecting settlements east and west of the river. This road was part of the grote post-weg built by Daendels. After that the Chinese started to build houses along the road, around the native settlements. Before the widening of the road in the 1970s and 1991 the width of the highway was 10 meters, after the widening of the road to 20 meters, the trees on the roadside and the canopy of the houses were removed (Pratiwo, 1990).

The Japanese occupied Lasem in 1942 when Lasem was in a state of war and trading activities came to a halt, causing the wealthy Chinese to leave their homes. The Japanese expanded the shipyards and used them to manufacture ships for the Pacific War. The Japanese occupied the abandoned houses north of Dasun as a base. All ethnicities in Lasem sub-district
were placed under the Japanese Military Government. Japan was defeated by the Dutch and the Allies in November 1945 by destroying the shipyards and Japanese headquarters. After the recognition of the Republic of Indonesia in 1949, the subdistrict city government system was restored, and all ethnicities were placed under the administration of the camat (Pratiwo, 2010).

The results of the analysis of the history of the development of Lasem in the change of its leaders show that the displacement of the palace occurred from the $14^{\text {th }}$ century when Lasem was under Majapahit rule, the $15^{\text {th }}$ century during the heyday of the Demak Kingdom and the beginning of the growth of Islam, the $16^{\text {th }}$ century under the control of the Islamic Mataram until the $18^{\text {th }}$ century under colonial rule. The displacement of the center of government from the Majapahit-Demak-Islamic Mataran period shows a pattern of moving the location back closer to the initial position of the Lasem Palace, namely in the city center (Sumbergirang). The beginning of the growth of Islam in Lasem came from the coastal area, where this area was also the center of education and preaching of Islam. The coastal area and river estuary also became the location used as the center of government and the Dutch headquarters in Lasem, which was later continued as a headquarters by the Japanese in the 20th century. This coastal area is an important area in Lasem given its position as a gateway for foreigners to enter, as well as trade activities and the shipbuilding industry in Lasem. This explanation is contained in figure 1.


Figure1: The Movement of Lasem Government Center from Majapahit to Colonial Period.
Source: Author

An exploration of the history of Lasem city development from the Majapahit to colonial periods shows that the beginning of the Lasem government center and people's settlements during the Majapahit Kingdom was on the east side of the Babagan river. The center of government during the Demak Kingdom moved to the coastal area, in Bonang Binangun, which was the base area for Muslim traders. The beginning of the growth and spread of Islam in Lasem came from the Bonang Binangun area, which was marked by the construction of the Bonang Mosque. The next mosque construction in Lasem in the $15^{\text {th }}$ century was carried out in the Gedungmulyo area, when the Lasem Palace was moved to Soditan by Nyai Ageng Maloka. Later, during the Islamic Mataram kingdom, the Lasem Great Mosque was built in the same area as the palace and the square. Since the Majapahit period, the Caruban area has been the gateway and production of shipyards, as well as the Bonang area which became a port and trading activity. When the Dutch controlled Lasem, shipyard production was built in the dasun (river estuary) area on the east side of Caruban Beach. The shipyard and trade industry areas are located on the coast of Lasem, while the home industry center that was regulated by Tejakusuma IV in the $17^{\text {th }}$ century is located in the center of Lasem city.

The Chinese settlement in Lasem began with the construction of several permanent houses along the Babagan river and formed a dasun road in the $15^{\text {th }}$ century, from here it then developed to the south side, namely in the Soditan area. After the Dutch took control of Lasem, Chinese settlements developed further south, in the Karangturi and Babagan areas. During the implementation of the wijkenstelsel arrangement in the $19^{\text {th }}$ century, Chinese settlements developed west of the river in Gedungmulyo, then grew along the road along with the construction of the Grote Post-Weg. This Chinese settlement area is located in the city center. The Dutch wijkenstelsel policy has encouraged Javanese settlements in Lasem to develop on the outer side of the Chinese settlements, on the outskirts of the city and currently leading to the Lasem plateau area. This analysis is shown in figure 2.


Fig 2. The Development of Islam, Industrial Areas, Chinese and Javanese Settlements in Lasem
Source: Author

Government regulations during the Old Order prohibited foreigners (Chinese) from retailing in rural areas, including Lasem. Many Chinese moved their businesses to the big cities. The main market was closed and returned to the square, and only the surrounding shops survived. The widening of the Pantura Highway (Grote Post-Weg) also took place between 1970 and 1991, the construction of the road resulted in many old buildings being demolished, including dozens of Indis and Chinese-style houses that lost their function. During this period, the government also widened the Deandles Highway to 12 meters, changing the face of Lasem. A notable change in the city's identity was the transformation of the square into a market, which resulted in the banyan trees being cut down to make way for shops (Pratiwo, 2010).

The legacy of the colonial settlement structure that separated the indigenous community from the ethnic Chinese community was still visible until the Orde Lama period, although the wijkenstelsel system was no longer adopted. Gradually, Javanese settlements also began to develop southward around the Chinese area due to the destruction of economic facilities in the north of Lasem City. Some of the factors that caused the economic slowdown in Lasem City included the burning of the shipyards that supported the community's economy and the implementation of Government Regulation No. 10 of 1959, which prohibited Chinese people from trading in villages. The regulation caused the gradual economic collapse of Lasem City (Rahmah, 2017).

During the Orde Baru era, Presidential Instruction No. 14/ 1967 prohibited the expression of culture, traditions and beliefs in the public sphere for Chinese people, which influenced the socio-religious configuration in Lasem. (Aziz, 2014). The destruction of Lasem's buildings also stemmed from the cynicism of the 32-year New Order regime that continuously suppressed and attempted to eliminate Chinese culture, trinkets, ornaments, language and everything else. The regime's treatment led to feelings of pressure, fear and reluctance to defend Chinese architecture from its inhabitants, so that the sentiment of the rulers would not continue. On the other hand, the widening of the Semarang-Surabaya Main Road, which passes through Lasem's main thoroughfare, led to the loss of facades and parts of buildings in Lasem. As a result, many residents took the opportunity to remove the face of their buildings with modern buildings (Purwanto, 2018).

Octarina and Kurniawan (2021) revealed that the urban revolution with the developing colonial politics had an impact on the control of the social structure of society and the development of Chinatown in the city. The changes in urban space experienced by Lasem from a political aspect not only suppressed the formation of settlements but also the sociocultural aspects of the community. The development carried out to pursue economic growth, sacrificed important elements of the building as a shaper of the character of the Lasem area. Modernization and the demands of life from an economic aspect also have an impact on changes in the typology of buildings in Lasem. Changes in building facades to modern styles not only occur along the main road, but have also led to Chinese- Javanese vernacular settlements. The development of the Pantura road as a national road that is the lifeblood of the economy has also affected the condition of the buildings around the road. Many people change old buildings into modern buildings that function more as centers of economic activity such as minimarkets, shops and stalls. Some Chinese houses have also changed their function from residential houses to swallow nests and warehouses. The changes as an implication of economic demands have eroded the original architectural forms and parts of the building facades that show Lasem's Chinese architectural identity.


Figure 3: Shophouse buildings along Jalan Pantura and Jatirogo Lasem Source: Author


Figure 4: A modern-style building found among Lasem's vernacular settlements
Source: Author


Figure 5: (a) Chinese houses that have changed their function to become warehouses, changing the gate into a modern form that can be passed by vehicles, (b) Lasem Chinese houses that have changed their function to become swallow houses.
Source: Author

Although Lasem has undergone many changes, the existence of ancient buildings with Chinese architecture, both Chinese vernacular buildings and those that have acculturated with Javanese and Colonial architectural styles, still survive and can be found in the Soditan, Karangturi, Babagan, Sumbegirang and Gedungmulyo areas. There are 3 temples and 2 monasteries in this Chinese settlement area. Javanese settlements with coastal Javanese architectural roof shapes can be found in almost all areas of Lasem. This area can be accessed by small roads (alleys) to connect the villages. Javanese residences are located on the outer boundary of Chinese settlements, in this area there are many Islamic boarding schools, including some of the oldest Islamic boarding schools in Lasem, namely AI Hidayat Islamic boarding school and Kauman Islamic boarding school.


Figure 6 Vista of Lasem Vernacular Settlement Area Source: Author


Figure 7: The style of buildings located in six villages which are Lasem vernacular settlements Source: Author

The cultural heritage assets owned by Lasem provide its potential and uniqueness to be part of the heritage city in Indonesia. Various conditions and potentials owned by the central government pay attention to regional revitalization activities aimed at realizing lasem as a world heritage city. This program has been running with the status of a heritage city that has been held by lasem in 2015, and a revitalization plan that began in 2017, until the issuance of regional regulations related to environmental development plans in Peraturan Bupati Rembang Number 47 of 2019, and Peraturan Bupati Rembang Number 33 of 2022 concerning RTBL Lasem Heritage Area. This arrangement includes block delineation in six villages, namely Soditan Village, Karangturi Village, Babagan Village, Sumbergirang Village, Dorokandang Village and Gedungmulyo Village. The realization of physical development carried out in 2021-2022 includes the arrangement of the square area, the construction of the Lasem Market, the rehabilitation of the Jami Mosque and the arrangement of the Chinatown Area in Karangturi. The total area handled is $13,606.35 \mathrm{~m} 2$. Currently, the arrangement in Lasem City has been carried out in several locations including pedestrian arrangement along Jalan Raya Pantura (JI. Untung Suropati to Jl. Tuban-Semarang) and Jalan Jatirogo, revitalization of Lasem Market, Jami Mosque, square, and Jalan Karangturi IVPesantren Kauman.


Figure 8: Physical development in Karangturi and Sumbergirang areas. Source: Author

The square, mosque and market are part of the Lasem revitalization plan, the realization of which will take place in 2021-2022. The function of the square as a green open space and public space of the city is trying to be restored, which was previously part of the market and where traders built their stalls. After this revitalization planning in 2022, PKL traders also tried to use the square again as a medium for trading, they used motorbikes to sell their wares. But after the crackdown in 2023, the square is now sterilized from the PKs who are subsequently relocated to shophouses in the market area.


Figure 9: Existing condition around Alun-Alun, Market dan Grand Mosque (before and after) Source: Author

(a)

(b)

Figure 10: (a) The street vendors who previously traded in the square, (b)The condition of the square after the street vendors were relocated.

Source: Author

The Karangturi residential area, which was previously only passed by its residents, is now crowded and visited by people from other sub-districts, this phenomenon can be observed and felt as a result of development in the Karanturi IV-Kauman area. The Karangturi-Kauman area after development became part of the tourist area in Lasem. The visitors based on the results of the interview revealed that the purpose of going to this area is to take photos, hang out to enjoy music and culinary entertainment. This potential provides economic opportunities with the growth of trade stalls, stalls and cafes. Some Chinese residents took a role in capturing this economic opportunity by opening their houses to be rented out as stalls, as well as stalls for Javanese residents from Karangturi village to sell food and drinks at the front of the house (roadside). These street vendors emerged as part of the village's UMKM program by receiving capital assistance for carts as a medium for selling from the private sector. The existing area that functions as a residential area has now turned into a
destination for photographs. Entertainment activities in the form of music shows are also a new activity that emerged as an implication from development. This music stage is held on certain commemorative days or weekends, this activity takes place on the pedestrian to the road body. The performers in this activity are dominated by young people from the local community.


Figure 11: Transformation of space function in Karangturi IV-Kauman area after physical development
Source: Author

The culinary form with lesehan as part of the Javanese culinary style is part of this PKL activity. Mats as a medium for lesehan take up several pedestrian sections. The visitors of this culinary are dominated by young people and students. The students show enthusiasm and are happy with this development because they can eat not far from the pesantren where they study. Chinese residents also revealed that the change in the area that was quiet has now become crowded and they feel closer to shopping or culinary with the presence of street vendors in this area. The number of street vendors at the beginning who sold reached 120, but gradually decreased, and now only 10 traders remain. This phenomenon occurs because the number of visitors is decreasing and only local people around this area are still customers.


Figure 12: (a) Chinese houses that open leases to traders to sell, (b) culinary forms of lesehan and street vendor carts that utilize pedestrian space in Karangturi alley IV-Kauman.

## Source: Author

Lasem vernacular settlements are identical to the typical gate shape that is part of the building facade, this gate shape can be divided into two, namely the small gate shape and the large gate (gate house) (Dini et al. , 2022). This physical development has also had an impact on the historical landscape in Lasem vernacular settlements, where there has been the felling of several shady trees that function as green lanes, and the demolition of ancient channels that are part of the city's artifacts. Changes in the face of the area with the presence of street lights that are placed close together, do not pay attention to the existing and block the facades that characterize Chinese buildings in Lasem. This crowd also has an impact on congestion and the growth of illegal parking, where many visitors park their vehicles in the pedestrian area.


Existing condition in PesantrenKauman


After development


Figure 13: The loss of shade trees in the area of Pesantren Kauman, Lasem due to physical development.
Source: Author


Figure 14: The installation of lighting that is not considered so that it blocks the facade of the Lasem Chinese vernacular building which is the identity of the area.
Source: Author


Figure 15: The growth of illegal parking with parking on pedestrians. Source: Author

This phenomenon is reminiscent of the evaluation record experienced by the revitalization of the old city of Semarang which experienced "beautification" with the construction of lights, road borders, telephone boxes and fountains which actually made the surrounding historic buildings appear less prominent in order to present a "Disneyland" for tourists (Arnee, 2019).

The architectural uniqueness of Lasem city is shaped by Chinese, Javanese, Demak, Islamic Mataram and Indis architectures that appear as a whole or incarnate in architectural assimilation and acculturation. Based on the Peraturan Bupati Rembang Number 432/2013/2020 concerning the determination of the geographical unit of Lasem Ancient City which holds 227 ancient buildings designated as cultural heritage, further Peraturan Bupati Rembang Number 432/1826/2021 concerning 35 buildings that have been designated as cultural heritage. These buildings are spread across 6 (six) villages which are Chinese and Javanese vernacular settlements, namely Soditan, Karangturi, Babagan, Sumbergirang, Gedungmulyo and Dorokandang. The richness and uniqueness of these ancient buildings must be preserved by applying the principles of preserving cultural heritage buildings by utilizing and developing them through sustainable research, revitalization and adaptation.

Lasem vernacular settlements are hundreds of years old and have original, distinctive urban architecture, as artifacts, spaces and forms inhabited by humans and still survive today. This settlement certainly has meaning and value for its inhabitants. The existence of buildings in this settlement, as evidence of its survival, displays the acculturation and cultural assimilation of its inhabitants and keeps the memory of Lasem's past glory. The development in the city
center and the arrangement of the Karangturi Chinatown area with the physical development that has been carried out, shows a new phenomenon of tourism and recreation for economic purposes. However, on the other hand, this physical development has also eroded the identity and character of the area, which can also lead to the loss of collective memory of residents.


Figure 16: Position of the building covered by park lights and street food stalls Source: Author

The strong social relationship between the Javanese and Chinese of Lasem has long been entrenched. When the Duchy of Lasem was under the Islamic Mataram kingdom, King Pakubuwono II appointed a Chinese descendant named Oei Ing Kat, who was a Muslim, as the Duke of Lasem with the title Tumenggung Widyaningrat. During the Angke incident in 1740, Oei Ing Kat accommodated the Chinese who had fled Batavia and allowed them to build new settlements on the riverbank in the Karangturi, Pereng and Soditan areas. Oei Ing Kat became part of the joint Dampoawang Lasem militia, along with Tan Ke Wie and Raden Panji Margono, who united against the VOC's control of the Duchy of Lasem in the $18^{\text {th }}$ century (Unjiya, 2014).


Figure17: Memorial monument commemorating the resistance of Raden Panji Margono, Oie Ing Kat and Tan Ke Wie in front of the Cu An Kiong Temple, in Soditan, Lasem. Source: Author

The Chinese also have a role in building socio-cultural relations with the natives related to Batik making. The use of batik motifs derived from typical Chinese forms was able to be inscribed and became a characteristic of Lasem batik. The growth of batik houses as an industry opened up employment opportunities for the local population, especially Lasem women. The houses with high and sturdy walls with Chinese architecture that line up become the identity that distinguishes Lasem Chinatown from other villages. Batik production activities with labor from local residents are commonly found in Lasem Chinatown. Markets, batik houses and shops in Lasem become a place for the interaction of the Lasem community and the growth of social relations between them.


Figure 18: Batik production activities at the Batik House in Lasem Source: Author

The joint use of space by santri and Chinese residents is also reflected in several areas in Lasem. As in Karangturi, which is Lasem's Chinatown area, adjacent to the Kauman Islamic Boarding School, which is one of the oldest Islamic boarding schools in Lasem. This area is one of the spaces for interaction between Chinese residents and students. Along with the growth of Islamic boarding schools in Lasem City, spaces for santri activities increasingly color the Lasem area such as in the Karangturi, Soditan and Sumbergirang areas. Lasem Chinese who choose to live in Lasem because they are personally attached to Lasem, maintaining their ancestral heritage, continue to survive by running businesses in batik, wood industry, processed food, restaurants, homestays and cafes.

Traditional modes of transportation such as delmans and becak that take passengers from their homes to the market or city center, as well as women batik makers who work by pedaling their bicycles to batik houses in Lasem's Chinatown are scenes and activities that fill the streets of Lasem. In the development of Lasem city as a city with a cultured community character, 'ngopi' has also become a culture for the Lasem community, coffee shops in Lasem grow between settlement areas with customers dominated by men from the local community and santri.

The landscape described above is part of the urban space and what distinguishes Lasem from other areas. Such views are stored in the memory of respondents who have visited Lasem where they spent their childhood/youth living in Lasem. This phenomenon is like what Lefebvre (1991) revealed that a space is born through mental representations and personal experiences of each entity as its inhabitants. Over time, the inhabited space also hoards the memories that occur in it, so there is no doubt that the representation space has a monumental nature.


Figure19: A view of the daily activities of the people of Lasem that are visible in the settlement Source: Author

Development activities in Indonesia's old town areas are still being evaluated for their tendency to be oriented towards physical development for mass tourism activities and regional economic growth. Physical development in Lasem vernacular settlements also shows the same thing, this physical development has certainly encouraged local economic activities, but what happens shows the 'shock phenomenon' of enthusiasm at the beginning, but at the end it decreases, and is not sustainable. The positive impact of physical development is recognized by the presence of life marked by the crowds of local tourists taking pictures, hanging out, watching performances and culinary delights, but this euphoria is only momentary.

The socio-cultural problem that occurs in Lasem Chinese vernacular settlements is the disconnection of cultural inheritance to the younger generation who move to study/work in big cities, due to the unavailability of higher-level education and diverse employment opportunities in terms of expertise. If we look back at the glorious history of Lasem, which appeared as a city area and industrial center for various crafts and natural products, then efforts to improve the people's economy can be explored through this potential. Data from the Department of Industry and Trade of Rembang in the Industrial Development Plan of Rembang Regency (RPIK) Year 2022-2042 states that Lasem is a district that has superior industrial products, namely the processed fish industry, agricultural industry, batik and apparel industry, roof tile and brick industry, and furniture industry. Based on this data, it can be seen that the natural products and industrial forms that became Lasem's historical heritage in its heyday are now still able to survive and become superior products.

Indeed, the city is not just a display of the physical environment and people in the present, but also a source of memories of the past and an arena for fantasizing about the future. So it is very clear that cities should not be understood as merely physical, but rather emphasized on the social interaction between various elements occurring within the city. The various demands of urban development today are increasingly diverse, so a strategy is needed to build and develop a city while building its identity. Not just physical development at the regional level, but creating conditions where there is harmony with each element and existing elements.

The loss of a historic residential neighborhood means the disappearance of a part of the history of a place that has actually created an important asset for the area concerned in the form of a built environment identity that provides its own identity. It is feared that one day future generations will no longer be able to see and know the history of an area reflected in its built environment. Lynch (1962) revealed that the absence of identity and the ease of the environment to be recognized will lead to a reduction in the quality of the urban environment. A good quality urban environment can be indicated by urban elements that form character and have identifiable characteristics.

Planners, developers and city governments should pay attention to the most important thing in physical development in historic areas by utilizing local potential, architectural wealth, climate and local culture as the basis for planning and designing an area with identity, not the other way around where physical development often contradicts local culture, original architecture and regional identity. The mandate for revitalization of historic areas aimed at increasing the value of the area must be implemented with due regard to the original spatial, layout, social function, and/or cultural landscape. Physical development works mainly to strengthen the physical characteristics of urban spaces that cannot be separated from local historical, social and cultural values.

## 5. Conclusion

The policies and implementation of development carried out during the colonial and postcolonial periods have had an impact on changes that erode building architecture and suppress the existence of vernacular settlements in Lasem. Some discriminatory policies in the past have also had an impact on economic, social and cultural life, especially for the Chinese community. Lasem in the midst of the development of the times and the dynamics faced, tried to revive and received attention from the government with revitalization activities. The physical development that is part of the revitalization of this area, still shows the phenomenon of "beautification" and makes the ancient buildings in the area covered by the presence of more prominent lights, and the attributes of street vendors, thus covering the building facade elements that characterize Lasem vernacular settlements. This contradicts the principles of historic area preservation, in terms of the utilization of cultural heritage assets that should pay attention to the original spatial, layout, social function and/or cultural landscape. The demolition of ancient channels for the installation of U-Ditch and the felling of several trees that function as green space elements show the occurrence of selfdestruction and creative-destruction, which should be prevented to create preservation of cultural heritage assets and urban landscapes.

The arrangement of this residential area which then has an impact on changing the function of space into a tourist destination, this is recognized as encouraging local economic activities and social relations. However, on the other hand, the drastic decline in the number of economic actors due to the decreasing number of markets shows that the benefits provided are temporary and unsustainable. The social and cultural relations of the Lasem community have been reflected since the past until now, the community can now coexist in the same region. The presence of santri in Lasem city also contributes to economic, social and cultural activities in Lasem. Urban spaces such as markets, shops, batik houses, stalls and settlements are spaces for social and cultural interaction that have long filled the urban space in Lasem.

The geographical unit of the ancient city of Lasem has already held the status of cultural heritage, so it is necessary for the planning and implementation of revitalization to refer to and apply the principles of preservation of cultural heritage areas aimed at regenerating important cultural heritage values by adjusting new spatial functions that do not conflict with the principles of preservation and cultural values of the community. Revitalization is planned and implemented taking into account the spatial layout, layout, social function, and/ or original cultural landscape based on studies, with the strengthening of cultural heritage information. The purpose of revitalization is expected to be able to provide benefits to improve the quality of life of the community in harmony with the character of local cultural characteristics.

## References

- Creswell, J. W. ( 2003) . Research Design: Qualitative, Quantitative, and Mixed Methods Approach. Sage Production.
- Arnee, Nonie. (2019). Revitalisasi Kota Tua Semarang, Antara Peles tarian Bangunan Bersejarah dan Menghadirkan 'Disneyland' Demi Pelancong. Bbc News Indonesia. Accseed on October 28, 2023, from https://www. bbc. com/indonesia/indonesia50724172
- Dini, S.F., Wibowo, E.P., Iqbal, M., Bahar, Y.N. and Alfiandy, A. (2023). Applying Deep Learning and Convolutional Neural Network System to Identity Historic Buildings: The "Little China" Building in Central Java, Indonesia in ISVS e-journal, Vol. 10(2), 190.
- Doxiadis, C.A. (1968). Ekistics: An Introduction to the Science of Human Settlements. London Hutchinson.
- Groat, L. \& Wang, D. (2002). "Architectural Research Methods" . New York: John Wiley \& Sons. Inc.
- Koentjaraningrat, K. (1985). Mentalitas dan pembangunan. Jakarta: Gramedia.
- Li, L.H., Lin, J., Li, X. and Wu, F. (2014). Redevelopment of urban village in China-A step towards an effective urban policy? A case study of Liede village in Guangzhou. Habitat International, 43, pp.299-308.
- Lynch, Kevin. (1960). "The Image of the City Kevin Lynch." Social Problems 8(3): 280-81.
- Mandaka, M., Ikaputra, I. \& Widyastuti, D.T. (2022). Tipologi dan Morfologi Kota Bersejarah Lasem. Jurnal Arsitektur Pendapa, 5(1),58-75.
- Mahmudi, Mukh I. A. Lugina S. S, \& Setiono. (2021). "Diskontinuitas Budaya: Tersebarnya Peranakan Tionghoa Dari Pecinan 'Tiongkok Kecil' Lasem." Journal Sosiologi Nusantara 7(1): 37-50.
- Mulyadi, M. B. (2018). Menghidupkan KotaTua. Kolase Pemikiran Ekonomi Kreatif Nasional, p. 81.
- Nurhajarini, D.R. and Purwaningsih, E., (2015). Akulturasi lintas zaman di lasem: perspektif sejarah dan budaya (kurun niaga-sekarang). Fibiona.
- Oktarina, F.and Kurniawan, K.R., (2021).The History of Jakarta's Chinatown: The Role of the City Gate as a Transition Area and a Starting Point in the Spatial Transformation from the First Chinatown to the Renewal Phase| Sejarah Pecinan Jakarta: Peran

Pintu Gerbang Kota Sebagai Area Transisi dan Titik Awal dalam Transformasi Spasial Pecinan Pertama ke Fase Pembaharuan. SPAFA Journal, 5.

- Oliver, Paul. (1987). Dwelling The Hous Across The World,UK: Phaidon Press Limited, Oxford
- Pemerintah Republik Indonesia. (2010). Peraturan Menteri Pekerjaan Umum Nomor: 18/PRT/ M/ 2010 Tentang Pedoman Revitalisasi Kawasan. Kementerian Pekerjaan Umum Negara Republik Indonesia.
- Pemerintah Republik Indonesia. (2013). Pedoman Revitalisasi Cagar Budaya. Direktorat Pelestarian Cagar Budaya dan Permuseuman. Kementerian Pendidikan dan Kebudayaan Direktorat Jenderal Kebudayaan. Jakarta. 3 hal. https://repositori .kemdikbud.go.id/23158 /1/pedoman\%20revitalisasi.pdf
- Pemerintah Republik Indonesia. (2010). Undang-Undang N0 11 Tahun 2010 Tentang Cagar Budaya. Lembaran Negara Republik Indonesia Tahun 2010 Nomor 130. Jakarta
- Pratiwo. (1990). The Architecture of Lasem: Typo-Morphological Approach For Redefining Chinese Architecture In Lasem, Katholieke Uniersiteit Leuven
- Pratiwo. (2010). Arsitektur Tradisional Tionghoa dan Perkembangan Kota. Yogya karta.Ombak
- Radityawati, Retna Dyah, Endang Susilowati, and Singgih Tri Sulisti yono. (2020). "Changes in Spatial Planning and the Destruction of City Identity: Lasem Case during 1970-1991." Indonesian Historical Studies (IHiS 4(1).
- Rahmah, N. (2017). Transformasi spasial kota Lasem: 1925-2015 (Doctoral dissertation, Universitas Gadjah Mada).
- Rapoport, Amos. (1969). House, Form and Culture. New Jersey: Prentice-Hall, Inc. Englewood Cliff.
- Sugata, F., The "Hakka" Consistency In Architecture Transformation Of Culture Case Study: Kampung Gedong In Bangka. Ambiance, 2(1), p. 217722.
- Sumintardja, D.(1981). Kompedium Sejarah Arsitektur. Bandung: Yayasan Lembaga Penyelidikan Masalah Bangunan.
- Unjiya, M.Akrom.(2014). Lasem Negeri Dampoawang. Yogyakarta. Salma Idea

