THE SOCIO-SPATIAL IMPACT OF MOROKREMBANGAN NAVAL AIR BASE IN COLONIAL SURABAYA, 1920s-1940s

DAMPAK SOSIAL DAN SPASIAL PANGKALAN UDARA ANGKATAN LAUT MOROKREMBANGAN DI SURABAYA ERA KOLONIAL, 1920-an-1940-an

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ABSTRAK

Penelitian sejarah ini menyelidiki dampak sosial dan spasial yang sering terabaikan dari studi terkait pangkalan udara, termasuk pangkalan udara angkatan laut Morokrembangan di Surabaya selama tahun-tahun awal berdirinya dari dekade 1920-an hingga 1940-an. Dengan mengintegrasikan pendekatan sejarah angkatan laut, sejarah sosial, dan sejarah spasial melalui interpretasi atas sumber-sumber primer dan sekunder, terutama arsip dan artikel surat kabar sezaman. Penelitian ini menyoroti efek yang ditimbulkan pangkalan tersebut kepada kehidupan dan ruang hidup masyarakat di sekitarnya. Studi ini mengungkapkan bahwa Morokrembangan secara signifikan berkontribusi dalam mengonstruksi persepsi atas kekosongan wilayah dengan memberlakukan eksklusivitas pada penggunaan lahan dan perairan di sekitarnya. Di darat, konsep penciptaan kekosongan ini menyebabkan aktivitas kriminal, sementara di perairan, hal ini membatasi aktivitas komunitas nelayan lokal yang telah tergusur selama pembangunan pangkalan. Kasus Morokrembangan menunjukkan bahwa konsep kekosongan yang dipersepsikan, dianggap ideal untuk pangkalan militer, adalah sebuah konstruksi yang didukung oleh superioritas politik dan kolonialisme.

Kata kunci: Morokrembangan, angkatan laut, pangkalan terbang, dampak sosial, dan dampak spasial.

ABSTRACT

This historical study investigates the often-overlooked socio-spatial impacts of the Morokrembangan naval air base in Surabaya during its early years from the 1920s to the 1940s. This study integrates three historical methods, including naval, social, and spatial historical approaches. It interprets primary and secondary sources, particularly archival

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documents, newspaper articles. It highlights the effects of the airbase on the social life and spatial conditions of the surrounding community. The findings reveal that Morokrembangan significantly constructed a sense of emptiness by enforcing exclusivity on the surrounding land and waters. On land, this invention of empty space led to criminal activities. Meanwhile, this restricted the activities of the local fishing community in the waters, as they were displaced during the construction of the airbase. The case of Morokrembangan illustrates that the concept of perceived emptiness, which was considered ideal for a military base, was a construct supported by political superiority and colonialism.

Keywords: *Morokrembangan, navy, airfield, social effects, and spatial effects.*

A. INTRODUCTION

Morokrembangan Naval Airbase was not the inaugural naval airbase in the former Netherlands East Indies or today's Indonesia. However, it stood as a monumental testament to cutting-edge military technology, seamlessly merging maritime and aerial power projection operated by the colonial presence of the Dutch Royal Navy, or Koninklijke Marine (Womack 2016:197). Situated strategically at the river mouth, locally known as moro, named Krembangan, it lies northeast of Surabaya, the vital port city in East Java (Dick 2003:174).

Situated initially on marshy terrain, the base's development began by reclaiming land using sand. Built since 1918 to accommodate naval aircraft, Morokrembangan Airbase necessitated access to bodies of water, leading to the claim on the shallow southern shores of the Madura Strait, serving as unconventional "runways" for these aircraft (Anonymous, 1928c).

The establishment of Morokrembangan Airbase was not without its challenges regarding its claim to the surrounding areas, both the land and the body of water. Despite aerial photographs suggesting a relative "emptiness" in the area, Morokrembangan was not built on unclaimed land (KITLV 1948). Prior to the ambitions of the Dutch Navy to create an airbase for projecting maritime aerial power across the archipelago, the region had long served as a vital space for local communities to meet their daily needs, particularly through fishing in the shallow waters.

Contrary to the Dutch Navy's belief, the land occupied by the base was not simply swampland. Newspaper articles reveal that people from nearby kampongs and even people from Madura Island from across the strait had settled there. The interaction (or friction) between the naval airbase and the surrounding society is often overlooked in conventional naval history. The narrative typically portrays such installations as occupying empty spaces, largely a rumor that fails to hold up under scrutiny. This study focuses on the interactions (or frictions?) between the naval airbase and the local community, both on water and land.

This study reconciles three seldom-explored domains: naval, social, and spatial history. Despite their disparate backgrounds, these disciplines intersect. The bridging effort involves

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examining the socio-environmental repercussions of operating a military, specifically, a naval (air)base, particularly scrutinizing how the presence of such a base influences the utilization of surrounding space and social life. However, rather than relying on visual data, this research prioritizes narrative historical sources, emphasizing the social aspects, often manifesting as petit histoire, which often touch upon "day-to-day" issues, such as crimes, discrimination, and inequality (Anwar 2004:1-3).

Picture 1. Aerial Photography produced by Dutch Naval Aviation Service suggesting its marshy characteristics. Source: KITLV 1948.

The disconnection between the three domains can be attributed to at least two factors. Firstly, it stems from their distinct origins, leading to differing motivations. Consequently, this contrast in motives influences their respective approaches. Naval history, defined as the general accounts of war at sea, relies mainly upon documents produced by members of the seaborne force, both those who sail or stay on land (Colville and Davey 2019:1-3; Dull 2004:vii-viii). Primary sources used to study naval history might be formal and often technical, issued by the branch or individual writings, including memoirs or travelogues. However, as the definition sheds light, the documents and information extracted mainly concern the course of the seaborne war, mainly concerning its strategy, organization, and weaponry. The same categorization applies to early twentieth-century colonial Indonesia. Naval history mainly depends upon documents and accounts produced by the Dutch Royal Navy's presence in the colony of the Netherlands East Indies or today's Indonesia (Noppen and Wright 2020:4; Geldhof and Burgerhout 1987:2-4).

The dependency on these documents significantly influences the narrative of naval history within historiography, including Indonesian historiography. Consequently, naval history tends to prioritize technological advancements and organizational structures while sometimes overlooking the possibility of affecting the socio-environmental surroundings (Colville and Davey 2019:1-3). Preexisting studies often provide straightforward chronologies of Indonesian naval units without even exploring the operational and strategic complexities, not to mention their broader societal implications. This pattern is evident not only in publications discussing the Koninklijke Marine's activities in colonial Indonesia, authored by individuals or the service, but also in the modern Indonesian Navy's (TNI-AL), as Koninklijke Marine's "successor" (Soebakti 1973:1;

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Cahyono, Suhardi, and Soeparno 1992:1-3; Purwono 2012:1).

In contrast, spatial history relies on entirely different sets and types of sources. It emerges from a desire to emphasize the "interaction" between humans and their environmental or ecological surroundings. Often viewed as a sub-category of environmental history, spatial history initially aims to deconstruct humanity's dominant and impose stance toward their space, including defining what is and is not natural (Lawson, Bavaj, and Struck 2021:1-2). One may see spatial history as the continuation of environmental history that inherently wants to grant agency to the "non-human" elements (Isenberg 2017:2-3).

In the Indonesian context, these intersections are infrequent, primarily owing to the underdeveloped state of environmental (not to mention spatial) history studies, let alone their convergence with the relatively overlooked naval history. Spatial and environmental history research in Indonesia typically focuses on biodiversity or responses to natural disasters, given the country's susceptibility to them. However, there remains a notable gap in the examination of human-made institutional impacts, particularly those stemming from corporate activities such as pollution and other related effects, which have not received sufficient attention (Boomgaard, Colombijn, and Henley 1997:1-3).

In highlighting the differences between both domains, one would go through the preexisting historiography, which was generally divided into the navy, in general, but with emphasis on the Indonesian and the Netherland East Indies' case wherever possible, and its societal, spatial, and socio-spatial implications.

Naval operations inherently influence societies both within and beyond coastal regions. Workforce-wise, the recruitment process for seaborne operations often separates navy service members from their societal and environmental roots, potentially necessitating adaptation to the marine environment and lifestyle, particularly during extended stays such as those in colonial settings. However, it was not just the maritime operations that separated society, both for the navy members and society in general, from their surroundings. The establishment of naval facilities, notably bases, inherently influences the appropriation of both water and land, often disrupting social and spatial dynamics. This perception often arises from the belief that space lacks a definitive owner, especially when traditional societies, lacking documented ownership, are considered the primary inhabitants (Gill 2016:2; Wilson 2017:2-3).

This perspective is readily countered by the fact that military bases, particularly those affiliated with the navy, do not occupy vacant spaces; rather, military bases actively generate a sense of emptiness (Austin and Bruch 2010:47-48). This dynamic stems from how military institutions inherently restrict access to unauthorized individuals, without necessarily destroying existing features. In certain instances, military installations have even played a role in "natural

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preservation," either directly or indirectly connected to their capacity for power projection (Pearson 2012:117).

In the realm of naval operations and bases, the necessity of both land and bodies of water becomes evident, highlighting the potential scope of their influence. Coastal regions and societies are particularly susceptible to the ramifications brought about by naval presence and bases. These impacts often manifest in the disruption of coastal communities' traditional activities such as fishing and transportation, as well as in their overall way of life. This study's chosen focus, Morokrembangan Naval Airbase, was established within the preexisting Morokrembangan fishing community, where the effects of naval operations on such communities were readily observable.

Studies on the Morokrembangan Naval Airbase understandably emphasize its military significance, particularly as the largest platform projecting maritime airpower across the vast Indonesian archipelago during the colonial era. Its pivotal role became especially pronounced during the conflict between Allied forces and the Japanese Imperial Navy around 1942, an event that led to the destruction and subsequent closure of the Morokrembangan Naval Airbase until its reopening in the late 1940s (Geldhof and Burgerhout 1987; Zahir 2023:107; Womack 2023:7,45).

Meanwhile, research on Morokrembangan's spatial history is relatively absent. However, recent surveys have begun to examine the area's environmental profile, particularly concerning the operation of its flood basin and its contribution to the ongoing flood issues in the city of Surabaya (Dick 2003:374). These investigations, notably conducted by non-historical researchers but still provide valuable insights into this aspect of Morokrembangan's environment (Fitrianingtyas and Slamet 2018:171; Karnaningroem and Paitaha 2021:1-2).

Building on the limited but important discussions connecting spatial, environmental, and naval history, particularly within the Indonesian context, this research asks: how did the establishment and operation of the Morokrembangan Naval Airbase shape local spatial configurations and social practices around Morokrembangan in colonial Surabaya?

To operationalize the stated approach, the present research adheres to the following framework: firstly, it explores the history of Morokrembangan as a region. Secondly, the concern shifts to Morokrembangan Naval Airbase. Thirdly, it explores the socio-spatial impacts, illustrated through the presentation of various narratives. Fourthly, it analyzes the broader societal implications of the base's presence in its surroundings. Finally, the article ends with a conclusion.

Furthermore, to develop a socio-spatial history that has often been overlooked, with a focus on the Morokrembangan naval base, this study adopts the methodological approach outlined in the following section.

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B. METHODS

This study aims to provide a comprehensive depiction of how the establishment and operation of a naval base simultaneously affected its surroundings. To achieve this, the present study adopts a historical method by accessing two sets of primary sources. Firstly, official documents, which in this case were documents issued by the Dutch colonial government in the then East Indies, were stored mainly in the collection of Arsip Nasional Republik Indonesia, Jakarta. Among other aspects, this research accessed archives produced by the port-construction section (haven werken) which belongs to the larger civil construction department (openbare werken). These documents primarily deal with information about the base's operation, data which is mainly valuable to understand Morokrembangan Naval Airbase's construction and main function as a military base.

This set of sources barely addresses societal and environmental conditions. If it does touch upon "society," it mainly focuses on the lives of naval service members within the base. However, it remains confined to their official duties, such as operational readiness and discipline. Obtaining day-to-day, "normal" life situations is nearly impossible from these sources. The second set of "story-based sources", which include newspapers and memoirs, fills this gap.

Morokrembangan Naval Airbase was not just home to amphibious aircraft; it also housed personnel and existed around the local community. Information about these individuals can sometimes be found in newspaper articles, particularly if it pertains to personnel changes, promotions, operational accidents, or other incidents. For local society, news mostly concerns information about criminal activities, conflicts, or disasters such as fire incidents. More detailed insights are also often available in memoirs written by former base members, either written individually or collectively.

This study aims to integrate both sets of sources. It primarily relies on the first set to understand Morokrembangan as a military facility, focusing on its operational and technical aspects. Furthermore, it also considers the socio-spatial dimension as revealed by the second set of sources.

To operationalize the study's focus, the present research adheres to the following framework: firstly, it explores the history of Morokrembangan as a region. Secondly, the concern shifts to Morokrembangan Naval Airbase. Thirdly, it explores the socio-spatial impacts, illustrated through the presentation of various narratives. Fourthly, it analyzes the broader societal implications of the base's presence in its surroundings. Finally, the article ends with a conclusion.

C. RESULT AND DISCUSSION

Before transforming into the site of the region's largest and most advanced naval airbase, Morokrembangan was primarily known as a fishing village nestled within marshy terrain. Its name, "Moro," derived from the local language for "mouth of the river," hinted at the area's wet landscape,

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influenced by a mix of salt and freshwater.

Located in the northeastern part of Surabaya, a crucial seaport in Java since pre-colonial times, Morokrembangan occupies a unique geographical position. Unlike coastal areas directly exposed to the Java Sea, Morokrembangan faces a narrow channel called the Madura Strait. A quick look at the map reveals that Morokrembangan's view of the sea is "obstructed" by the presence of Madura Island landmass to its northeast. Despite its narrow width, the Madura Strait served as a bustling thoroughfare, influencing the school of fish alluring to fishermen and later prompting the construction of a dedicated navigational channel, known as a vaargeul, by Morokrembangan Airbase (Anonymous 1926a).

This involved clearing land and excavating a canal, diverting the take-off and landing of amphibious planes away from the bustling Madura Strait. Permission to utilize this channel became a point of contention between the airbase and the local fishing communities residing in the area (Anonymous 1928c).

The murky nearby water, indicated a habitat teeming with mollusks that attracted fishing activities. A rather general and modern survey suggests the abundant presence of small pelagic fish, defined as a group of small, often schooling species that eat microscopic plants and animals drifting near the ocean surface (Masyhuri 1995:239; Jonge 2012:13,40).

This environmental context was confirmed by aerial photographs, illustrating the village's expansion northward from its southern origins, leaving the northern area predominantly swamp-covered compared to the southern region. The fishing communities in Morokrembangan adhered to traditional practices prevalent around the Madura Strait, utilizing jukung or mayang-style boats and various fishing gear, including traps and shore-based fishing huts made from bamboo. Their navigational and meteorological knowledge relied on natural cues such as monsoons and celestial observations (Masyhuri 1995:42; Jonge 2012:38). The latter resulted in the necessity of having minimal artificial lighting during fishing trips, posing challenges for Dutch Navy amphibious plane operations.

Picture 2. Morokrembangan layout as cropped from a larger map of Surabaya. Source: Nationaal Archief Netherlands-NL-HaNA_4.MIKO_2591.

Geological surveys conducted before airbase expansion revealed diverse soil compositions, with recommendations against building runways on blue clay areas due to insufficient soil support for aircraft. This geological diversity explains how

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the reconstruction of Morokrembangan Naval Airbase was done through the reclamation of a more solid material as the base of the runway. Furthermore, the soil situation, in general, also explained the absence of wet paddy fields (*sawah*) in Morokrembangan in general, unlike other rice-rich regions of Java Island (Anonymous 1914).

Its proximity to the Madura Strait facilitated migration from various parts of Java Island and neighboring Madura Island, enabling settlers to mostly rely on fishing as a profession. While detailed descriptions of daily life in Morokrembangan were scarce, recurring fire incidents reported by local newspapers suggested densely clustered housing susceptible to fires, constructed from less durable materials than wood.

By 1922, approximately four years after airbase construction commenced, a census recorded a population of 432 residents, including 112 adult males, 154 adult females, 93 boys, and 73 girls. Despite its adjacency to a major roadway connecting Surabaya to the significant satellite city of Sidoarjo, Morokrembangan lacked paved roads or utility pipelines. Notably, while this crucial transportation route featured water pipes and telephone cables indicating advanced urban connectivity, the villages it traversed remained devoid of such amenities (Anonymous 1914).

1. Morokrembangan Naval Airbase

The previous paragraphs illustrate that Morokrembangan was far from being an empty space. Surveys conducted throughout the twentieth century consistently reveal a way of life similar to that of other villages around the Madura Strait, particularly the deep-rooted connection to the muddy waters that determined the inhabitants' livelihood. Similar to other subsistence-based socio-economic communities, the villages of Morokrembangan did not feel the need for "aggressive" expansion into the existing swamp areas to the north of their settlements, a decision that differed from that of the Dutch Navy.

Before Morokrembangan, multi-branch military aircraft operations mostly took place in Tanjung Priok, a seaport quarter located in the colony's epicenter and capital, Batavia (Ward 1986:85). It was not until 1918 that the construction of the Morokrembangan airbase commenced through reclamation efforts, involving the "spraying" of sand onto the swamps to establish the base. This project incurred a cost of f403,000, a significant investment for infrastructure that did not last beyond three decades (Anonymous 1928c).

From 1918 to 1940, Morokrembangan underwent gradual development, equipping itself with several essential facilities to support naval aerial operations not only for Java but also for the entire archipelago. Hangars, workshops, ramps, and dormitories were predominantly constructed during the pre-war years. Its most notable feature was its canal or passage designed for amphibious aircraft maneuvers, enabling them to take off, land, and taxi entirely on the water surface (Zahir 2023:4). However, this distinctive facility would later pose unique challenges to Morokrembangan,

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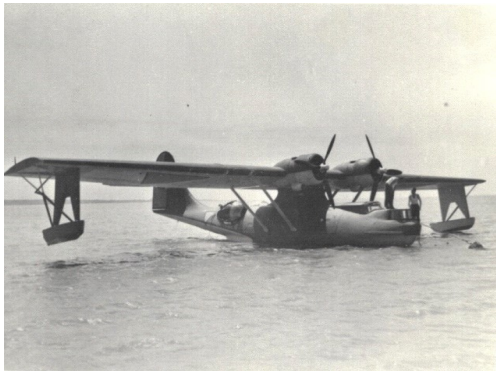
which further discussed in the following section.

Morokrembangan reached its peak shortly before the war, around 1939-1940. Before these years, Morokrembangan boasted two 3,000-foot runways complemented by 24 hangars and an advanced communication system enabling outreach to all KM bases and ships (Womack 2023:49). Again, such a facility suggests how Morokrembangan was the hub of the Dutch East Indies' maritime aerial presence, capable of tasks ranging from reconnaissance and transportation to providing logistical support, aerial cover for naval fleets, and executing bombardments (Geldhof and Burgerhout 1987:44).

However, by 1928, less than a decade after its initial use, the base came under criticism from the Dutch colonial administration, which deemed it unsuitable for commercial flights. Accidents were a common occurrence, cited among the reasons, with some resulting in fatalities or severe injuries (Anonymous, 1928a). Its proximity to the busy strait was also noted, prompting the civil administration to find a new location suitable for commercial planes. In such a context, the navy reiterated its exclusivity by conveying that based on their own survey, Morokrembangan was perfectly suitable mainly for naval operations (Anonymous 1928b).



Picture 3. PBY-5 Catalina, one out of two largest plane types based in Morokrembangan. Source: NIMH 1941.

To fulfill its tasks, Morokrembangan possessed a variety of modern naval aircraft. The Naval Aviation Wing, MLD, began its operations in the Netherlands East Indies with Fokker planes. However, it was not the Fokkers that made Morokrembangan stands out. Among its assets were two of the largest amphibious planes in naval aviation history: the Dornier "Wal" (or the "Whale") and the PBY-Catalina. Both planes were considered the "giants" of naval aviation, not just for the Dutch, but for other navies as well. Their impressive wingspans were indicative of their commanding presence: the Catalina spanned 32 meters, while the Whale measured 22 meters across. The presence of these two types of planes at the base illustrates the high level of advancement achieved by Morokrembangan during its peak, reinforcing its role as the primary base projecting naval aviation presence throughout the archipelago (Womack 2023:49).

Highlighting its role as a new landmark in the area, Morokrembangan served not only military functions but also became a symbol of pride and

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modernity. This base welcomed the colonial government of the Dutch East Indies and foreign dignitaries, such as the children of Belgian royalty, Princess Astrid and Prince Leopold, who landed there in February 1929 (Anonymous, 1929b). It was often described as a stopover for flights heading east, including those bound for Papua (the then Netherlands' New Guinea) or Australia.

Morokrembangan was devastated as the Japanese Imperial Army and Navy swiftly advanced into the Dutch East Indies in the early 1940s. However, the Dutch Navy initiated its partial destruction, recognizing Morokrembangan's strategic importance, believing it was better to demolish the base themselves rather than allow it to fall into Japanese hands (Womack 2016:273). Furthermore, a report revealed that the Dutch navy was dissatisfied with their own demolition efforts, as key structures like hangars and vital machinery were left intact, prompting them to seek assistance from army engineers (Womack 2016:273). Ultimately, it was not the army engineers but the Japanese who carried out the true destruction, destroying all Morokrembangan's main features, including planes and infrastructure.

However, before its destruction in 1942, Morokrembangan had a significant negative impact on its surroundings. This was primarily due to its extensive requirements for water and land space, which were exclusively allocated for aircraft operations. The sheer size of the base transformed the surrounding area into an unproductive landscape, leading to social issues. The following section elaborates on this matter.

2. Morokrembangan Airbase and Its Socio-spatial Impact

This section focuses on the central theme of the study: the impact of Morokrembangan as a naval base on its social and environmental surroundings. In general, the base influenced its surroundings by striving to ensure they were used exclusively for its operations. This study does not argue for the importance of one activity over another but rather emphasizes how the pursuit of exclusivity eventually led to the perception of emptiness, a subjective interpretation of space that was socially constructed rather than naturally present.

Prior to the Pacific War, Morokrembangan was recognized as the largest naval airbase not only in the Dutch East Indies but also in Southeast Asia (Womack 2023:276). Though exact figures on its size are scarce, it is believed to have been one of the largest and best-equipped naval aviation facilities in the "Far East" outside of those owned by the US and Japan. However, one thing is certain: the base was located amidst an existing community where "normal" life was potentially disrupted. In order to present case studies, the subsequent paragraphs firstly explores the extensive use of land, followed by the effects of exclusive use of the waters.

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a. Impacts on Land Space around the Base

To illustrate the profound impact of the base's vastness on people's lives, consider the following narrative. The story begins with a girl from Kamal, Madura, who regularly crosses the strait to an area between Surabaya and Gresik, not far from the established Morokrembangan Airbase. Initially, she makes these trips to sell fruits, but by the end of 1926, they also include meetings with her local lover. This lover arranges to meet the Kamal girl near the Morokrembangan airbase, known for its secluded surroundings. There, the girl, reportedly ready to commit to the man, experiences a tragic event. The man beats her severely, steals her ankle rings, and leaves her lifeless in the dense bushes bordering the bustling Morokrembangan Airbase.

The Surabaya police, investigating meticulously, eventually tracked down the perpetrator by following leads from pawnshops. One of the shops said that the girl herself had sold her ankle ring to one of these pawnshops in November, while the police were already certain of her passing since October. This last hint brought the police to the perpetrator (Anonymous 1926b).

The desolation brought about by the Morokrembangan Airbase, which the previous section lauded as advanced and active, also led to another criminal incident, happening shortly before the tragic murder of the Kamal girl. This second incident involved a taxi chauffeur named Kasiadi, who drove from Surabaya to Gresik, an area adjacent to Morokrembangan Airbase. While on his route, Kasiadi encountered three large boulders blocking the road. Without suspecting foul play, he attempted to clear the road, unaware that this was exactly what the robbers were waiting for. As he struggled with the boulders, three assailants emerged and threatened Kasiadi's life unless he handed over his belongings and refrained from resisting (Anonymous 1926a; Anonymous 1926b).

Faced with imminent danger, Kasiadi surrendered everything he had: 15 guilders, a wristwatch, and a sarong. Remarkably, the robbers spared his car, allowing Kasiadi to drive back to Surabaya and report the incident to the nearby police station. However, unlike the Kamal girl case, the Surabaya Police found it exceedingly difficult to track down the perpetrators, as Kasiadi himself could not provide clear descriptions of them, due to the darkness of the night and the fog of fear clouding his mind during the ordeal (Anonymous1926; Anonymous1926b).

The expansive grounds of the base not only created a sense of "emptiness" beyond its fences but also within the compound. This feeling of isolation weighed heavily for instance on a German aircraft technician responsible for maintaining the large Dornier plane, or "The Whale." Despite years of excellent work on the base, he began to experience what the newspaper referred to as melancholy. Unfortunately, his condition worsened to the point where hospital-based treatment became necessary. However, the treatment proved ineffective, and he eventually became distressed, threatening a nurse with a razor before leaping over the

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fence into a ditch. Tragically, he ended his life by slicing his artery underwater in the ditch (Anonymous1927).

These chilling tales, combined with the abandonment and wartime destruction of the base during the war with Japan, intensified the base's longstanding sense of melancholy. By the 1950s, the final users of the base, the Indonesian Navy aviators, believed Morokrembangan was haunted, ascribing unnervingly frequent accidents, particularly those occurring during construction, to what the aviators believed to be caused by supernatural influences. Moeljadi, an aviator stationed at P.U.A.L.A.M. (*Pangkalan Udara Angkatan Laut* Morokrembangan, where *pualam* also means "gemstone"), composed an English "poem" that ends with these lines:

> PUALAM became famous because of ITS GHOSTS, The whole area was haunted by GHOSTS, You don't believe it do you, Please do ask any body who lived there Surely, the answer will be "Yes Sir! That's Right! PUALAM was famous for ITS GHOSTS. (Leirissa 2006: 43).

To some degree, this situation depicts the state of desolation of Morokrembangan, which worsened just a few years after its complete abandonment in 1956 (Leirissa 2006:40).

At first glance, the presented stories might appear trivial, until one recognizes how the crimes, feelings of isolation, and ghost stories emerged from a broader sense of desolation created by the nature of a military base, in this case a naval one, which naturally distances itself from its surroundings. This characteristic discouraged "unauthorized personnel" from entering the area, limiting ordinary social interactions in the Morokrembangan kampungs and in Surabaya more broadly. In the end, the self-imposed separation of the Morokrembangan Naval Airbase seemed to foster social problems that were rarely voiced openly but found quiet expression in the rhythms of daily life.

b. Impacts on Water around the Base

The dispute over Morokrembangan's claim to an exclusive water area developed from initial complaints by local fishermen to the eventual issuance of an ordinance by the Volksraad (People's Assembly). This conflict stemmed from the inherent nature of water, which cannot be fenced off or heavily guarded like the land "borders" between the base and the surrounding communities. As mentioned earlier, the base relied on both natural and man-made bodies of water. The natural site was the Madura Strait, while the man-made site was a canal designed to resemble a rectangular-shaped "water passage" that extended into Morokrembangan's land.

Unlike the situation on land, the circumstances on the water prompted Morokrembangan Naval Airbase to openly intervene in creating a body of water exclusively for its use. Before discussing the inevitable conflict between the base and the surrounding fishing community, it is important to reemphasize that the base was situated

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on swampland that required continuous dredging. While the naval base needed deeper waters, the local community had adapted its fishing activity to shallow areas, which are located where amphibious aircraft were supposed to land and take off. Therefore, the continuously shallowing water favored fishing activities over the naval base, rather than vice versa.

Dutch newspapers were first to report complaints from fishermen in 1926 who said their fishing activities were being disrupted by Dutch navy officials. The navy accused the fishermen of endangering aircraft operations (Anonymous 1926a). From the standpoint of flight safety, the Dutch navy's actions seemed reasonable. Morokrembangan Airbase complained that fishing activities within and near the passage were highly dangerous for aircraft during take-off and landing, particularly at night. Low visibility in the passage and surrounding waters exacerbated the risk. Some pilots claimed they often landed or took off without realizing they were dangerously close to fishing boats or bamboo structures. Nevertheless, the fishing activities had been present long before the establishment and operation of the base (Anonymous 1926a).

Interestingly, the fishermen's complaint was noted and publicized, although only after they had spoken with the local indigenous officials, known as the *patih* (or lord-regent) of Surabaya. Their complaint was clear: navy officials not only prohibited them from fishing around the passage but also compelled them to take a longer route when traveling from their residences to the fishing spots (Anonymous 1926a). According to the fishermen, this detour was unnecessary and considerably increased their journey's time and cost. However, this complaint also stemmed from a promise made by the *patih*. Previously, the affected fishermen had to relocate their homes to make room for the airbase. As compensation, the *patih* assured them that they could continue utilizing the passage and surrounding waters as they had always done (Anonymous 1926a).

At this point, the solution seemed rather simplistic and shortsighted. Despite reports that the *patih* had conveyed the complaints to the base commander, the follow-up actions did little to benefit the fishermen, let alone address the underlying issues. The base commander assured the *patih* that the fishermen would be allowed to sail in the passage as long as they adhered to the designated times. As an additional assurance, the commander invited the *patih* to join him on a joy-flight, flying over the disputed passage to "survey" the areas they had previously discussed. After the flight, the fishermen's complaints were allegedly no longer acknowledged or addressed (Anonymous 1926a).

The concerns of the fishermen, conveyed through the *patih*, were likely the only recorded and published expressions from ordinary people that challenged the establishment of the naval airbase. In the following years, this naval airbase, was regarded as one of the most important and advanced military assets in the Dutch East Indies, became a matter of national significance. As a result, Morokrembangan

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attracted the attention of Batavia, leading the central authorities to issue not only local regulations for its protection but also broader policies formulated by the highest legislative authority.

Between 1928 and 1929, interestingly, rather than relying solely on force to assert control over Morokrembangan's passage, the Dutch Navy decided to take a legal approach to support their enforcement. Together with the civil government, they submitted a proposal to the People's Council (known as the Volksraad) to establish the legal status of the passage, which would undoubtedly benefit naval aviation operations.

In February 1929, more formal steps to ban fishermen's activities in the waters of Morokrembangan began. The main reason stated in the Volksraad meeting minutes echoed the base's complaints: the local fishermen's boat traffic (referred to as *Indische Prauwtjes*) in the amphibious aircraft takeoff and landing areas, which endangered the pilots and their aircraft (Anonymous 1929c).

The calculation of potential damages caused by collisions between aircraft and boats was deemed too expensive for the Dutch Navy to bear. Besides boats, fishermen's stakes (structures used to fish in the deeper water, usually made out of woods and bamboos) often went undetected by pilots' sight during takeoff or landing. During high tide, the stakes would be difficult to spot from the cockpit. Like boats, if an aircraft collided with a stake, the danger and damage would be significant. Therefore, preventive measures by closing this area from navigation and fishing activities were considered appropriate (Anonymous 1929c).

Discussion concerning this matter in Volksraad has at least two footnotes. First, the restriction policy applies to the waters of the Dutch East Indies and not international waters. Therefore, this policy would not interfere with navigation activities in open waters (Anonymous 1929b). To reinforce this calculation, Volksraad added that the waters discussed in this discussion are governed by article 3 of the coastal fishing ordinance (*De Kustvisscherijordonnantie*) as stipulated in Staatsblaad 1927 No. 144. (Anonymous 1929b).

The second and last written footnote is the response that affected fishermen might show. Volksraad, citing data provided by the Ministry of the Interior, stated that: "... the interests involved are of little significance, while there is an abundance of similar fishing waters nearby. In addition, the area to be restricted is a community fishing area, the involved interests are not very significant." Moreover, there are still many other fishing areas that fishermen can explore" (Anonymous 1929b). Furthermore, Volksraad wrote an observation without a source that: "there are no residents objecting to this proposal." (Anonymous 1929b; Anonymous 1929c).

Just two months after the initial discussion regarding Morokrembangan in the Volksraad, this council decreed a formal decision coded Onderwerp 120 (Issue 120) with the full title: "Provisions in the interest of safety in

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the takeoff and landing of seaplanes in the vicinity of the Morokrembangan airbase." This regulation was discussed in Cipanas, a foothill town known for retreat, in April 1929 and officially ratified a month later (Anonymous 1929c).

This regulation consists of five articles. Articles one to three regulate the prohibition of accessing the take-off and landing areas for seaplanes. In the first article, it is stated that the prohibited activities include not only fishing activities along the coast but also the placement of fish traps or other fishing gear in the southwest waters of the Morokrembangan Base. Article one also regulates the physical boundaries of the enforcement of this regulation. Except for the northern boundary, the boundaries to the west, east, and south are marked by the installation of lighthouses or buoy (Anonymous 1929c).

Meanwhile, articles two and three contain provisions aimed at finding a middle ground between maritime activities and amphibious aircraft operations. In article two, the Volksraad determines the shipping lane that fishermen can still roam and sail on when coming from or going to the Kali Anak. Navigation in this lane is allowed as long as fishing boats take a slight detour to the west of the mouth of the Kali Anak. During high tide, fishing boats are allowed to pass through the base waters except at night. When at night, different permitting provisions are made and regulated in article three (Anonymous 1929c).

In Article 3, this regulation states that during nighttime conditions as indicated by the turning on of two white illuminated buoys. If these illuminated buoys emit a green circular light, then night flight operations are activated. For pilots, this signal means they must be cautious and pay attention to their take-off and landing areas. Meanwhile, for fishermen, the green light is a sign that maritime activities must be terminated. This includes removing traps or other fishing gear. There is no explanation of how the government or the Morokrembangan base management socialized these technical regulations with fishermen and whether the fishing community comprehended the implementation of such a navigational technology (Anonymous 1929c).

The last two articles in this regulation show how the regulations established by this ordinance are enforced. In article 4, Volskraad stipulates that the punishment for violators is a maximum of one month in prison or a fine of 100 Gulden. Furthermore, this regulation, which certainly targets fishermen, grants the Dutch Navy stationed in Morokrembangan the right to investigate potential violations and act. According to this regulation, the Navy can refer to base commanders or officers and non-commissioned officers specifically appointed to conduct investigations. Since there is no explanation of the position of the local civilian police in this issue, Ordinance Onderwerp 120 has arguably laid the legal foundation of the militarization of the Morokrembangan area by placing

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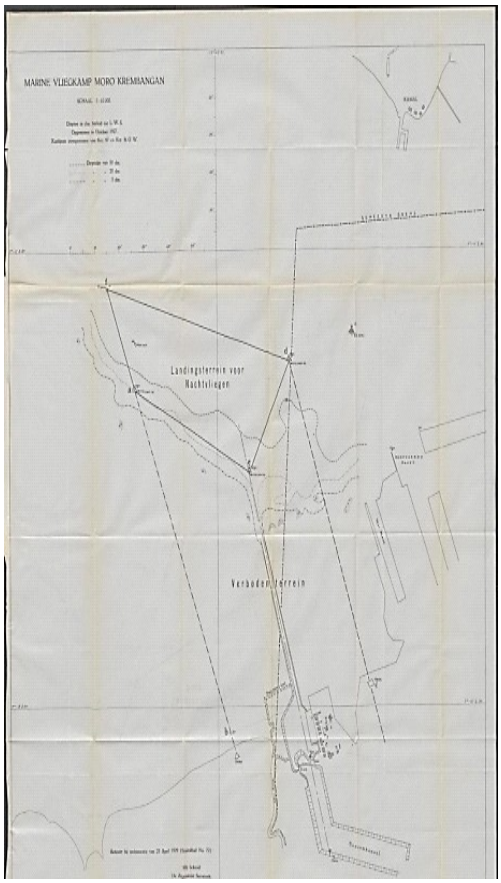
the navy as the only law enforcement authority (Anonymous 1929c).

The creation of the regulation marked a new phase in the occupation of the traditional fishing grounds of Morokrembangan's fishermen and those from nearby areas. What had previously been a matter of base security was elevated to a national issue, as the problem of access was brought before the Volksraad.

This development is interesting because Morokrembangan is a military airbase that could have chosen to isolate its space through "operational security" measures. However, it relied instead on a legal approach that embodied the occupation, or even colonialism, enforced through legal mechanisms, otherwise referred to as dispossession through legal means (Howard-Wagner, Altamirano-Jiménez, and Bargh 2018:2)

Even so, the use of legal means to forcibly acquire land gave the colonial power represented by Morokrembangan Airbase a seemingly gentler image. In reality, the seizure of space essential to human livelihood remained central to colonialism, consistently denying indigenous owners' recognition as "full human beings.



Picture 3. Appendix of the regulation concerning space limitation of Morokrembangan. Area within the dashed lines is prohibited for local fishermen and boats. Source: Staatsblad van Nederlandsch Indie 1929.

3. Inventing Emptiness

The impact of the base on both land-based and sea-based societal activities in Morokrembangan highlights the subjectivity involved in defining emptiness as a rationale for claiming exclusive use of space (Campbell, Giovine, and Keating 2019:1-2). Morokrembangan was constructed on swamps through reclamation technology. However, the colonial perspective reduces it to a mere marshy area, disregarding the existing society that already lived there. Aerial photographs and technical reports

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reinforced this perception of the site where the base was located, often overlooking the existing society and livelihood, both those living nearby or those who were being vacated, as well as the non-human elements of the ecosystem. Reports concerning the surrounding society often originated from other documents, especially popular newspapers. However, as the presented cases have shown, emptiness was never a natural occurrence; it was created by isolating the base from the "outside world," a situation considered ideal for naval or military activities in general but disrupting if not entirely eliminating the societal lives present before the base was built.

Understanding phenomena on land was relatively straightforward. Morokrembangan Air Base, like other military installations, relied on fenced perimeters aimed at deterring unauthorized activities in the base's vicinity. The goal was to create a relative absence of non-military-related human activities, which had twofold effects: in the first place, it desolated the surrounding area, thus becoming a hot spot of criminal activities, as seen in the case of the Madurese girl and the robbed taxi chauffeur. Responding to this, newspaper reports only mentioned the airbase as a background or nearby landmark to help readers understand the location of the crime scene, hardly pointing it as the "cause" of its anomaly of emptiness, especially noting how Morokrembangan's neighbour were Surabaya's bustling seaport and roads that connect Surabaya with its neighboring city, Sidoarjo.

Furthermore, the fenced perimeter also isolated the base from its surroundings, thus being narrated to be responsible for creating a sense of loneliness and unease among navy personnel residing in the camp. Interestingly, the Dutch and Indonesian Navies responded differently to this situation. The Dutch navy viewed it as melancholy, possibly leading to mental health issues experienced by one of its engineers. On the other hand, Indonesian Navy aviators, taking into account the relatively eerie physical state of the base after the war, believed that the base's condition might have attracted spirits or ghosts. In any case, both reactions stemmed from the deliberate distance created to protect the base from its surroundings (Pearson 2012:118).

In another sense, this situation is presumed to ensure the "preservation" of untouched greenery, broadly defined (Pearson 2012:117). Unlike military activities in the past, modern military installations often do not rely on natural resources located directly adjacent to their bases, but rather on more sophisticated logistical lines that connect the base with suppliers not necessarily on or near the site. Therefore, the presence of a base does not necessarily threaten the vegetation and environment in its surrounding area. However, during the construction of the installation itself, one can be sure of the unavoidable destruction of the existing natural landscape on the transformed site (Woodward 2014:2).

A similar goal of exclusivity was pursued for the water areas around the

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base (Pearson 2012:118). Unlike the situation on land, public complaints arose first and were publicized, indicating the intertwining of social and spatial problems with the Dutch Navy's decision to build an airbase on and around the existing fishing community at Morokrembangan. However, the situation on the water was relatively complex, as it sparked disputes over areas that could not be easily delineated without using artificial lines enforced by regulations and the use of force.

Here, one may see two issues that stand out: *firstly*, the way the Dutch Navy accommodate local community's voices is by offering mere discretion. Discretion, in this sense, refers to permission to sail and fish in a certain part and time of what is defined as a restricted area. The discretion suggests superficial solutions to the problem threatening locals, especially the fishing community's livelihood, including claim over their living territory. The superficial approach ranges from the invitation for the lord regent to do the joy flight, which touches nothing concerning the limitation of the fishing zone up to allowing the fishermen to access the waters as long as they pay attention to the lamp signals, without further explanation of how the rules were being socialized and introduced, concerning how the signals were assumed to be designed for mariners and airmen.

Secondly, although the Dutch Navy proposed a regulation-based solution, they still resort to the use of "force" for enforcement. For example, instead of employing regular civilian police with jurisdiction over fishermen around the base, enforcement falls to the navy itself, which owns and operates the Morokrembangan Airbase. By relying on "force," the navy effectively asserts control over the waterscape, particularly through the operation of aircraft, which poses a physical threat of collision to fishermen. The presence and maneuvers of these aircraft, especially large ones with amphibious capabilities, were intimidating enough to deter fishermen with more modest technology. In essence, the regulation crafted by the people's council served to justify the use of force that fishing communities had long experienced.

The exclusivity of the Morokrembangan Naval Airbase did not disappear when President Sukarno, through First Deputy Prime Minister Ir. Djuanda Kartawidjaja, ordered its closure to make way for a new airport on the outskirts of Surabaya, later named after Djuanda himself, who passed away during its development. The legacy of Morokrembangan's (colonial) exclusivity persisted, as the former airbase site remains an asset of the Indonesian Navy (TNI-AL) to this day. Its restricted status has continued, limiting access and maintaining separation from the city around it.

However, the rapid growth of Surabaya has created new dynamics in how Morokrembangan and other naval bases interact with their urban surroundings. In recent observations, public attention to Morokrembangan has shifted from stories of the unfortunate Madurese girl, the robbed Kasiadi, and fishermen losing access to waters, to the area's new role as one of Surabaya's important flood control

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basins (or *bozem*). Yet despite this strategic function, it remains unable to cope with the growing challenges posed by climate change.

D. CONCLUSION

The Morokrembangan airbase exemplifies how a military installation, even with minimal use of directly destructive weapons like explosives or ammunition, can have significant socio-spatial impacts on its surroundings. This impact is fundamentally caused by the possession of the sense of power, underpinned by the operation of weapons, but more critically, by the colonial context that positions the colonizers as inherently superior to the colonized, especially related to the latter's living space. In this scenario, the Dutch Navy acted as the colonizers, while the local society around Morokrembangan, powerless to contest or alter the changes imposed on their lives and living areas, represented the colonized.

The projection of power was manifested through two main methods: the disruptive maneuvers of naval aircraft, which significantly affected the soundscape of the area and the enforced creation of empty spaces necessary for the operational safety of both the base and the aircraft. Both methods proved equally disruptive to the local society, and interestingly, this disruption also extended, to some extent, to members of the Dutch Navy residing within the compound.

Given these characteristics, this study suggests that similar phenomena might be observable in other military installations, regardless of their specific use. Military installations inherently operate on non-democratic principles in relation to their surroundings, maintaining the narrative that their operational needs are paramount and should not be subordinated to other concerns, including the well-being of the local society. This raises the question of whether militaries or navies in democratic societies might exhibit similar displays of power.

To fully grasp how military and naval institutions operate, further research is needed that carefully integrates military and naval history with socio-environmental history. The voices of those most affected, in this case the local inhabitants from various professions, should be elaborately collected and recognized as vital foundations for understanding the actual impact of such an installation. This interdisciplinary approach offers a valuable way to uncover the complex relationships between military establishments and the environments and communities around them.

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