

Envisioning Multispecies Tropical Futurity: Image-Making in North Maluku's Frontier Zone

Danishwara Nathaniel

Geneva Graduate Institute, Switzerland

 <https://orcid.org/0009-0002-5993-7976>

Abstract

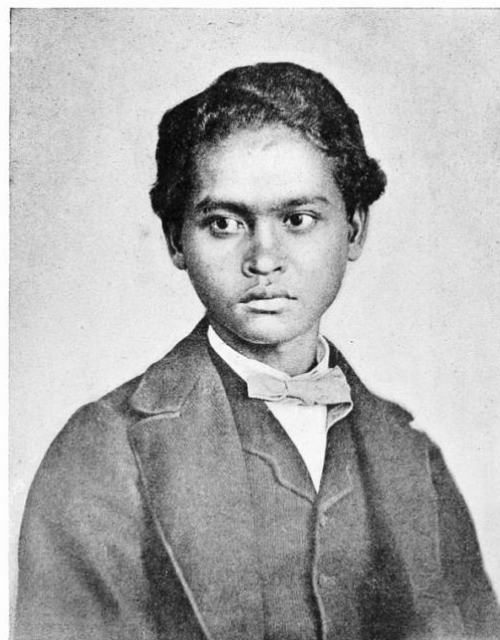
In recent years, the name Alfred Russel Wallace, the 19th-century British naturalist who co-conceptualized the theory of natural selection and authored the book documenting species diversity throughout Indonesia, titled *The Malay Archipelago* (1859), has regained significance in the place where he did his research: Ternate, North Maluku (the Moluccas), Eastern Indonesia. His legacy and icon are being reclaimed by local communities, inserting themselves as authors of the region's future, one that is centered on multispecies stewardship. Based on visual anthropology ethnographic fieldwork spanning over 15 months since the beginning of 2021, the materials presented in this article explore the perspectives of local cultural activists/practitioners in making visible their concerns, advocating for the rich multispecies existence on their island acknowledged globally since Wallace. Working with a team of university students, photography clubs, journalists, and heritage and environmental activists based in Ternate, I engage with everyday socio-cultural and visual media practices that treat images as modes of address/redress mobilizing affective engagement and political effects (Spyer & Steedly, 2013), contesting possible tropical futurities. Discussing three sites of image-making—a mural, wildlife photography, and drone-afforded reportage—I argue that these practices play a crucial role in intervening in and shaping how this tropical region is imagined at various scales, globally and nationally. Oscillating between utopian and dystopian scenarios, the images produced make a demand for a more just and livable future across species.

Keywords: multispecies tropical futurity, image-making, visual anthropology, environmental activism, Alfred Russel Wallace, North Maluku

Introduction: A Contested Legacy of Wallace in Ternate, North Maluku

“Look here, Sir, what a curious bird!” alerted Ali upon returning from hunting, gaining the attention of British naturalist Alfred Russel Wallace. These words are registered in *The Malay Archipelago* (1869), part-journal, part-scientific exploration in which Wallace documented the region’s impressive endemism, particularly bird species unique to the islands, while laying the groundwork for biodiversity as a discipline. It marked the moment a bird-of-paradise species endemic to the island of Halmahera, came into view and captivated Wallace. Bearing the taxonomic name of *Semioptera wallacii*, the bird is locally known as *Bidadari Halmahera*. Today, it continues to spark wonder, attracting bird watchers and observers from the world over, turning the bird into the region’s icon. Wallace, at that time, was convinced that he had procured his most prized specimen, which shared similar morphology with other birds of paradise, although “different and most remarkable from every other known bird” (Wallace, 1869). Yet, Ali himself, the Malay boy Wallace described as his “faithful companion,” collected the bird and brought it to Wallace’s attention (Figure 1).

Figure 1. *Photographic portrait of Ali in Singapore, 1862*



MY FAITHFUL MALAY BOY—ALI. 1855-1862

The only known portrait of Ali taken in Singapore when Wallace parted ways back to England. Photo from the autobiography *My Life: A record of events and opinions*. In the book, Wallace noted:

He here, for the first time adopted European clothes, which did not suit him nearly so well as his native dress, and thus clad a friend took a very good photograph of him. I therefore now present his likeness to my readers as that of the best native servant I ever had, and the faithful companion of almost all my journeyings among the islands of the far East. (Wallace, 1905, p. 383).

Despite being recounted in Wallace's book and described as his "best native servant", Ali remains an obscure figure in the background of Wallace's story (Sochaczewski, 2018). Ali, who was a Muslim and "native Malay" from Sarawak on the island of Borneo, where he first met Wallace, accompanied most of Wallace's journey further to the eastern Indonesian islands. Wallace relied on the labor of numerous local assistants in constructing his science. To make his expeditions possible, navigating boats, trekking the jungles and mountains, cooking, nursing, collecting, identifying, and inventorying the diverse species required a chain of labor of local aides (Whye, 2017). Shooting rare birds and animals and skinning them for preservation was a common practice in taxidermy that many 19th-century naturalists like Wallace engaged in. He delegated these tasks to many of his assistants before the specimen was brought to Europe, upon which it would often be sold to museums for display to finance his trips further.

Today, Wallace's trace is to be found in names and terminologies that commemorate him. Nestled between the large stretch of Sulawesi and Papua's Bird's Head Peninsula, North Maluku is a part of the Wallacea region, a unique biogeographical zone with a high number of endemic species, marked by an imaginary line called the "Wallace Line." It runs between the islands of Bali and Lombok and between Borneo and Sulawesi, separating striking differences between the fauna of Southeast Asia (tigers, elephants, primates) and endemic wildlife further east toward Australia (cockatoos, marsupials, blue-eyed cuscus). Furthermore, his name still echoes on the same island where he did his research.

In 1858, Alfred Russel Wallace arrived in Ternate, then North Maluku's major port city. From there, he posted his famous "Ternate Letters" to Charles Darwin, with whom he collaborated in formulating the theory of evolution and natural selection (Beccaloni et al., 2019). In *The Malay Archipelago* (1869), Wallace wrote how he rented a house in Ternate from a Dutch nobleman next to the European settlement across from the Dutch-controlled Fort Oranje. He turned the house into a base to work on his specimens collected from neighboring islands for over four years. Widely read today, the book not only provides insights into the habits and habitats of unique species in this region but also personal, at times prejudiced, reflections about his encounters with local communities. His journey throughout the archipelago reflects the pursuit of taxonomic science in which Victorian-era naturalists' ambitions to identify, record, and discover were intertwined with colonial claims over the natural world. This amalgam of records and publications feeds into the 19th-century repertoire of tropical imaginaries, which has been constructed by and intimately tied to imperialist objectives (Lundberg et.al, 2021).

While the work of Wallace in identifying endemic species made known to Western science is well-recognized—from Latinized bird species bearing his name written into biology textbooks to a whole biogeographical area in central-eastern Indonesia named after him—the names and contributions of his co-collaborators are less known. Western, colonial historiography often glorifies explorers and discoverers as individual heroes while dismissing the collaborative elements and dependencies on other actors in their journey. Within this context of (mis)representation and recognition through historical silences and absences, I now turn to contemporary socio-cultural practices that revolve around image-making situated in the same places that Wallace visited well over a century ago. At the heart of the matter is the contestation of hegemonic narratives and how, in redressing marginalized histories, local image-making practices challenge who can and should speak for nature in times fraught with extinction.

In recent years, the house's location in Ternate, where Wallace was living when he posted the famous letters to Charles Darwin, has become a site of contestation. Ternate and the wider region have gained renewed attention from international scholars, ecotourism initiators, and intergovernmental projects aimed at recognizing this region as the birthplace of the natural sciences associated with the global imagination of biodiversity conservation (Hajramurni & Asrianti, 2008). Controversies surrounding heritage revitalization and commemorative initiatives such as the development of Wallacea Museum have revealed tensions around historical memory, cultural identity, and the politics of representation in present-day North Maluku. What remains of Wallace's trace in the very places where he constructed his science is being retraced and revived, publicized, and popularized.

Ternate-based students, local environmentalists, and activists are discussing Wallace's works in situ, employing parallel methods of observation, documentation, and archiving, but for a very different sense of purpose, concerns, and effects—stating desires for owning their narratives related to the futures of endemic species. Notably, the renewed interest in Wallace is driven by the years of interaction and exchanges between researchers, academics, eco-tourists, and NGO workers at national and international levels. However, throughout my fieldwork, I noticed how local actors' deep sense of responsibility and care is rooted in their proximity and embodied experience of coexisting with these rich and unique species whose existence has attracted the world for centuries. Thus, they see themselves as strategically positioned “at the frontline (*garda depan*) [of biodiversity conservation]” (personal communication, 2022). To them, this entails actively valorizing and transmitting knowledge about the environment through various visual means that afforded its protection.

In this article, I start by looking at how Wallace became associated with the region's biodiversity, iconized, and appropriated locally to develop ecological awareness

amongst local actors. Employing a visual anthropological approach, this article analyzes everyday socio-cultural practices that emphasize visual engagements with landscapes crucial to imagining and cultivating a more just future and multispecies flourishing. Through an ethnographic approach, I ask how these cultural practices surrounding visual media and documentation intervene in dominant narratives and contribute to visions of tropical futures that emerged locally. Focusing on three different, yet interrelated sites of image-making and media forms, I discuss the emergence of a mural, digital photographs of birds through bird walks, and drone imagery, all addressing the current state of biodiversity in the region. These sites of image-making envision a silenced past, promote new ways of looking at and observing bird species, and make visible the specters of destruction tied to extractive capitalism. Situated in Ternate, North Maluku, I ground my ethnographic materials on how media practices of youth and university students, a community of “nature lovers”, photographers, and journalists teaming up with experts in natural biology, ornithology, and forestry have convened to forge their vision of a more relational and desirable tropical future of their region. Finally, I end with a discussion on competing visions for future worlds, which, despite their mutually exclusive and unequal investments in the present, are tied to the same tropical landscapes dramatically undergoing deforestation, Indigenous dispossession, and desolation.

The Appearance of a Mural

During my fieldwork in Ternate, I traced what remained of Wallace in a neighborhood called Santiong, said to be the site of his former house. An alleyway named *Lorong A. Wallace* (Wallace Alley) was marked on a street sign, a remnant of what was once the main street's name. As I entered the alley, a mural greeted each passerby featuring a portrait of Wallace and his Malay assistant, Ali, equal in size, side by side. Interestingly, the mural that popped up in 2018 is the first of its kind in Ternate to acknowledge the role of Ali in Wallace's story. It was drawn based on the photograph taken in Singapore in 1862 (Figure 1 below).

In the last decades, persistent efforts to turn Wallace's house's location near the Dutch-built Fort Oranje into a museum and memorial site have been attempted. In 2008, the then mayor of the City of Ternate, Syamsir Andili said in an opening speech of the first International Conference on Alfred Russel Wallace and the Wallacea in South Sulawesi's city of Makassar, that Ternate city administration would “reconstruct Wallace's former house into a monument” (Hajramurni & Asrianti, 2008). Subsequent plans to build a “Wallacea Observatory” including a biodiversity museum, a library, and a research center providing meeting space for visiting fellows have been suggested. Garnering interest from frequent visitors of international biologists, researchers, and ecotourism practitioners, the Indonesian province of North Maluku aimed to realize its

potential as a vibrant “learning center” (*pusat studi*) for biodiversity conservation as it sees itself as the “birthplace” of two greatest theories in biology and biogeography (evolutionary biology and the Wallace Line). With the renewed global interest in wildlife conservation, signs and markers (*penanda*) highlighting the importance of the region where a famous scientist once conceived his theory needed to be assembled in situ. In reality, however, the house was long gone, and its exact location is subject to speculation and controversy (Beccaloni et al., 2019). The absence of visible signs and markers of Wallace’s presence prompted various moments of creativity and contention.

Figure 2. Mural of Wallace and Ali in Ternate



A mural depicting Alfred Russel Wallace and Ali side by side was painted on a wall on the street where Wallace used to live in Ternate. Photo by author, 2022.

While the names and images of Alfred Russel Wallace were being promoted by the provincial authority, the regional government’s grand visions of imagining Ternate as a learning center that would attract “world-renowned scientists” to conduct research in the “living laboratory” of the islands of North Maluku, somehow fell short in their execution. Rows of modern houses had previously been built on the presumed

Wallace house site to cater for the influx of migrants, especially after the 1999 religious incited communal violence across much of Maluku (Wilson, 2008; Klinken, 2007). Turning this area into a museum would mean evicting many residents. In response, inhabitants rejected development plans that would not benefit them economically. The regional government's emphasis on building physical buildings and monuments as an end itself often dismissed the needs and perspectives of ordinary citizens who live around the proposed museum-observatory.

Moreover, community members of Santiong responded by diverting the global attention associated with Wallace. As international researchers and delegates arrived at the site during the international conference and symposium on the Wallacea region in 2008, the main road leading to what was said to be Wallace's house was named *Jalan (Street) Alfred Russel Wallace*. However, a few months later, local factions from the neighborhood renamed the street *Jalan Juma Puasa* after a local Muslim hero allied with the Sultanate of Ternate who grew up in that neighborhood, diminishing Wallace's presence even more. Ternate residents I talked with cited the change was done in protest of the neglect the neighborhood felt in the planning process surrounding the heritagization of Wallace. To this day, the street name remains the same. These tensions and contestations remain unresolved.

In 2019, however, students of Ternate's Khairun University (UNKHAIR) went to Santiong's Wallace Alley in consultation with the neighborhood's chief (*Lurah*) to free up wall space for murals depicting Wallace's story in Maluku and what it represents for the region. This was done as a part of their university curriculum whereby students had to engage in community service and public outreach. Meanwhile, discussions surrounding Wallace's relationship with Ali had been circulating in Ternate after public forums and workshops tracing his legacy in Ternate were organized by the city government. They also involved a group of foreign researchers as a part of the Alfred Russel Wallace Correspondence Project (Duchlun, 2019). Rightly, the students understood the need to narrate the history of Wallace and Ali in a more direct and publicly engaging way, as captured by a mural on a public street (Figure 2 above). Notably, the public knowledge represented in the mural image includes the figure of Ali, portrayed as the naturalist's skillful native assistant, equally instrumental in building knowledge about our multispecies world. To commemorate Wallace also means remembering the less visible persons who also contributed to building this knowledge, the mural seems to suggest. Important here is this realm of public knowledge that the mural format was created to convey that I focus on.

Subtle and ordinary in appearance, the mural hints at a greater significance. For many environmentalists and heritage activists in Ternate, who also took part in the university's student groups, the mural is one form of redressal of their marginalized

history. It is an image that rectifies their exclusion from the history of science. Ali, known to have married and started a family in Ternate, as mentioned by Wallace,¹ is believed to have kinship ties with the people of Ternate (*"masih basudara,"* still a relative). Through the figure of Ali, Ternate students and residents found connections with this history. The mural felt more representative. Imaginatively, the mural can be viewed as a way for local actors to inscribe themselves into the history of science situated in the very landscapes they inhabit. Interestingly, the mural faced almost no backlash. The fact that it somehow had resisted erasure over several years suggests a degree of acceptance, especially given previous controversies surrounding the legacy of Wallace. While this legacy comes with its problematic baggage, the commemorative work surrounding Wallace offers local communities an entryway to have conversations about the region's biodiversity, the history of how that knowledge was constituted, and the current state of the species identified by Wallace. In what follows, moving beyond Wallace's commemorative politics, I describe how grassroots, student-driven environmental initiatives in Ternate have assumed a leading role in disseminating awareness of existing yet vulnerable endemic bird species. Drawing on the global imagination of biodiversity conservation associated with Wallace's history on the island, local communities are reactivating senses of curiosity and wonder of their multispecies existence, attending to the specific ways "biodiversity" (*keragaman hayati*) and "conservation" are made meaningful in situ.

Making Nature Social: Activisms and Documentation

"Diverse groups of birds spread around our landscapes along the coast and mountain peaks," reads the translated opening statement of a recently published photo book, *Burung-Burung Indah Maluku Utara* [The Wonderful Birds of North Maluku] (David et al., 2021), by a Ternate-based wildlife photography club. The image-heavy book presented around 126 species, out of the 350 endemic birds recorded to have existed in North Maluku. Next to each image, information regarding the identified bird species includes level of observability, frequency of occurrence, location of the photograph, birds' characteristics, and breeding times. Numbers are emphasized given that the more counts, the more chances there are in establishing protected areas of a nature reserve, a successful end that is being pursued by their initiative. Formed in 2020 out of a routinized nature walk observing existing bird species in their habitat, Halmahera Wildlife Photography proclaims its aim is to "protect North Maluku's wildlife through the art of photography."²

¹ In *The Malay Archipelago*, Wallace twice mentioned Ali having married and established a family in Ternate (See Sochaczewski, 2018)

² <https://www.instagram.com/halmaherawildlifephotography/>

The book was their first publication, made possible through the combined efforts of local university students studying forestry or biology, wildlife photography enthusiasts, and Pak David, a forest ranger from the nearby Aketajawe-Lolobata National Park. Initially set up as a hobby club amongst birdwatchers, the group managed to attract wider communities of various backgrounds through their program “Maluku Bird Walk,” echoing other such initiatives of university nature clubs in different parts of Indonesia.³ The objective is to encounter birds in their habitat, identify their kinds, sometimes photographing them, and to keep a tally amounting to a population bird count. With these photographic records, they want North Maluku to be recognized as a tremendously biodiverse region of earth, as previously acknowledged by Wallace. However, awareness about the existence of these species “at their doorstep” (“*ada di sekitar kita*”) and its importance for the region economically, culturally, and socially required social medialization. Publicizing these images articulates visions for the future of this tropical region, using image-making to entice wider publics’ imaginings.

Maluku Bird Walk

Every Saturday morning at dawn in Ternate, participants meet at a designated point for a nature walk. Before the meet-up, calls for participation are disseminated through Instagram flyers that appeal to “families and friends to go out, have fun, and learn something new and unforgettable by getting to know other species all around us” (my translation).⁴ They also use the hashtag #RoadToMuseumGaleriWallacea to create a buzz by referring to the planned Wallacea Museum that was never actualized. The outdoor walk, instead, creates an alternative space outside the official institution to have conversations about biodiversity. A crucial component of the walk is the involvement of, and exchanges between, experts and non-experts in sharing information, resources, and skills. Wildlife photographers, consisting of civil servants stationed in Ternate and domestic tourists with interests in birdwatching, as well as the park ranger Pak David, bring various types of equipment. With digital cameras, telephoto lenses, notebooks, binoculars, and sound recorders, they set out to observe birds, documenting and recording species at specific times, locations, and dates. University students who are members of nature-loving and birdwatching clubs partake in the walk, learning straight from those with extensive field experience. Some families with younger kids also join as a weekend leisure activity.

On one of walks I joined, as we traversed the dense forest surrounding Ternate's crocodile-infested Lake Tolire, about halfway through encircling the cone-shaped volcanic island, participants attuned their senses to the landscape. Eyes and ears primed for any movement or noise. The trek was somewhat methodical: every 200

³ See Anna Tsing's discussion on the figure of the Nature Lover in her book *Friction* (Tsing, 2005)

⁴ Instagram post in <https://www.instagram.com/halmaherawildlifephotography/>

meters, we stopped for ten minutes to observe, listen, and record different birds we encountered. The ranger, Pak David, led the walk skillfully, quickly spotting and identifying birds by sight or sound. Even a faint call from afar was enough for him to recognize the bird species. Listening closely, he distinguished three types of bird sound: singing, warning, and calling to their partners. Explaining with clarity and patience, Pak David drew from his experience in taking visitors, tourists, and researchers into various rainforests to spot legendary species bearing the famous naturalist's name such as *Semioptera wallacii* (*Bidadari Halmahera*) and *Habroptila wallacii* (*Mandar Gendang*).

Figure 3. Participants of Maluku Bird Walk



Fellow participants of the bird walk are keeping an eye out for birds along the way.
Image courtesy of Dewi Ayu, 2022, used with permission.

Today in Ternate, these species can rarely be found. They are more common on the large neighboring island of Halmahera, where, the *Mandar Gendang* spread across the island, inhabiting lush vegetation in small numbers. Although a sighting is uncommon on Ternate, the bird can still be distinctly be heard. Named in English the Wallace Rail, Invisible Rail, or the Drumming Rail, their loud drumming sound, WAK-WAK-WAK, is easily recognizable. Thus, sensitivity to sounds is prioritized on the walks. One birder recalled hearing this unique sound but not being able to spot the

bird, which remained invisible and legendary: "That sensation of hearing their drumming, I will never forget!" (my translation). Hearing what is not seen, or rather seeing only through hearing, experiments with sensorial modes of "noticing" that bring multispecies worlds into being (Tsing, 2010). Paying attention to subtle differences is of utmost importance. The walk is also aided by a field guidebook produced by the Indonesian non-governmental organization (NGO) Burung Indonesia that visually catalogs the birds of North Maluku along with taxonomic information. The guidebook complemented our observational practice by matching and confirming what we encountered before registering our records from each walk.

Connected to the national network of Indonesian environmentalists, the walks receive support from environmental NGOs that operate in the region as the main driving force for bird conservation advocacy. During that walk, bachelor students in environmental science and anthropology made up the group, actively sharing the activities with their friends and family. Some have studied in Java's main universities and joined nature lover and birdwatching clubs there (Tsing, 2005). Upon returning to North Maluku, they felt the need to "*activate*" their region, recognizing its potential. Such inter-regional connections and networks within Indonesia crucially enabled these activities. On social media, they campaign for the possibility of "citizen science," which is broadly understood as involving non-experts in collecting data for wildlife inventories. Utilizing digital infrastructures, they connect with platforms like Burungnesia, a non-profit mobile app that since 2016 has offered a database of bird-spotting gathered from observers across Indonesia. Through the app, the Java-based founder, Swiss Winasis, aspired to make conservation records and maps of identified birds endemic to Indonesia more accessible (Supardi, 2022).

Importantly, the bird walk initiative seeks to establish North Maluku's own records and "*data*" of species diversity, amounting to a well-sorted and accessible document. Doing "citizen science" in their terms is imagined as vernacular practices of documentation and inventorying, and sharing these records first and foremost with fellow North Malukans. Broadly conceived as facts and evidence of the existence of diverse bird species in their landscape, "*data*" bears legitimacy in doing science. It is imagined as a resource for recognition, validity, and material grounds for realizing the dream of designating their region as a special zone of endemism that thus entails its protection. Moreover, the failure to constitute an official space that heeds the conservation of historical bird species at the provincial level has been attributed to the absence of data. Expressions such as "there is a lack of data" (*Data masih kurang*) and "to develop the ability to process data" (*bisa mengolah data*) motivate the mobilization of the term "citizen science," resonating with the language used by environment-centered NGOs. For the Maluku Bird Walk, data collection (*ambil data*) means recording and registering direct encounters with birds in ways that allow for an inventory of bird species. In one

conversation with a Bachelor student in anthropology I was told that "Growing up, we hear almost nothing [about these species...], we don't learn it in school, we knew nothing of their existence" (my translation). Such critiques of an epistemic gap stress not only ongoing structural inequality but also the emergence of a critical space outside formal institutions. In turn, going outside, direct observation, and recording bird sightings/soundings cultivate the "arts of attentiveness" for everyday observers learning to "pay attention to others and craft meaningful response" (Van Dooren et al., 2016).

Photography as a Mode of Collection

To the extent that photographs function as data, they become a resource for the group's campaigns, research work, and educational materials. The birdwatcher's impulse to record their encounters through empirical observation transforms into a practice of *dokumentasi* (documentation), imagined as acts of "*authoring, telling a story, or showing*," where capturing these images is less about possession and more about bearing witness. This position of being a witness is crucial to understanding how these acts of documentation translate into forms of activism. Learning in situ sparks novel imagination and creativity in ways formal spaces limit them. In this process, both the image-making practices and the images they produce are generative of imagining a more multispecies tropical future in their own image.

Lens-based visual technologies such as telephoto camera lenses and binoculars enhanced our observational practice. Looking through the lens enables close-up views and captures direct images without disturbing the birds in their habitat. Even though not all participants carried these devices, we exchanged roles and distributed tasks, reminding others to watch their step when looking up. When photographers were on the lookout, they emphasized the need to "always know your appropriate distance," maintaining an ethic of non-intrusion and respectful proximity. We stopped at a point to wait, in hiding, and restrained ourselves from making any movements that might disturb birds in view. When a couple of distinctly larger birds jumped from tree to tree at a distance across the lake, Pak David directed our attention. A group of Papuan Hornbill (*Rangkong*) with their large, curved beak and impressive casque on top, came into view. He mentioned how it is a good sign that they still "play around here." Hornbills are native to Papua, a huge lush island nearby. They play a crucial role in dispersing plant seeds that contribute to regenerating forests.

Observing and photographing a bird is a patient game of waiting. Once sighted, they reveal a lot of information about the surrounding environment for they are visual indicators of a vibrant rainforest. Experienced photographers, guided by their studious intuition and knowledge, combined with the the ranger's trained eyes and ears, helped

impart this knowledge to laypersons joining the walk. That day, fixing their eyes on the moving Papuan Hornbills with the aid of zoom lenses, photographers could anticipate moments when the birds would flaunt their wings before flying, as they tried to capture the perfect shot. Watching as the Hornbills jumped from one tree branch to the next, a few moments later, we were all in awe: A dramatic shot of a flock of Papuan Hornbill from afar as they cross a lake, flying from one tree canopy to the next (Figure 4 below).

Figure 4. A photograph of a captured image of Papuan Hornbill



This image of a pair of Papuan Hornbill flying across a lake in Ternate is directly taken by the digital SLR camera viewed in this image just moments after the action. The photographer is Muhiddin van Onthonk. Photo by author, 2022. Used with permission.

This “shooting” is reminiscent of the language and method employed by naturalists centuries ago. As one photographer pondered, “If Wallace hunted these birds to be preserved as a specimen, we choose photography as our tool to collect data” (my translation). Aiming at the animal as the subject, the camera “shoots” to reveal its essence in a single shot—the fleeting moment of the bird in action. Both naturalists and today's wildlife photographers share the impulses of hunting. The act of tracking, waiting, and aiming, yet differently with a camera intended to capture a visual record rather than to take life. While hunting removed animals from their habitat, photography seeks to document them in a context emphasizing conservation and respect. The bird walk aimed to tell a different story, of collecting and caring for (*merawat*) bird species, rather than possessing and preserving them as seen in specimen collections or in keeping caged birds as pets. Such a “shot” is not to kill but to create images endowed

with many lives. Once captured, these bird images take on lives of their own (Mitchell, 2005).

According to the group, one of the biggest threats to endangerment of vulnerable bird species in North Maluku—after deforestation driven by massive land transformation industrial projects—is poaching (David et al., 2021). Closely associated with the illicit wildlife trade, poachers cater to the demand of many domestic households for pet birds collected for their intriguing singing and mimicking voices (Bubandt, 2024). *Kasturi Ternate* (*Lorius garrulus*) or the Chattering Lory, a endemic forest-dwelling brightly-colored red parrot known for being a 'good talker,' is highly sought after and hunted for the domestic wildlife trade in this region (Collar & Boesman, 2020). Placed under the "Red List category" of the Global IUCN (International Union for Conservation of Nature), it is labeled Vulnerable, citing threats from continuing "habitat loss and human exploitation for the cagebird trade" (BirdLife International, 2024). In an effort to resist the worrying trend of wildlife trade of the endemic *Kakatua malaka* or Moluccan cockatoo (*Cacatua moluccensis*) for pet birds, part of the walking group's visual media engagement is to campaign for protecting these birds in their habitat. Compiling photographs and data from of their walks, they produced signboards highlighting the species' protected status, as well as the positive future prospects in letting them remain in their habitat to draw foreign visitors to see them in nature. The signboards are put up in the hope that the local public will become more alert to any suspicious poaching activities.

"It is a matter of understanding, of getting to know what [these birds] can be, and how we can relate to them in different ways," Pak David reiterated in one discussion after our walk (my translation). Sitting in circles on a patch of grass by the lakeside, we reflected on what we experienced during the trek. "Birds play such a big role in supporting human lives since forever," he stated, and then went on to remind the mostly Malukan participants of a popular local bird myth. Not endangered nor rare, the Willie Wagtail or *Rhipidura leucophrys* is commonly found in the Wallacea region of eastern Indonesia, living very close to human settlements. Mainly feeding on worms and insects, they stay close to food gardens, contributing to pest control. In Indonesian, they are called *Kipasan Kebun*, but locally known as *Kapita Baikole*, named after a mighty warrior of the Tidore Sultanate (Tidore is the small sister-volcanic island next to Ternate). North Malukans believe this bird is the incarnation of the warrior (*kapita*), known to be an agile fighter. Something that has been acknowledged by Tidore's current Sultan (David, et. al, 2020). These traits of a fighter can be observed in *Baikole*'s restless and quick movements, including the way it spreads its fine tail resembling an intricately woven wooden fan. The black-and-white songbird is considered sacred to North Malukans for this history. Natural disasters such as torrential rains and tropical winds await if anyone tries to hunt or even disturb these

birds (Mukhaer, 2023). Thus, most locals refrain from hunting them. Nonetheless, their ease with living close to human settlements has captured the human imagination and is intimately tied to the region's history and ancestral pasts. That morning during our walk around the lake, we encountered and video-recorded a large *Baikole* feeding its newly hatched chicks resting in a bowl-shaped nest of grass, delicately positioned between two branches (Figure 5).

Figure 5. A screen capture from a video of *Baikole* feeding its newborn.



A screen capture from a video uploaded to the Instagram of one of the birdwatchers, location point shown in Lake Ngade. Photo by Andi Muhiddin, used with permission.

A New Ethics of Care

Noticeably, the walking group's photographic practice encourages an ethic of non-intrusion, maintaining a respectful distance to let wildlife live and offering a way to mediate ethical considerations. To Dewi Ayu, one of the organizers of Maluku Bird Walks, lens-based observation provides a "bridge" between the human and animal worlds. In her words, "through [the practice of] wildlife photography, we learn to co-

exist with other living beings" (my translation). Afforded by telephoto lenses and digital cameras, the magnified bird pictures serve as an extension of human vision. The species in focus are magnified and fixed at a certain time and place. They allow for different kinds of appreciation and interpretation as images of endemic species are brought to a wider audience. A prominent curator and artist in Ternate, Fadriah, offered her exhibition space for these photographs. Thus, the bird's images came to be displayed in the old Dutch Fort that today has been transformed into the cultural and community hub of Ternate and is located close to the site of Wallace's house. On the curatorial text for the group's exhibition, Fadriah noted how the images are not merely a "show of beauty and pride, but behind those, there lies an essential expression noticeable on the feathers, wings, beaks, tails, and colors conveyed through the photographer's aim through the lens" (my translation). Thus, their photography seeks to go beyond conventional wildlife photography as a genre for mere aesthetic enjoyment which carries a colonial baggage. Crucially here, image-making is used to address an entirely new audience, those who live "at the frontline" and co-exist with these species in the tropical region.

Having noticed these details only upon closer inspection of the printed pictures of "local birds," Fadriah speculated how the images brought out their cries for being "heard, admired, and loved, where they are." Complimenting the photographers' work, she commented on how Pak David's photographs are not merely about "embellishing...but more an attitude to know one's reach and distance...aligned with the awareness of birds as our precious natural heritage" (my translation). As these images circulate through new circuits and public spheres, they reach the eyes of new people, some of whom may not have had the privilege of encountering North Maluku's wildlife in their habitat. Through photographic exhibition, the reproduced and curated images transform into a new vernacular that could spark imagination and inspire a new ethics of care and learning. On weekdays, local elementary school children organized a visit to the exhibition as a part of their class trip. They learned from such informal spaces, organically organized, and in a non-didactic manner. Furthermore, the images engage viewers on an affective level, eliciting specific reactions. One review of the photobook from a bird observer in Java appreciated how it contained rare information about endemic bird species of the region not found in other wildlife photobooks. He calls the book "...beyond photography! It's photographed science!" (David et al., 2021). Another reader called the photos a "window to knowledge" [*jendela pengetahuan*], which opens up new horizons, and admirably said that "looking at these pictures breathes new life in me" [*menjadi muda kembali*].

Moreover, the acts of *dokumentasi* [documentation] and its public dissemination offer a way for regional actors to become their own authors and narrators. Redressing their marginality by taking an active role in documenting, publishing, and telling stories of

more-than-human others calls for attentive listening and responding ethically, grounded in what Anna Tsing proposed as "passionate immersion in the lives of the nonhuman beings studied" (Tsing, 2010, p. 201). Hence, situated in contemporary Ternate, North Maluku, the practice of bird watching is reframed and reimagined to foster multispecies knowledge systems, holding "the potential to draw others into new relationships and accountabilities" (Van Dooren et al., 2016, p. 16). In this sense, mobilizing the bird images becomes a form of activism that promotes multispecies flourishing in times fraught with destruction and extinction. On another occasion, the photography club displayed their photos of various endemic bird species on stands spread across Ternate's landmark waterfront area, confronting urban dwellers and passersby with the realization that these species are still among us. Even as these images bring into view vulnerable species, they also circulate as carriers of aspirations, calling for future responsibilities and knowledges that reflect on our place within a multispecies web of relations. The bird images call for caring (*peduli*) and taking responsibility.

Bird's Eye View, or Drone Activism

So far, I have been talking about the various forms of enacting care via image-making, empowered by the sense of owning one's own hi(story). The bird photographer-activists, who were mostly local student organizations and environmentalists, see their action as vital amid an aggressive state-driven ambition for extractive projects and the devastation of tropical ecosystems of North Maluku's rainforests, rivers, and coastlines, which are home to the diverse species of endemic birds. This rather insidious process of dehabitation, understood as "slow violence," is driven mainly by the expansion of the nickel extraction frontier, deemed necessary to provide critical raw minerals for the world's energy transition to renewable energies (Nixon, 2011). In recent years, the Indonesian government has aimed to secure its position as a significant geopolitical player in the global supply chain of Electric Vehicle (EV) production, ironically celebrated as a technical solution to climate breakdown (Timmerman, 2022).

Indonesia boasts having the largest nickel reserves in the world. After a series of structural reforms, Indonesia has been increasing its domestic capacity for industrial production, cutting red tape, broadening foreign investment, and partnering with China to build smelter and refinery facilities implementing the so-called "downstreaming" industrial policy (*hilirisasi*) (Medina, 2023). This results in the massive transformation of land into industrial parks along the nickel belt of central Sulawesi and North Maluku's mountain ranges and coastlines (Climate Rights International, 2024). On the ground, this means clearing large swaths of rainforests and mangrove areas, pollution and contamination of air, riverways, seas, and unprecedented environmental degradation

at large. These occurrences significantly threatened the home of hundreds of North Maluku's endemic species. Jakarta's vision for the region flies in the face of the grassroots initiatives and visions I just described in previous sections.

Seen as a way out of the fossil fuel economy, this move is fully reliant on extractive industries inflicting harm and irreparable damage on other, less visible geographies. In Halmahera and Obi Islands, North Maluku, two major nickel mining projects within the so-called "industrial parks" operate under the government's *Proyek Strategis Nasional* (Strategic National Project) which entails special economic zones of infrastructural developments guarded by police and armed forces. On the biggest island of North Maluku, Halmahera, land and territorial disputes are more pervasive, associated with the expansion of nickel mining concessions (Climate Rights International, 2024). However, under these secured special zones and guarded conditions, the human, social, and heavy environmental toll is barely documented. Deforestation moves at a faster rate than conservation. To expose this "slow violence" which oftentimes is rendered invisible, some of my interlocutors in North Maluku who are also members of a network of local environmentalists, have turned to using drone photography.

Figure 6. Drone-afforded image showing mining's aftermath



Gee Island in East Halmahera that was damaged after mining.⁵ Image courtesy of Adlun Fiqri, 2021. Used with permission.

⁵ See full report (Fiqri, 2023)

Quite literally, drone photography employs a “bird’s eye view” operating in the air, and thus gaining a significantly wider perspective (Figure 6). In this case, it exposes scenes of barren landscapes connected to environmental devastation and social injustices in often neglected areas and remote regions. These high-definition digital images make the enormity of unfolding destruction palpable, capturing what might not be immediately perceptible or sensed if conveyed only through words or statistics. Situated in marginalized regions, these drone-captured visions mediate the dire consequences of extractive projects in a particular place, bearing witness to what is currently rapidly unfolding. Whereas images of birds are shot up close, drone-afforded images show the extent of horizons and the scale of devastated landscapes where birds and other species once relied on rainforests to live, underscoring the gravity of the situation. Easily transported inside one’s backpack due to its small size and operated from a strategic location without getting noticed, civil camera drones have become a prevalent tool in the environmental activist’s arsenal.

An alumnus of Ternate’s Khairun University (UNKHAIR) and a participant in the bird walk, Adlun, currently works as a licensed journalist. As someone who was born and raised near the mining zones, he knows the terrain very well and the spots from which drones could be flown to record this devastation. Moreover, he has been closely involved with the NGO Burung Indonesia in recording the birds of North Maluku, as well as advocacy groups for marginalized, Indigenous people affected by mining industries. With knowledge of the terrain, he has helped facilitate international reporters, investigators, and researchers who are now zooming in on the unfolding catastrophe. In recent years, global media attention to the region has risen, reporting on the hidden cost and “dirty” trail of the supposedly “clean” energy in electric cars (Timmerman, 2022). Adlun likened the situation faced by him, his family, and his communities to “*penjajahan gaya baru*” or neo-colonialism, echoing the earlier colonial era whereby Western empires competed to obtain monopoly over the spice trade always at the expense of local communities and their lived environments.

A techno-militaristic instrument, the drone was developed for military purposes and intended as an instrument of the militaristic state.⁶ However, appropriated in a counter-hegemonic visuality, these drone-afforded images bring hidden and remote sites of environmental conflict into open view with dramatic effects. Detached from the human body, the drone becomes a more-than-human apparatus extending vision, able to “get beyond the gates of corporations,” in the words of a journalist equipped with a drone I encountered in Ternate. Moreover, circulating as digital objects, the speed and reach

⁶ More recent anthropological research has looked at the counter-hegemonic use of drones for the common good (Choi-Fitzpatrick, 2020) and justice (Radjawali & Pye, 2017).

of these images are fast and wide. They circulate as investigative documentaries,⁷ as social movements' campaign materials,⁸ and photographs in journalistic articles⁹—depicting once vast rainforests stripped of their trees, mining tailings flowing through rivers and into the open sea, and entire islands left porous and barren where lush greenery once thrived. The drone vision opens robust possibilities within digital activism, which has a transnational nature (Bräuchler, 2021).

Disseminated to challenge hegemonic climate discourse and refute claims of “clean energy,” the images demand accountability by confronting the question of who is paying the price of this particular view of the future in which mineral extraction is the order of the day. In making these sites of damaged landscapes a global problem, the drone images produced by local activists put their region's devastation on the map of environmental justice movements (Temper & Shmelev, 2015), laying bare what is being done to this part of the world for the betterment of other geographies. Within the global imagination of tropical and frontier regions, such images also produce relational ways of seeing across power asymmetries, between the tropics and temperate (North and South) worldly zones, and between the tropic regions (South to South), and thus capacitate new political subjectivities within an emergent planetary movement working collectively towards a more just future across species.

Image-making as World-making

In the digital age, images have become the material grounds on which contestation, experimentation, and political engagements constitute the everyday practices of democracy (Strassler, 2020). Attending to how images and image production are deployed and affect different publics, as well as images' roles in developing new awareness and subjectivities, put images at the center of political processes. Throughout this article, I have highlighted how different modalities of image-making shape the ability to address present concerns and redress dominant visions of the future. The mural, the bird pictures, and the drone's bird's-eye view are significant appearances that reveal vernacular projections and affective investments laden with ideas and values that remain contested in the public sphere. Through an ethnographic approach and visual anthropological analysis, I understand these image-making practices as world-making through the ways that they intervene in official narratives, address or redress marginalized histories, and reveal the socio-political and historical embeddedness of climate breakdown that foregrounds environmental justice positionality.

⁷ See Youtube documentary produced by WatchDoc (ILUSI TRANSISI ENERGI, 2024) and Climate Rights International (2024). Here, the drone visuals were either taken or assisted by my interlocutors.

⁸ See #SaveSagea campaign in Instagram: <https://www.instagram.com/savesagea/>

⁹ See the superb images produced by Adlun Fiqri (2023) and documentary photographer Muhammad Fadli in (Timmerman, 2022)

Understood as a world-making process, aesthetic practices provide an alternative language to the often ahistorical, technoscientific, and positivistic frameworks that underpin hegemonic climate discourse, which is geared toward policy-making assuming universality (Demos et al., 2021). At the local and regional scale, these creative and critical interventions highlight a “powerful response to climate change and the transformations people witness and are affected by” that point to aspirations for a more habitable future across species (Crate & Nuttall, 2003, p.8). Beyond the hegemonic techno-solutionism and technocratic approaches to the climate crisis, the aesthetic practices discussed here speak to various modalities in which the environment around us is made perceivable. Magnifying bird species worthy of our attention, exposing the driving forces of their habitat destruction, and inserting an unacknowledged figure in the history of science in a commemorative mural, not only challenge existing ties and hierarchies but also offers meaningful reflections on ethics and epistemic responsibility.

Drawing from the historical and cultural understanding of their place, the media practitioners and activists concerned here creatively experiment with elements of the past. They grab remnants and signs of the past, remolded to gather attention at regional, national, and global scales. In Ternate, student groups, media practitioners, and environmentalists sought to trace what remained from centuries ago. World-making is always a process of reassembling and reimagining that involves responding to and remaking existing worlds (Crate & Nuttall, 2003). The legacy of the taxonomic science of British naturalist Alfred Russel Wallace, already a global symbol of the natural sciences and environmental conservation, is revalorized and repurposed to challenge who can speak for nature and on what terms. They serve as entry points for generating awareness of tropical multispecies richness in a region increasingly threatened by mass destruction and extinction. In turn, the images discussed here demand collective effort and solidarity as multispecies entanglements are made visible.

Conclusion: A Frontier of Tropical Futures

From Jakarta, Indonesia's capital and center of political power, these islands are imagined as a "resource frontier" (Tsing, 2003). In the early years of his presidency, Indonesia's Joko Widodo emphasized how the country's eastern region holds the future of Indonesia (Humas, 2015). By developing infrastructure and tapping into the region's natural wealth, eastern Indonesia is projected to be a site of enormous economic potential in need of financial investment to elevate Indonesia's economic status. The previous Indonesian President Joko Widodo commended North Maluku province's spectacular economic growth rate of 7 percent, which exceeded the

national GDP growth rate in 2022, mainly driven by the expansion of extractive industries in the region. The relentless development and industrialization projects have overridden local needs and concerns (Humas, 2022). A series of nationwide structural and law reforms enacted in 2020, such as the Energy and Mineral Law and the Job Creation Law (popular known as the Omnibus Law), have backtracked earlier efforts in decentralization and regional autonomy, following a decade of declining Indonesian democracy (Anugrah, 2023). In late 2024, the former Army general with strong ties to both Jokowi and, as the previous son-in-law of the Indonesian dictator Suharto, the country's former authoritarian New Order regime, became president. During his campaign, Prabowo Subianto vowed to continue President Jokowi's flagship policies, including "downstreaming" industrial sectors and rapid economic growth (Desk, 2024).

In the name of development and sovereignty, these regions are marked out for mineral extraction, reducing rich life forms and multispecies histories, as articulated by the media practices I described, into mere capitalist resources (Gomez-Barris, 2017). This vision echoes a colonial gaze long cast upon these islands—lands registered as resource-abundant, primed for commodification, depletion, and conversion into profit for the hands of a privileged few. Ultimately, the tropics, with their encompassing materiality and fecundity, have shaped long trajectories of human history—in sciences, geopolitics, traditions—at home or across the seas. At this watershed moment, the future is a contested frontier. For my interlocutors in Ternate, experimentation with different media embodies the making of worlds premised upon contested histories continually being shaped and reshaped to envision a more just and sustainable future. Images and aesthetic practices, in this way, become "sites of intervention" that can articulate the singularity of experiences by making it sensible and perceptible, and therefore, something that can be responded to accordingly (Demos et al., 2021). Making sensible their everyday environment—the neighborhood mural, rainforest areas where birds took shelter, and relentless extractivist encroachments on villages and ancestral land—are responses to the imposition of one hegemonic vision of the future that marginalizes other worldviews. In this regard, these visual media practices are not only representative of marginalized subjects but, indeed, become common grounds on which tropical visions of a more just future and multispecies flourishing are actualized.

References

- Anugrah, I. (2023). Land Control, Coal Resource Exploitation and Democratic Decline in Indonesia. *TRaNS: Trans -Regional and -National Studies of Southeast Asia*, 11(2), 195–213. <https://doi.org/10.1017/trn.2023.4>
- Beccaloni, G., Whincup, P., & Muhdi, A. (2019). *The Location of Alfred Russel Wallace's Legendary House on Ternate Island, Indonesia*. <https://doi.org/10.13140/RG.2.2.11813.86242>
- BirdLife International. (2024). *Chattering Lory (lorius garrulus) - birdlife species factsheet*. Data Zone BirdLife International. <https://datazone.birdlife.org/species/factsheet/22684581>
- Bräuchler, B. (2021). Facilitating resonance: Brokerage in indigenous activism. *Cultural Dynamics*, 33(4), 382–400 <https://doi.org/10.1177/09213740211011192>
- Chakrabarty, D. (2009). The Climate of History: Four Theses. *Critical Inquiry*, 35(2), 197–222. <https://doi.org/10.1086/596640>
- Choi-Fitzpatrick, A. (2020). *The Good Drone: How social movements democratize surveillance*. The MIT Press.
- Collar, N., & Boesman, P. F. D. (2020). *Chattering Lory (Lorius garrulus)*. Birds of the World. <https://birdsoftheworld.org/bow/species/chalor1/cur/introduction>
- Climate Rights International. (2024, January 23). *Nickel Unearthed: The Human and Climate Costs of Indonesia's Nickel Industry*. <https://cri.org/reports/nickel-unearthed/>
- Crate, S. A., & Nuttall, M. (2023). Introduction. In S. A. Crate & M. Nuttall, *Anthropology and Climate Change: From Transformations to Worldmaking* (3rd ed., pp. 1–22). Routledge. <https://doi.org/10.4324/9781003242499-1>
- David, A., Muda, A. L., & Mahroji. (2021). *Burung-Burung Indah Maluku Utara*. Balai Taman Nasional Aketajawae Lolobata.
- Demos, T. J., Scott, E. E., & Banerjee, S. (Eds.). (2021). *The Routledge Companion to Contemporary Art, Visual Culture, and Climate Change* (1st ed.). Routledge. <https://doi.org/10.4324/9780429321108>
- Desk, N. (2024, March 26). *No shame in continuing Jokowi's policies, Prabowo says*. The Jakarta Post. <https://www.thejakartapost.com/indonesia/2024/03/26/no-shame-in-continuing-jokowis-policies-prabowo-says.html>
- Fiqri, A. (2023, January 26). *Mining Comes, Halmahera Coast Perishes*. iklimku.org. <https://www.iklimku.org/mining-comes-halmahera-coast-perishes/>
- Gómez-Barris, M. (2017). *The Extractive Zone: Social Ecologies and Decolonial Perspectives*. Duke University Press. <https://doi.org/10.2307/j.ctv1220n3w>
- Hajramurni, A., & Asrianti, T. (2008). Ternate to build Wallace Observatory. *Jakarta Post*.
- Humas, S. K. (2015). *Sebut Wilayah Timur Masa Depan Indonesia, Presiden Jokowi: Yang Perlu Dikerjakan Infrastruktur*. Sekretariat Kabinet Republik Indonesia. <https://setkab.go.id/sebut-wilayah-timur-masa-depan-indonesia-presiden-jokowi-yang-perlu-dikerjakan-infrastruktur/>
- Humas, S. K. (2022, September). *Pertumbuhan Ekonomi Maluku Utara di Atas nasional, Presiden: Harus dijaga terus*. Sekretariat Kabinet Republik Indonesia. <https://setkab.go.id/pertumbuhan-ekonomi-maluku-utara-di-atas-nasional-presiden-harus-dijaga-terus/>
- ILUSI TRANSISI ENERGI | *Bloody Nickel Series*. (2024). Youtube. Retrieved 2024, from <https://youtu.be/keXR3ZQssZg?si=TAR06jO3y4phePhz>
- Klinken, G.V. (2007). *Communal Violence and Democratization in Indonesia: Small Town Wars* (1st ed.). Routledge. <https://doi.org/10.4324/9780203965115>

- Lundberg, A., Vasques Vital, A., & Das, S. (2021). Tropical Imaginaries and Climate Crisis: Embracing Relational Climate Discourses. *eTropic: electronic Journal of Studies in the Tropics*, 20(2), 1–31. <https://doi.org/10.25120/etropic.20.2.2021.3803>
- Lowe, C. (2006). *Wild Profusion: Biodiversity Conservation in an Indonesian Archipelago*. Princeton University Press.
- Medina, A. F. (2023). *Unleashing nickel's potential: Indonesia's journey to global prominence*. ASEAN Briefing. <https://www.aseanbriefing.com/news/unleashing-nickels-potential-indonesias-journey-to-global-prominence/>
- Mukhaer, A. (2023). *Burung Kipasan Kebun Punya Cerita dalam Mitologi Maluku Utara*. National Geographic Indonesia. <https://nationalgeographic.grid.id/read/133781907/burung-kipasan-kebun-punya-cerita-dalam-mitologi-maluku-utara>
- Mitchell, W. J. T. (2005). *What do pictures want?: The life and loves of images*. University of Chicago Press.
- Moore, J. W. (2017). The Capitalocene, Part I: On the nature and origins of our ecological crisis. *The Journal of Peasant Studies*, 44(3), 594–630. <https://doi.org/10.1080/03066150.2016.1235036>
- Peluso, N. L. (1995). Whose woods are these? Counter-mapping forest territories in Kalimantan, Indonesia. *Antipode*, 27(4), 383–406. <https://doi.org/10.1111/j.1467-8330.1995.tb00286.x>
- Duchlun, R. (2019). *Lokasi Rumah Wallace di Ternate Sudah Diidentifikasi*. Cermat. <https://kumparan.com/ceritamalukuutara/lokasi-rumah-wallace-di-ternate-sudah-diidentifikasi-1rnFS2Y8N2i/full>
- Radjawali, I., & Pye, O. (2017). Drones for justice: Inclusive technology and river-related action research along the Kapuas. *Geographica Helvetica*, 72(1), 17–27. <https://doi.org/10.5194/gh-72-17-2017>
- Strassler, K. (2000). *Demanding Images: Democracy, Mediation, and the Image-Event in Indonesia*. Duke University Press. <https://doi.org/10.2307/j.ctv11qdxrf>
- Sochaczewski, P. (2018, January 30). *The Search for Ali*. Paul Spencer Sochaczewski. https://www.sochaczewski.com/2018/01/30/the-search-for-ali/#_ftn10
- Spyer, P. & Steedly, M. M. (2013). *Images That Move*. SAR Press.
- Supardi, A. (2022, July 22). *Burungnesia, Data Digital Spesies Burung liar Berbasis Warga*. Mongabay. <https://www.mongabay.co.id/2022/07/22/burungnesia-data-digital-spesies-burung-liar-berbasis-warga/>
- Temper, L., & Shmelev, S. (2015). Mapping the frontiers and front lines of global environmental justice: The EJAtlas. *Journal of Political Ecology*, 22(1). <https://doi.org/10.2458/v22i1.21108>
- Timmerman, A. (2022). *The Dirty Road to Clean Energy: How China's Electric Vehicle Boom is Ravaging the Environment*. Rest of World. <https://restofworld.org/2022/indonesia-china-ev-nickel>
- Tsing, A. L. (2003). Natural Resources and Capitalist Frontiers. *Economic and Political Weekly*, 38(48), 5100–5106. JSTOR. <http://www.jstor.org/stable/4414348>
- Tsing, A. L. (2005). *Friction: An Ethnography of Global Connection*. Princeton Univ. Press.
- Tsing, A. (2010). Arts of Inclusion, or How to Love a Mushroom. *Manoa*, 22(2), 191–203. <http://www.jstor.org/stable/41479491>
- van Dooren, T., Kirksey, E., & Münster, U. (2016). Multispecies Studies: Cultivating Arts of Attentiveness. *Environmental Humanities*, 8(1), 1–23. <https://doi.org/10.1215/22011919-3527695>
- Wallace, A. R. (1905). *My life: A record of events and opinions*. London: Chapman and Hall. Volume 1. <https://wallace-online.org/content/frameSet?itemID=S729.1&viewtype=text&pageseq=1>

- Wallace, A. R. (1890). *The Malay Archipelago*. London: Macmillan & Co.
- Wilson, C. (2008). *Ethno-Religious Violence in Indonesia: From Soil to God* (1st ed.). Routledge. <https://doi.org/10.4324/9780203928981>
- Whye, J. van. (2017, October). "I am Ali Wallace", the Malay assistant of Alfred Russel Wallace: An Excerpt. The Conversation. <https://theconversation.com/i-am-ali-wallace-the-malay-assistant-of-alfred-russel-wallace-an-excerpt-85738>
-

Acknowledgements

This research was fully funded by the Swiss National Science Foundation, under grant number 184868. The author is grateful for the financial and institutional support provided, which made this study possible. The views expressed in this article are those of the author and do not necessarily reflect the views of the funding body. The author would also express gratitude to the creative members of Maluku Bird Walk and Halmahera Wildlife Photography for their generous assistance and support in this research. I especially dedicate this publication to Iwan Udin Tosofu, a young birder who enthusiastically introduced me to a wonderful forest area near the city of Sofifi in Halmahera, home to an extraordinarily rich array of species. He dreamt of opening a butterfly conservatorium in the area. It is with great sadness that I recently learned of his passing in Ternate.

Danishwara Nathaniel is an Indonesian scholar/practitioner who is currently completing his Ph.D at the Anthropology and Sociology department of Geneva Graduate Institute, Switzerland, where he also did his Masters' Degree as a Hans Wilsdorf Scholar. In 2020, he joined the Swiss National Science Foundation-funded research project *Images, (In)visibilities, and Work on Appearance* led by Professor Patricia Spyer as a Ph.D researcher. His dissertation project "The (Un)Makings of Spice Islands and the People with History" is an ethnography of Eastern Indonesian image-makers and cultural activists using visual media to intervene in dominant archives, redress marginalized histories, and reimagine a more equitable and sustainable future. Danishwara works at the intersection between art and anthropology, theory and practice, and is academically interested in topics ranging from environmental humanities, visual anthropology, to critical heritage studies.