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**Sustainability reconsidered:
An ethnography of natural dyeing in contemporary
Japan.**

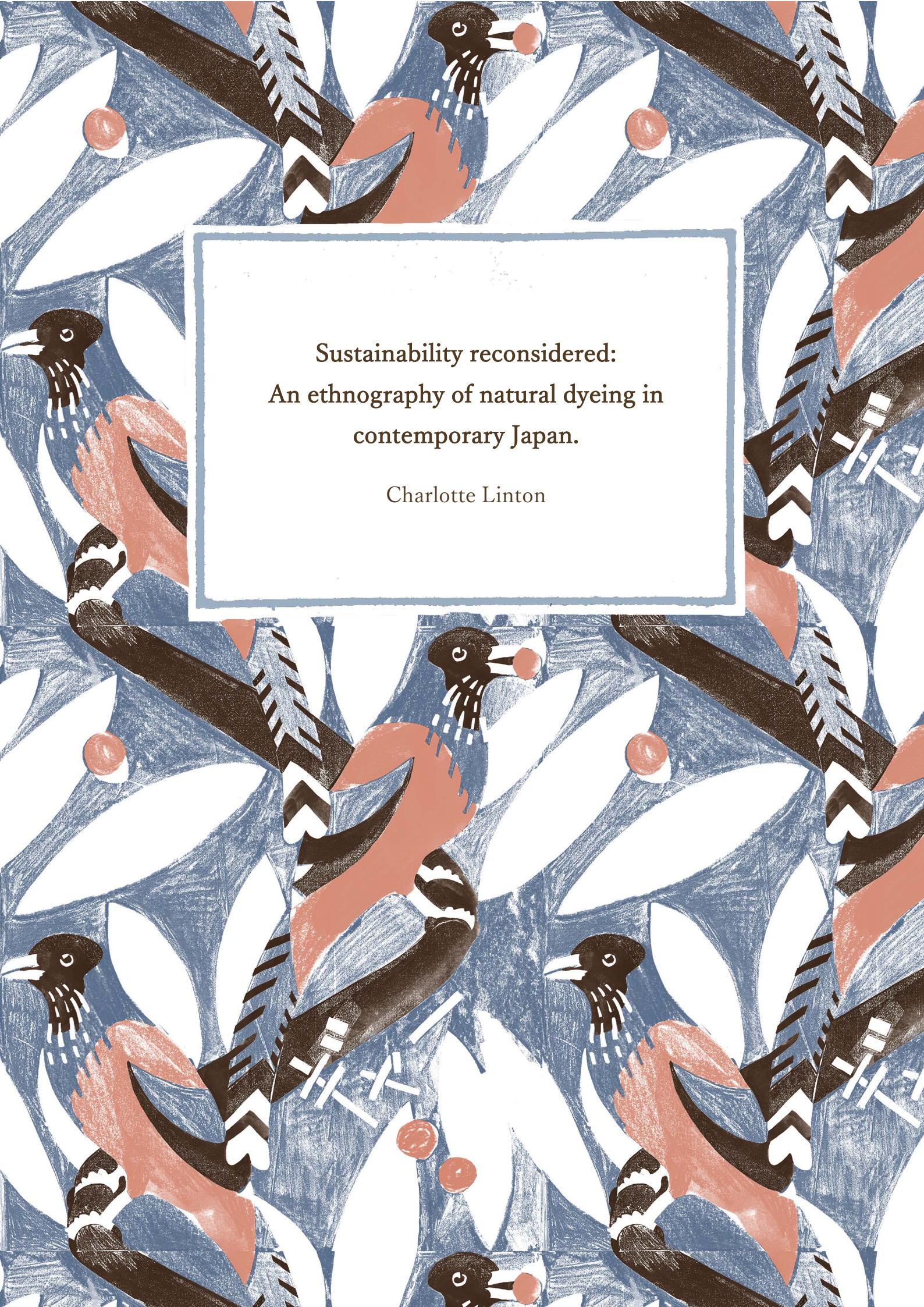
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Sustainability reconsidered:
An ethnography of natural dyeing in
contemporary Japan.

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Abstract:

Based on twelve months of fieldwork with dyeing craftspeople on the biodiverse island of Amami Ōshima in southern Japan, this thesis explores the complex, often contradictory, intertwining of preservation practices, resource extraction, and access to land that define local relationships with the natural environment. It thereby aims to question widespread discourses about sustainability that assume that small scale ‘traditional’ craft is low impact and therefore more environmentally sustainable. Using apprenticeship methodologies, I reveal that Amamian craft producers are subject to social, economic and bureaucratic pressures, precarities and hierarchies that have equivalences to those widespread in industrial settings. Against a backdrop of uncertainty and instability, my research participants navigate geographically specific practices of ecological care, foraging, cultivating, processing and dyeing and temporally specific experiences of labour migration and lifestyle aspiration. By focusing on their dynamic relationship with local ecologies in order to produce (global) commodities, I was able to study sustaining processes in practice. This in turn forced me to rethink the ideology of sustainability and argue instead for a broader understanding of the extraction, life and value of materials. Value, in this formulation, is not only concentrated on the economic but distributed in ways that benefit the health of a wider conception of community, ecology and sustainability.

Acknowledgements:



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My husband, Richard, has been a constant source of support, learning and care. He encouraged and helped me to apply to study anthropology, visited me in Oxford from New York, and flew to Japan from London on numerous occasions. I thank him for our daily walks around Maxwell Park during lockdown that have given me the space to think outside of a laptop. I also thank my friends and family for their rallying words, postal care parcels, and tolerance of my distance while writing. The patience and generosity of my supervisor, Professor Inge Daniels, would be hard to beat, she read, commented, discussed and read again my writing, even on Christmas eve – thank you! Finally, I thank the funders of my studies and fieldwork: AHRC, Wolfson College, ISCA, The Pasold Research Fund, The British Association of Japanese Studies, The Folklore Society and the Great Britain Sasakawa Foundation.



Amami rabbit, アマミノクロウサギ
Pentalagus furnessi, on display at the Kasari museum.

Introduction



I remember one American girl [at college], she was publicly speaking [out] about [sustainability] ... Then the financial crisis happened, and for me personally there were many things happening, and then at the end, the nuclear disaster happened ... and also the Dhaka building collapsed in Bangladesh, I think that was huge ... and you started to realise ‘ok this is really messed up’. I couldn't really believe it – what kind of world are we living in? Maybe we need to focus on better things. But then I’m not going to become a volunteer, ditching everything I’ve studied. So I try to at least maintain what I find, where good happens in my own industry. That’s how it started.

Koki, 33-years-old

I met Koki around three months into my fieldwork. He had visited Kanai Kougei, a traditional *dorozome* (mud-dyeing) workshop on the Ryūkyū island of Amami Ōshima in southern Japan where I was working, to introduce himself to the workshop’s founder Kazuhito Kanai. Widely known as *Shachō* – a word meaning ‘company president’ that might more colloquially translate as ‘boss’ – Kanai-san (pictured above) established Kanai Kougei in 1982. Koki had been sent to meet the *Shachō* by Maeda-san, the owner of one of the few remaining weaving companies on

the island, where Koki was learning about the production of the local Amamian kimono cloth *Oshima tsumugi*. In his crisp white t-shirt and black jeans, Koki's Tokyo style stood in contrast to the workshop's staff in our *boro boro* (tattered) dyeing overalls. In conversation, Koki and I quickly discovered that we had studied at the same fashion school in London only a few years apart.

Interviewing Koki a couple of weeks later, we discussed our shared interest in eco-friendly fashion and tried to establish when it was that we became aware of a discourse around 'sustainability' within the fashion industry. Koki emphasised that this awareness, that begun while we were studying between 2002 and 2011, was a slow creep that grew steadily with a string of financial, environmental, and human rights disasters, forming a persistent anxiety that eventually prompted him to relocate to Amami to pursue a career in traditional craft. Sustainability, a concept that developed from the term 'sustained yields' used in 17th and 18th century German forestry, suggests that resource extraction should also account for natural regeneration to avoid resource depletion (Purvis et al. 2019:682). The term was little used until it was adopted by environmentalists in the 1970s when scientists became increasingly concerned about overpopulation and overconsumption exceeding the earth's capacity to regenerate (ibid). It was around the turn of millennium, however, that intergovernmental organisations such as the UN and IUCN developed the three 'pillars' of sustainability – the interconnecting spheres of the environment, society and the economy – also committing to sustainable development initiatives in economically deprived regions (ibid:685). This slow rise in public awareness from academia to public policy and its eventual dissemination in the media, accumulated in a social imaginary that began to influence individual behaviours in both consumption practices and working environments. The emergence of sustainability discourse in the fashion and textile industries was evident for Koki and I in the use by fellow students of organic cotton, hemp and bamboo cloth, natural fibres that, at the time, were considered better for the environment. Yet the limits of the discourse were also apparent in fashion student's continued indulgence of fast-fashion from British high street stores such as Topshop, Primark, and H&M. Although the three pillars of sustainability are considered as entwined, at least within the London fashion world of the 2000s that Koki and I moved within, a supposedly ethical response fell on innovation with natural materials, rather than questions of how overconsumption and low prices relied on exploited labour and social inequity.

It was for such high street stores that low-wage workers were making garments at the Rana Plaza factory in Dhaka, Bangladesh at the time of the April 2013 disaster, in which at least 1,132 people died. Survivors reported that the day before the disaster they had heard the factory creak and cracks had begun to appear in the building's walls. Despite raising concerns, 2000 people were sent in to work and at around 9am the building collapsed in just 90 seconds. The collapse was subsequently labelled a 'mass industrial homicide'.¹ This was a landmark moment for the fashion and textile industry and highlighted the terrible working conditions in many producing regions, opening the eyes and ears of brands and their consumers to the real costs of low clothing prices.²



In Savar, Bangladesh, site of April's factory disaster, untreated factory wastewater is common. Khaled Hasan for The New York Times

Three months after the accident in Dhaka, *The New York Times* published 'Bangladesh Pollution, Told in Colors and Smells'.³ The article and photo-essay investigated water pollution in Savar – the area of Dhaka where Rana Plaza was located – caused by local factories producing pharmaceuticals and leather, but most significantly textiles and garments. Journalist Jim Yardley reported that many factories were dumping untreated industrial wastewater into the canals polluting

¹ Safi, Michael and Dominic Rushe. 'Rana Plaza, Five Years on: Safety of Workers Hangs in Balance in Bangladesh.' *The Guardian*, 24 April 2018.

² Although the 'fashion' and 'textile' industries are two distinct entities, I use them interchangeably in this thesis since their dependence makes them difficult to prise apart.

³ Yardley, Jim. 'Bangladesh Pollution, Told in Colors and Smells'. *The New York Times*, 14 July 2013.

paddies, killing fish, and damaging fruit and vegetable production. The canal's water – whose colour Yardley stated changed according to fashion tastes of the time – was so contaminated that the smell and fumes were causing headaches, vomiting and fainting in the children whose school it backed onto. Most of the children's parents were working in the polluting factories – some had died in the Rana Plaza collapse. Yardley's investigation highlighted that the pollution of the area was continuing, despite public outcry against the collusion between the powerful political and economic agents who were ignoring industrial regulations at such an extreme cost to local communities and the environment.

The New York Times article is perhaps representative of the rising awareness among the public and media of the meeting point apparent in mass textile production between exploitative labour practices and the extensive impact of environmental damage. But it also failed to elaborate on the effects felt within the wider ecosystems that constitute the environment in Dhaka. This is perhaps due to the absence of any visible wildlife to have survived the industrial onslaught; as of 2019, the Bangladeshi government declared three rivers in the Dhaka region 'biologically dead'.⁴ The deeply interwoven social and environmental impacts of the global clothing industry – an industry now infamous for its deliberate choice of production locations where regulatory measures are weak in order to reduce costs (Niinimäki et al 2020:194) – reach beyond Bangladesh. As the world's leading clothing exporter, China's textile industry has also been subject to frequent accusations of environmental pollution and human rights abuse.⁵ The Ellen MacArthur Foundation, established to support the implementation of circular economies in 2010, state that the fashion and textile industry are responsible for 20% of industrial water pollution globally (2017) while Bluesign, a sustainable solutions management firm, claim 25% of worldwide chemical production is used in textile manufacture (2007). The intensive use of chemicals in industrial dyeing processes is particularly implicated in these statistics, but the production of textiles spans from plant cultivation, raw fibre extraction, to yarn and garment production and all of the finishing processes in between, each taking its toll on local resources.

⁴ Chowdhury, Tanvir. 'Bangladesh's Garment Factories Pollute Rivers'. *Aljazeera*. 1 July 2019.

⁵ See recent reports on the use of coerced labour of ethnic minorities to pick 84% of China's and 20% of the world's cotton harvest. Davison, Helen. 'Xinjiang: More than Half a Million Forced to Pick Cotton, Report Suggests'. *The Guardian*. 15 December 2020.

This research is pressing as in recent years the unprecedented threat of climate change and ecosystem degradation has advanced calls for environmental sustainability. The fashion and textile industry are estimated to be responsible for 10% of global CO₂ emissions (only second to aviation), 35% of microplastic pollution, while 92 million tonnes of global textiles are disposed of annually (Niinimäki et al 2020:189). The debate has thus moved from an emphasis on human rights that occurred after the Rana Plaza disaster in 2013 to one that also considers the rights of other species, inanimate objects and landscape elements, recognising that issues arising from unethical consumption are not mutually exclusive. In a report written for the Clean Clothes Campaign, a global network that aims to improve working conditions in garment and sportswear manufacturing, Kelly et al. 2019 document how auditing and compliance has swelled into a multi-million-dollar industry. Corporate Social Responsibility (CSR) policies managed in-house or outsourced are designed to ensure that suppliers and contractors meet social and environmental obligations. Yet the report's authors show that these policies are motivated by the mitigation of reputational risk rather than a desire to protect workers or environments.

Many designers and brands, however, particularly in advanced capitalist economies of the Global North, are looking to quell environmental anxieties more publicly. Outdoor clothing brand Patagonia's sustainability initiatives via product recycling, landscape conservation and materials innovation are world renowned.⁶ The Kering group, owners of Gucci, became 'luxury's activist' in 2015 by publishing their environmental impact and as of 2020 released a 'Biodiversity strategy' to restore and regenerate habitats, while committing to halving their greenhouse gas emissions by 2025.⁷ Even H&M has brought sustainability to the masses through its 'Conscious Collection' featuring garments made from recycled materials.⁸

However, anthropologists have shown that this form of ethical consumption is not without its problems, and sustainable fashion can be seen within this lineage. 'Emotional branding' (Trentmann 2007:1083) that promotes reciprocity and global solidarity has been used to 'mobilise political traditions and value systems that favour

⁶ See partnership with Bolt Threads, producers of synthetic spider silk yarn (Ginsberg and Chiezza 2018:7).

⁷ Friedman, Vanessa. 'Kering Becomes Luxury's Activist'. *The New York Times*, 20 May 2015. <https://www.kering.com/en/sustainability/safeguarding-the-planet/biodiversity-strategy/>

⁸ Ringstrom, Anna. 'H&M Banks on a Fashion-Conscious Fashion Conscience'. *Reuters*, 24 June 2015.

certain identities and relationships' for decades (ibid:1086). This inequality has been demonstrated by Shalia Seshia Galvin (2018) whose study of organic rice cultivation in India shows how the Global North set criteria demanded of producers that are not always suited to local realities. Her participant farmers struggled to adhere to the global bureaucracy that organic certification required, straining local social and economic relations between farmers and organic inspectors. This demonstrates the difficulty of translating small-scale, responsible production to global commercial markets with long supply chains embedded in the market economy.⁹ Despite often being established in good faith, ethical consumption is based on an ideal that 'performs morality' (Galvin 2018) i.e. by purchasing organic rice one appears to be doing good, while offsetting anxiety about the conditions of its cultivation. This situation is found in fashion too where 'drop-in replacements' of sustainable materials 'serve to make us feel better about our polluting lifestyles' (Ginsberg and Chieza 2018:7). However, this action does not necessarily lead the consumer to educate themselves on the social, political or economic inequalities faced by producers, or grasp the extent of local and global environmental pollution that might lead to their own behavioural changes. Rather, it might be said to replicate the same capitalist systems responsible for social and ecological damage in the first place.

While work that has been carried out by governments, NGOs, academics and corporate giants around the three pillars of sustainability is in many respects important and necessary, and I respectfully acknowledge those individuals who tirelessly campaign for more ethically produced commodities, my work follows a different path driven by a contrasting logic of scale. Sustainability, as an interconnected set of practices and rhetorics, necessarily functions at a scale that is global and universalising. This ideology has become widespread in broad public discourse and can also be seen to be disseminated through local communities, yet its rhetorical influence is all too often focused on ends-oriented change. While the impact of sustainability discourse can be seen on both individual and systemic behaviours, such shifts are often at the level of singular actions with definitive goals – such as the reduction in plastic bag use – rather than ongoing, adaptive change. The fashion and textiles industries are a prime example, since despite best efforts to improve material components, labour conditions, environmental impact or carbon outputs the mission is always flawed since commerce cannot function without the

⁹ See also Oakley 2015 for a discussion of Fairtrade gold.

expectation of profit that is difficult to achieve within such confines. Problems lie between discourse and practice, but also in what is realistic within the limits of existing frameworks, demonstrating that ‘sustainability’ is just another ideology detached from lived experience. Anthropologist Kedron Thomas (2020) demonstrates this well in her study with designers and business managers in small to large scale fashion companies in the US and UK. While individuals were passionate about sustainability, Thomas identified implicit contradictions between sustainability, growth and the extractive tendencies of the fashion industry (ibid:733). She highlights, for instance, how sustainable goals require long-term vision, but individuals are constrained by short-term profit and performance objectives (ibid:727). These over-riding objectives necessitate the partial, rather than the integrated and ongoing address of the triple ills of exploitative labour, environmental damage, and economic pressure that have been foregrounded in the fashion industry’s reliance on production in Bangladesh, China, and other countries that have undergone rapid industrialisation in the past 200 years. Rather than reproduce a closed loop of discourse centred on sustainability vs resource extraction at such an intractable scale, the aim of this thesis is to place a more nuanced dynamic between the natural environment and cultural, material and economic resource extraction at the heart of a discourse around textile production.

The importance given in this thesis to addressing small-scale traditional craft environments does not lie in any romanticising sense of their exceptionality or outsider status. Rather, such environments have become entwined in the sustainability policies of global corporations. Companies, from clothing to food and homewares, are increasingly turning to objects and techniques of local traditional craft that, on the surface, appear to be a silver bullet. See for example, UK womenswear label Toast and the language that they use around indigo, or any number of designer brands – Dries Van Noten, Dior, Chanel – who commission embroidery and beading in India.¹⁰ Using ‘craft’ in the abstract, promotional literature references slow production; natural, biodegradable materials; handmade quality; and associations with localism, community and sustainability. By extracting this value, outside businesses are able to frame themselves as *preservers* of culture

¹⁰ ‘Indigo’ <https://www.toa.st/uk/content/stories/making-of-indigo.htm>.

Kazmin, Amy. ‘India Gets Upfront in Designers’ Minds’. *The Financial Times*, 24 September 2012

and custodians of the natural environment encouraging their consumers to ‘care at a distance’ (Trentmann 2007).

In contrast, my decision to research small scale ‘traditional’ craft processes, through my case study of natural textile dyeing in Japan, is driven by the argument that such sites are not hangovers from a pre-industrial era, but important registers of contemporary developments around how natural resources are valued, used and sustained by communities in everyday, lived experience. On the surface, these sites do not appear so prone to the profit-driven standardisations of global textile commerce, but at the ground level they offer an entrance for the ethnographer from where one can understand these evolving forces, as they tangibly impact on people, processes and ecosystems. From this perspective one may begin to disentangle what I argue is a complex, geographically specific intertwining of nature, cultural practice and the economy, spanning several timeframes, that unfolds while using local materials and resources during the production of traditional craft.

This research aligns in some respects with more recent industry developments that see local textile producers as a part of ‘bioregional fashion ecosystems’, where producers of fibres, materials, dyestuffs and garments are engaged in short, local supply chains that encourage regenerative agriculture, waste reduction and soil restoration (Biomimicry Institute 2020).¹¹ These movements on the whole have not grown out of existing textile industry foundations, rather they have stemmed from amateur producers building material and economic connections within their immediate environments. Little anthropological research has been undertaken on these movements, while, as Thomas’s study highlights, significant gaps in knowledge and awareness exists among design professionals and consumers of the conditions under which clothing is made and the challenges producers face (2019:736). Ethnography therefore allows one to ask what a study at the meso-scale of an ecology of production might contribute to larger discussions about resource extraction and sustainability, as opposed to the reverse. I ask whether traditional crafting communities are equipped to translate their (low impact) products and processes for

¹¹This is perhaps most prominent in the work of US-based non-profit organisation Fibershed, who brought together networks of producers in California, creating a movement that spread across the US, and who now have affiliate networks in the UK (see Norris 2019), Denmark, India and Australia. <https://fibershed.org/about/> Accessed:31.3.21

contemporary commodity markets, meeting the quality, quantity, costs and product longevity demanded by the market, while maintaining their commitment to the integrity of their work and without being detrimental to the health of local ecologies.

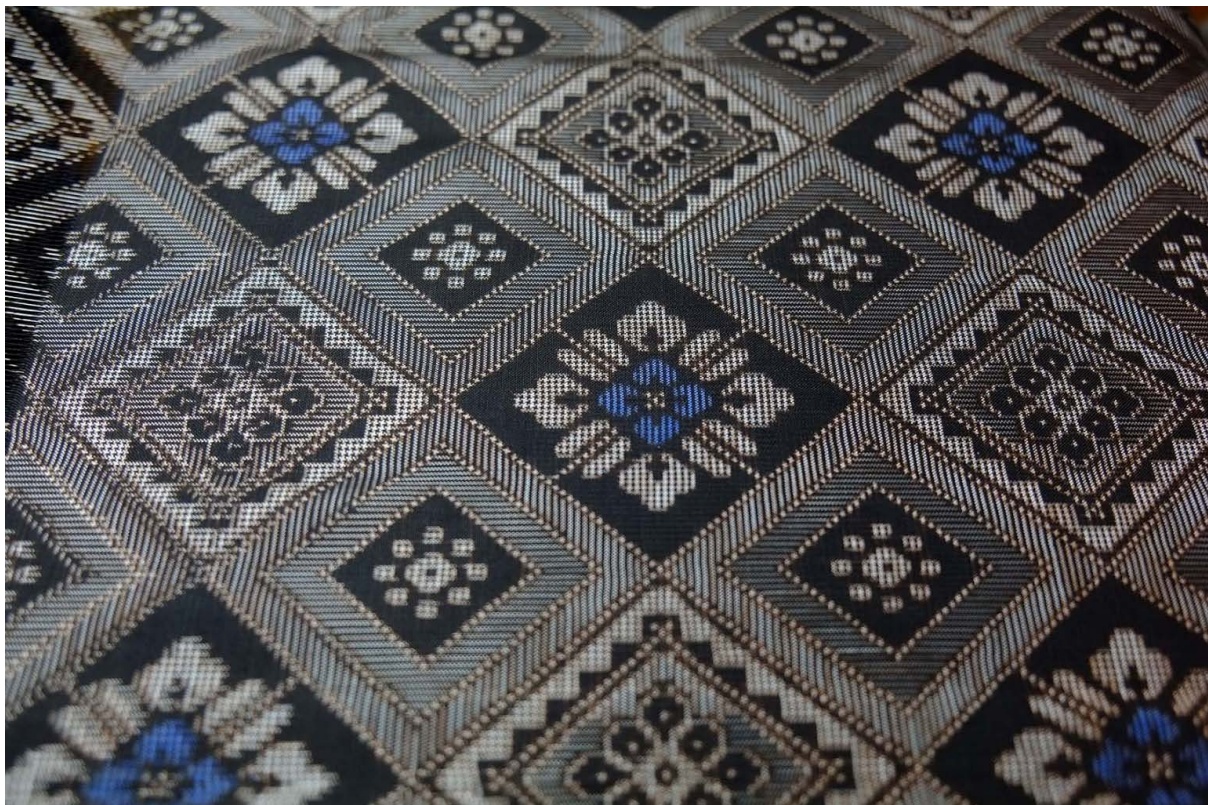


Making indigo in Okinawa, July 2018

My research assesses the impact that the revival of local craft processes might have for the communities of people, plants, animals and landscape elements within ecologies of production. I aim to go beyond the rhetoric used by bureaucrats, big business, even sustainability scholars by providing ethnographic data and analysis to construct a more complex, geographically specific picture. Rather than focus on ‘sustainability’, my ethnography therefore explores *sustaining processes* – those small actions that my participants carry out on the ground in order to maintain resources, whether cultural, economic, or environmental, while being subject to pressure from local hierarchies, municipal bureaucrats or commissioning designers. Although based in the dyeing workshop of Kanai Kougei, as introduced earlier, the research moves beyond a focus on textile production to demonstrate how traditional craft can be used as an avenue to explore broader social, environmental, political and economic issues.

In the remainder of the introduction, I explain how the concerns I have presented around production and sustainability relate to my fieldsite, Amami Ōshima, exploring the dynamics that underpin the thesis. At the core of these dynamics is a tension between the promotion of resources such as craft traditions and local ecosystems for prosperity, their sustaining for perpetuity, and the ways in which related uncertainties about their future function as productive and sustaining forces. In the context of my fieldsite these dynamics combine to generate my core research question: *Can local craft processes and ecologies of production sustain a community socially, economically and environmentally? And, if so, what can we learn from such communities?*

Promoting for prosperity & sustaining for perpetuity



Since the onset of European industrialisation in the 1700s and the expansion of the market economy in the 1800s, many local textile processes have been overshadowed – or even eradicated – by mass production and the advance of petrochemicals into the natural fibre and dye industries. Previously, globally sourced organic materials were used to colour the world’s cloth, but by 1856 synthetic dyes provided more

economically efficient, stable and vibrant colours.¹² Despite a contraction of the handcrafted textile market, there remains in many societies a continuation of traditions that are generations in the making. This is the situation in Japan, where regionally-specific textiles, although reduced in output, have proved relatively resilient in the face of industrialisation. A combination of government cultural preservation measures, the willingness of craftspeople to adapt to new materials and technologies, but also their importance as visual cues for national identity has meant the country's textile traditions are held in high regard. What also makes Japan an exemplary fieldsite is the fact that industrialisation is relatively recent. Occurring predominantly within the last century, it accelerated after the Second World War (hereafter WW2) as foreign investment and government grants changed the physical landscape while spurring mass urban migration. By 1968, Japan was the world's second largest economy (Kanatsu 2013:285), but the speed of industrialisation brought widespread and damaging social and environmental change that continues to resonate throughout local communities (see Chapter 3).¹³ This damage has been far reaching, with little land left untouched by industrial or infrastructural projects; 50% of Japan's coastline, for example, has been altered by concrete. This condensed timeframe is helpful to the ethnographer since the material remnants of the boom (and bust) periods can be located geographically or drawn from the memories of fieldwork participants. This assists one in quantifying both the micro and macro effects of industrial capitalism and globalisation on local communities, but also local ecosystems.

My fieldwork centres on the textile dyeing workshop of Kanai Kougei and its craftspeople, located on the small but immensely biodiverse island of Amami Ōshima, the largest of eight landmasses that form the Amami Islands with an area of 712.35km² and a population of around 63,500 people.¹⁴ Being a stop on the historic trading routes between mainland Japan, the former Okinawan Ryūkyū kingdom, Taiwan and China, culturally it borrows from these dominant forces.¹⁵ Yet as an island it developed its own social and cultural practices: examples include a music

¹² It must be noted that mass production using natural dyes was still highly polluting and used exploitative labour. See Scotland's 19th century Turkey Red industry (Nenadic and Tuckett 2013).

¹³ The No.2 economic spot was taken by China in 2010.

¹⁴ Population figures gathered from the five Amamian district websites.

¹⁵ Previously part of Okinawa's Ryūkyū kingdom, Amami is today bureaucratically attached to Kagoshima Prefecture.



genre called *shima-uta*, a form of religious practice led by female priestesses known as *Noro* and *Yuta*, its own variant of the Japanese language (*shimayumuta*) and its own kimono cloth – *Oshima tsumugi*. By working on an island I essentially ‘bounded’ my fieldsite (Candea 2007:181). Yet, rather than treating Amami as a ‘holistic entity to be explained’, the island presented a ‘window onto complexity’ (ibid) so that I might explore pressing environmental, social and political issues at the national, and to some extent global, scale. The suitability of my fieldsite is also demonstrated by the fact that debates around craft preservation and environmental conservation are part

of local discourses that have become especially prevalent since the turn of the millennium.

Like many of Japan's traditional crafts *Oshima tsumugi* (pictured above), a complex and luxurious silk textile whose yarn is dyed using the *dorozome* (mud-dyeing) technique, has faced significant economic difficulties since Japan's economic downturn in the 1990s, leaving a once booming industry in a precarious position. This means it is likely to become a *Mukei Bunkazai* (Intangible Cultural Property/ICP), part of a world-renowned Japanese government scheme that provides infrastructural and financial support to protect the skills of Japanese arts, crafts, natural monuments, even rare species, such as Amami's black rabbit. While this scheme is good for Japan, promoting a strong national identity that has been deployed as a form of soft power globally, it is not without problems and has in some ways proved unpopular with craftspeople – including in Amami.¹⁶ At the same time, Amami's virgin forest, mangrove forests and coral reefs are home to thousands of rare species of flora and fauna, which prompted UNESCO in 2003 to consider it an area of 'Outstanding Universal Value' making it a 'major focus' for conservation.¹⁷ As a result, Amami together with Tokunoshima and northern Okinawa, were in 2016 registered as a tentative UNESCO World Natural Heritage (WNH) site by the Japanese government.

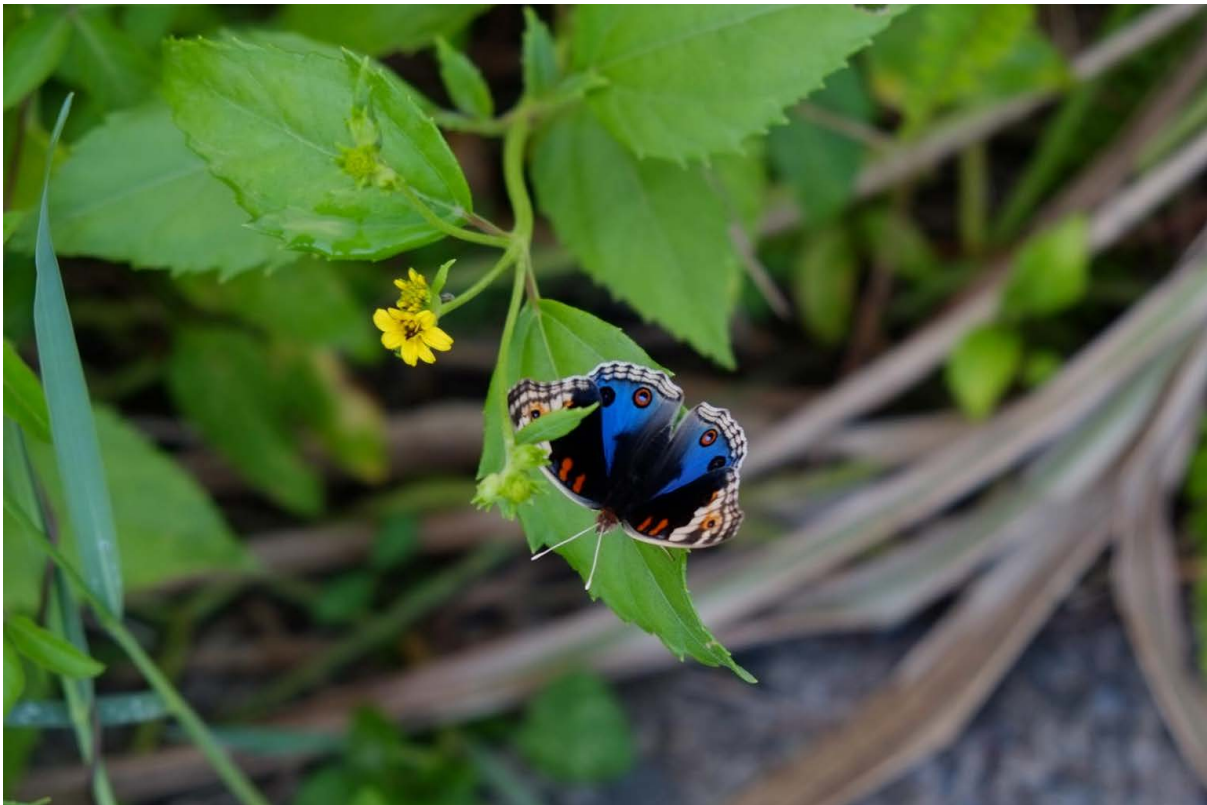
Both ICP and WNH are schemes that make global appeals to protect the unique properties of nation states with aims to *sustain* the 'local' for perpetuity, but also *promote* them for prosperity. Although organisations such as UNESCO claim their primary aim is conservation, the Japanese government has been open about how WNH can boost tourism¹⁸ – and from my observations in Amami, the desire to produce revenue (by business and the local authorities) appeared to be the motivating force behind the application, while wildlife protection was a bonus. Japan has experience of promoting its cultural properties as draws for domestic and international tourism using the rhetoric of preservation. By demarking the intangible

¹⁶ ICP has been replicated by UNESCO where it is called Intangible Cultural Heritage

¹⁷ UNESCO. n.d. 'Amami-Oshima Island, Tokunoshima Island, the Northern Part of Okinawa Island and Iriomote Island'. UNESCO World Heritage Centre. Accessed:7.11.17.
<http://whc.unesco.org/en/tentativelists/6160/>.

¹⁸ Brasor, Philip. 'Of Cats and Rabbits: UNESCO World Heritage Candidate Caught in a Bind over Tourism Drive'. *The Japan Times*, 14 September 2019.

– unique skills, natural landscapes, rare species – as forms of property, the government are able to impose a level of control, appropriate and repackage them to increase their economic potential under the guise of conservation/preservation. This has been particularly relevant for Japan’s depopulated, economically depressed rural regions that have for decades been propped up by the state, but play host to ‘traditional’ Japan, through local crafts, landscapes, nature, foodstuffs and festivals with high economic potential if managed well.



These rural regions are areas where land has little value as property, with its value in decline across Japan since 1992. Although urban land prices recently began to recover in response to the rise in international tourism, they have continued to decline in rural locales where depopulation has led to the closure of local facilities – schools and hospitals – and the uptake of farming remains low.¹⁹ The role that the ICP scheme plays in rural areas is perhaps an ultimate outgrowth of Japan’s adoption of a western capitalist economic model after the Meiji Restoration (around 1868), and its simultaneous strengthening of national cultural identity as a resistance to Western colonising forces. Within this logic, state intervention to preserve cultural identity –

¹⁹ KYODO. ‘Average Land Price in Japan Posts First Rise in 27 Years on Back of Tourism Boom’. *The Japan Times*, 18 September 2018.

located for example in a textile or an environment – is based on the cultural ‘property’s’ ability to cohere value, and by extension to be economically productive locally while also performing in international commodity markets (see Aso 2014). I argue that Amami’s cultural and natural properties continue to be exploited by an ‘ideology of improvement’ (Bhandar 2018:8), making them subject to appropriation by the government and the market as assets. This ideology, whose origins can be found in agricultural land ‘improvement’ of the European Enlightenment period, justifies the ownership and adaptation of the natural environment so it may be ‘put to profit’ (Drayton 2000:52). Legal scholar Brenna Bhandhar’s work in exploring the role of this ideology in settler colonial narratives shows how existing communities living on the land become bound up within the logic of improvement: ‘communities who lived as rational, productive economic actors, evidenced by particular forms of cultivation, were deemed to be proper subjects of law and history; those who did not were deemed to be in need of improvement as much as their waste lands were’ (2018:8). Human and cultural capital is here intertwined with both the use and exchange value of land – outside of this framework, there is just waste. If imperial Japan’s 19th Century resistance to Western colonialism led to the adoption of capitalism’s imperative to improve and make profitable both land and its occupants, the tendency for the state to internally claim both the natural environment and the cultural production of its citizens ‘for the nation’ is deeply tied to such an economic logic. One therefore needs to ask, how can economic thinking and the preservation of natural and cultural properties co-exist without such extractive (and therefore ultimately corrosive) conditions?

The ICP and WNH schemes only form an imminent part of the backdrop of my study as firstly, ICP recognition has not been granted to *Oshima tsumugi*, rather it is a much-discussed possible future (which I elaborate on in Chapter 1). Secondly, while the authorities at the municipal, prefecture and state level have been working hard to obtain WNH recognition, as of 2018 the application was put on hold. Consequently, these schemes, while part of local discourse, remain fairly abstract.

At Kanai Kougei craftspeople continue to participate in and support the production of *Oshima tsumugi*, but what makes the workshop of particular interest is that it joins a growing number of companies across Japan offering their own products and services direct to customers, meaning that *kusakizome* (dyeing with plant and tree materials)



is available as a technique for hire. In line with growing interest in traditional, ‘eco-friendly’ techniques, designers and brands of fashion and homewares are commissioning the dyeing of textiles in geographic areas recognized for their local industries. These narrators from outside of the community reference historically important materials and processes, and their strong links with local culture and nature which emanate from the site of production. However, by reviving *kusakizome* the craftspeople at Kanai Kougei are engaging with global environmental issues and the preservation of Japan’s traditional craft techniques on their own terms, terms that reflect the needs of their community. They are initiating processes that they hope will sustain the industry (and potentially the natural environment) by better understanding local resources and promoting their work through local and global social networks that sustain their business. Much of my thesis revolves around negotiating these terms particularly between an old and new generation of craftspeople as they debate the tension between the need to innovate to stay economically viable and the desire to preserve, a desire that can so easily become reduced to the ideology of sustainability. Consequently, my study will ascertain how materials, processes and humans interact on the ground with other ecosystem elements during craft production, a happening that requires constant correspondence with local conditions. I will focus on a grassroots approach to sustaining craft

processes and the natural environment that reflects lived reality rather than the ideal of sustainability.

My research therefore moves beyond a study of people who dye and their dyeing materials to show the diversity of species interaction with the craft process. This specificity is crucial for understanding how local ecologies that are subject to resource extraction are informally subsumed into the island's economy and are then abstracted to join larger economic systems. My friend and colleague Kazuko told me on my first day working at Kanai Kougei that 'in Amami, nothing is without nature'. Local fruits and vegetables grown on village allotments, endangered frogs and newts that live in the workshops drains, domesticated cats and birds, aging technologies, weather and water systems, and the *Kami* (gods) that watch over the workshop's furnace all contribute to a holistic sense of community. Interactions between species and other beings have always played a role in classic ethnographies. E.E. Evans-Pritchard's ethnography about the Nuer (1940) for example, documented what anthropologist Anna Tsing calls 'living-space entanglements' (2015:5), by showing how sociality, kinship, economics, politics and belief systems were intertwined with cattle and the landscapes of Southern Sudan.

I have been inspired by Tsing's approach, who consistently argues that 'stand-alone assets' (the trees or mushrooms prominent in her more recent work) should be studied within an ecosystem to disrupt what she calls 'dream alienation' – where resources become completely detached from their origins (2012:5). This allows one to focus on local networks of species and resources like water, to understand how they interact socially and culturally and connect them with global (economic) infrastructures. I also draw on methods from the anthropological sub-discipline of ethnoecology to document my findings. This approach ties into new scholarship around 'biocultural diversity', that is gaining traction in conservation circles. Lately defined by Bridgewater and Rotherham as 'a dynamic, place-based, aspect of nature arising from links and feedbacks between human and cultural diversity and biological diversity' (2019:302), *biocultural diversity* is increasingly being recognised by international bodies such as IUCN and UNESCO as an important area of focus. With this in mind, this thesis is not so much a multispecies ethnography (Kirksey and Helmreich 2010) but one that acknowledges the presence and importance of other species to our everyday lives.

Across the thesis I seek to understand how natural resources have historically been treated in Amami and across Japan for economic gain. I show how the Japanese government has consistently prioritised its economy above the life of its subjects, a habit that has also filtered down to practices performed by ordinary citizens who may choose economic efficiency over environmental responsibility. This counters the argument that the Japanese people are fundamentally ‘close to nature’, through the traditions of animism embedded in Shinto, Buddhism and Amami’s own religious culture. Consequently, I have drawn upon more locally specific conceptions of Japanese Folk Shinto guided by anthropologists John Clammer (1995; 2001) and Shoko Yoneyama, whose work has examined the potential of ‘grassroots animism’ (2017; 2019) to promote not a closeness but a ‘connectedness to nature’ – and encourage responsible, environmentally conducive practice. I also consider how the global circulation of ideas has both positively and negatively influenced government rhetoric and legislation to impact local communities and ecosystems. These global movements are what anthropologist Michael Hathaway calls ‘environmental winds’ (2013:7), a metaphor coined by scientists and conservationists based in Yunnan province, China, where *winds* ‘describe times when political movements brought life-changing consequences’ (ibid:3). Hathaway’s fieldwork shows how local scientists have adopted Western environmentalism but this also brings global ideas ‘into being’, transforming them ‘into something quite different from their origins’ (ibid). This demonstrates a two-way knowledge exchange, showing how global ideas, if they are to take root, must be adapted to local contexts.

Uncertainty as a catalyst for change

As I write this introduction, the world is facing the consequences of the COVID-19 pandemic, amplifying how uncertainty about the future reaches across and effects communities globally. Feelings of uncertainty hover precariously throughout my ethnography, but I argue that they are also present at a level that transcends the individual or the community, tied to the sense of a universalizing drive to *sustain* various aspects of nature, society and culture through their harnessing as generators of capital. Bhandar after Cedric J Robinson explains that ‘racial representations of pre-existing cultural forms...and capitalist infrastructure’ are produced in times of ‘uncertainty and flux’ (2018:15). Although this statement relates to the fact that violent racial regimes become more entrenched in times of uncertainty – through the

rise of nationalism, the dispossession of indigenous peoples and the strengthening of borders for example – governments and communities also draw on difference and appropriate it for identity building in periods of economic, social, political and environmental flux. Scholars of Japan have shown how historical culture – from landscapes, to rituals, to craft – have been monetised in periods of uncertainty (Robertson 1991; Brandt 2007; Aso 2014). I engage with this literature throughout my study especially as I explicate the rise and fall of the *Oshima tsumugi* industry after WW2. But what I am also able to show is that culturally valuable *kusakizome* is being promoted as a sustainable fix to environmentally damaging mass production. In this new configuration the resourcefulness of rural societies, those that were left behind by economic progress, are now being turned to for answers in times of uncertainty.

Uncertainty is often seen socially as a negative phenomenon that has increased with the rapid and mutable nature of modernity. But if it is understood as part of everyday lived encounters, as it is for my participants in Amami, it may provide opportunities for reflection and positive action. My fieldwork consistently demonstrates how uncertainty about the future can be seen as a catalyst for change, since it allows one to become aware of and confront dominant structural systems that may have previously seemed monolithic. Although Amami has been subject to the ‘ideology of improvement’, with its land, people, nature and traditions exploited for capitalist gain over the centuries, Amamians have consistently shown that they are both literally and metaphorically able to weather a storm. The function of uncertainty as a productive and sustaining force can be traced back through Amamian history, particularly in the way it has been embedded in nature and spirituality. As American anthropologist Douglas Haring puts it:

Educated Amamians often asked me ... “How does science explain the obvious facts of witchcraft and death by magical cursing?” “How does one explain the frequent disappearances of villagers seduced by tree-spirits?” Personally I invoked the *habu* (vipers) and other poisonous snakes to explain disappearances, but this reasoning left hearers cold...No one could believe that I took no stock in witches and black magic; they reasoned that my ignorance required protection (1952:70.)

Haring was dispatched to Amami for 6 months between 1951-2 at the behest of the occupying US Allied Forces. His report, published by the allies and held in a select

few archives, holds invaluable ethnographic data that captures a moment in Amamian history that I reference frequently. The excerpt above is especially poignant because it captures a feeling of doubt that is difficult to locate, one that can be found throughout my thesis. Although Haring (whom I have inferred was a devote Christian) ‘invoked the *habu*’ to explain disappearances, doubt is also embedded in his answer – after all, how would he know?

Amami’s indigenous religion has been compared with Japanese Folk Shinto (Haring 1952), that centres around spirits or *kami* that reside in nature. It was led by a powerful theocracy of female priestesses called the *Noro* and *Yuta*, who followed orders from Okinawa’s Ryūkyū kingdom. Although Amami was claimed by the Shimazus, the powerful clan of Satsuma (modern day Kagoshima Prefecture) in 1609, the spiritual authority of the *Noro* and *Yuta* remained. This meant that entering certain forests or wantonly logging trees in Amami’s sacred mountains was prohibited, with the population fearing retribution from forest dwelling *kami* or coming face-to-face with local *yōkai* (mythical creatures). Today the wrath of the spiritual world has been largely replaced by the threat of retribution from local environmental authorities who have become more stringent about the use of the forest in preparation for WNH assessment. Nevertheless, anxieties of the past and of the present collide in the forest, meaning one is more likely to see guided tourists on rough mountain roads in 4x4’s pausing to photograph rare butterflies than local residents. In addition, the forests continue to be home to those same deadly *habu* that elevate the threat level of entering safely. Before the availability and effective delivery of antivenom, snake bites accounted for 11% (figures for 1898-1903) of Amami’s fatalities, whereas today they account for only 1% (White and Meier 2017). Whenever I would plan a hike I was told *abunai-ne!* (*dangerous*), and advised not to go into the forest alone but to hire a guide. Uncertainty, whether caused by *Kami*, the authorities, or snakes, has therefore acted to sustain Amami’s forests.



Sign with red squiggle (snake) reads: *habu ni – Chūi! - tatsu se shou PTA* (Beware of habu! Elementary School PTA.)

While historical threats to life and livelihood have been natural or supernatural, concerned with snake bites, typhoons, fire, war or even black magic, since the post-war period Japan has increasingly been subject to man-made threats that result from industrial capitalism – those that are somehow more unpredictable. These threats initially appeared place-specific but advanced telecommunications and media networks have created an impression that emerging themes might be shared globally. Anxieties about one's career, the availability of work, the future of local crafts, one's standing in the community, national security, the health of local ecosystems, consequences of chemical use, the quality of the drinking water, threat to property by damaging weather, dangerous Particulate Matter 2.5 blowing in from China, access to sufficient child care, the safety of food stuffs – these *many* concerns seemed all too familiar.

As members of what sociologist Ulrich Beck calls 'World-risk society' – a state that encapsulates risk that goes beyond geographic boundaries – (Beck 1999 in Yoneyama 2019) Japan's citizens have been subject to economic instability, the breakdown of social norms and environmental destruction in the pursuit of economic growth. What

became apparent through an analysis of my ethnographic data was that the spirits of the past, who I argue continue to grace everyday life in Amami, have been joined by what anthropologist Nils Bubandt calls ‘secular spirits of the Anthropocene’: those unknowns that ‘ask us to notice the magic of the forces, human and nonhuman, that shape the atmosphere, biosphere, and lithosphere’ (2017:G137).²⁰ Bubandt uses the example of a vast mud volcano that erupted in East Java swallowing twelve villages and displacing almost 40,000 people (ibid:G121). The volcano’s eruption is thought to have been triggered by nearby oil drilling, although it was also attributed in some quarters to an earthquake. Bubandt explains that it is becoming increasingly difficult to ‘[distinguish] human from nonhuman forces’ (ibid:G122) since human impact on geology can have as great an impact as a natural earthquake. This was the case in Japan during the triple disaster that began on 11th March 2011 (known hereafter as 3.11), when an undersea 9.0 magnitude earthquake struck the pacific coast off Tohoku (North East Japan) causing a tsunami with waves over 40 metres high, led to a radioactive spill at the Daiichi Nuclear Power Plant in Fukushima. Disasters of this kind are instances ‘where the forces of nature and human politics act to exacerbate each other’, combining to become uncontrollable ‘secular spirits’ (ibid:G124).

Prior to taking on the Anthropocene, Bubandt examined the idea of ‘aporia’ as an ‘analytical entrance point’ to discuss the uncertainties and doubts that arose within his study of witchcraft in Indonesia, where witches called *gua* cause ‘social terror’ (2014:35). Aporia is a complex term with a history that stretches back to Aristotle, but rose again with post-structuralist philosophy and the work of Jacques Derrida in the 1970s. Peter Geschiere helpfully summarises an aporia as: ‘a phenomenon that undermines all fixing parameters of knowledge’ (2016:244) with witchcraft being ‘aporetic’ and ‘so unsettling because it brings a confrontation with what is unknowable’ (ibid:254). Bubandt explains that aporia’s are ‘those concerns that chafe the heels of the central dilemmas of how self, sociality, and time are made and unmade’ (2014:38). They are invisible forces, ‘blind spots’ of doubt, uncertainty and anxiety that ‘grow out of and feed upon particular conceptions and practices of being’ that are ‘embedded in particular historical, political, and cultural conditions’ (ibid:38).

Bubandt’s participants are particular since their belief in witchcraft fuses with

²⁰ The ‘G’ in the 2017 Bubandt reference is part of the formatting of Tsing et al. *Arts of Living on a Damaged Planet*.

modernity, which is demonstrated so well by the mud volcano. But the ‘aporetic’ is an interesting concept since it can be applied to those instances where nature collides with modernity through politics, economics, science and technology. Satellites can predict the path of a typhoon, but the typhoon can change direction or gather strength, impacting an area in ways that residents can only imagine. Measures can be implemented to limit the damage caused by earthquakes, but one cannot control the bureaucratic failings of states who provide essential infrastructure. In the current moment, the global economy is facing the reality that it might be brought down by a coronavirus that it is thought to have originated in bats. These collisions or ‘secular spirits’ (ibid:G124) ‘[undermine] all fixing parameters of knowledge’ (Geschiere 2016:244), swerving our attempts to control or explain them through science, technology or politics. But what comes to light in moments of crisis is that the institutions we trust also construct their own realities that include an embedded element of doubt.

In sociologist John Law’s *After Method: Mess in Social Science Research* (2004), Law states that: ‘ethnography lets us see the relative messiness of practice. It looks behind the official accounts of method (which are often clean and reassuring) to try to understand the often ragged ways in which knowledge is produced in research’ (ibid:18-19). Law’s work comes from the STS tradition, so many of his examples stem from laboratories and hospitals where ‘science *produces* its realities as well as describing them’ (ibid:13). He references Latour and Woolgar (1986), who claim that ‘the tribe of scientists’, ‘are not very different from any other tribe’:

Scientists have a culture. They have beliefs. They have practices. They work, they gossip, and they worry about the future. And, somehow or other, out of their work, their practices and their beliefs, they produce knowledge, scientific knowledge, accounts of reality (2004:19).

The problem comes when different ‘tribes’ of scientists but also societies with distinct cultural practices *produce* ‘multiplicity’ – different accounts of reality – as was exemplified in Douglas Haring’s account of *habu* and tree-spirits among Amamians in the 1950s. Law turns to anthropologist Annemarie Mol whose ethnographic work draws attention to multiplicity in medical research. Law, after Mol asks: ‘if there are different realities, then lots of new questions arise. How do they relate? How do we choose between them? How should we choose between them? ... If truth by itself is

not a gold standard, then perhaps there may be additional *political* reasons for preferring and enacting one kind of reality rather than another' (ibid:13).

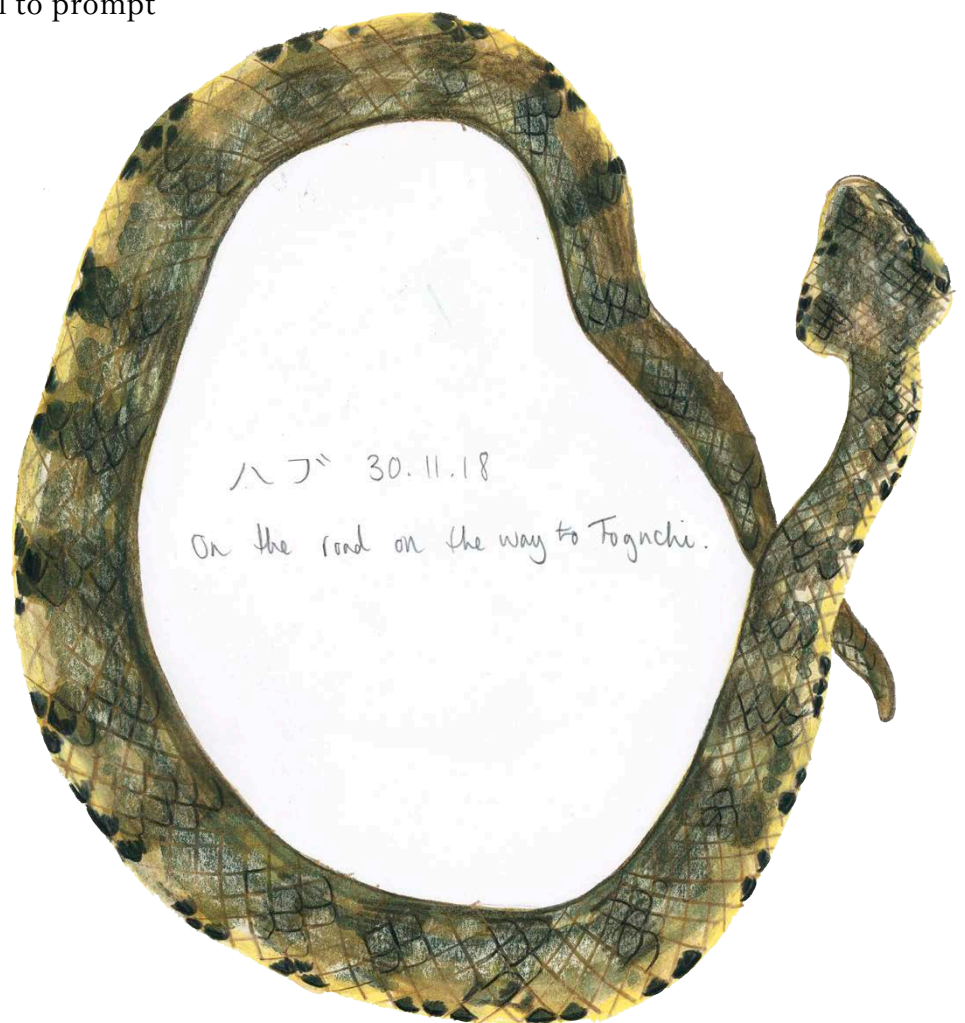
What my ethnography was able to show are the methods in which societies seek 'resolutions' (Pelkmans 2013:3) in order to come to terms with their own doubts. But also their '*political* reasons' for trusting one version of reality above another that 'energizes' (ibid:4) them into taking a particular action. This is a point that connects uncertainty with sustainability, since sustainable commodities rely on the social imaginary of uncertainty, being the 'fix' that allows uncertainty about the future to dissipate, and consumption to continue as normal. The fashion industry uses their own version of reality, in what might be seen as an ideology of improvement by identifying a threat to their economic foundation and 'putting it to profit' (Drayton 2000:52). For example, a non-Japanese menswear designer based in Tokyo who dyed his garments with Kanai Kougei had built his brand of luxury utility-wear by appropriating, to quote from his website, the 'primitive techniques' of natural dyeing that 'used as ingredients' the 'natural biology of... plants and minerals' and the slow, skilled, hand labour of the craftspeople of Amami.²¹ These references supported the designer's aims to 'not further add to the unnecessary waste and stress already produced by this industry' and construct an imagined ideal that appealed to his consumers. Yet despite these claims, he was well known (and much gossiped about) for sending garments that were difficult and extremely heavy to dye, were resource dense, sent with short turnaround demands, for not paying his invoices and then asking for discounts.

Rather than only bringing to light these contradictions, that question the ideals of those commissioning natural dyeing, ethnography teases out the 'messiness of practice' to show that fixes are not so simple and importantly, explicate the reasons why. Ethnography can also demonstrate instances where societies deal with uncertainty on their own terms without engaging in consumption practices, as it can '[catch] doubt in midair' since it 'tends to vanish with articulation' (2013:4). Although some anthropologists have focused on the negativity of 'precarity', documenting those who have become paralysed by the sense of prevailing uncertainty (see Allison 2017 for Japan), anthropologist Mathijs Pelkmans in his *Ethnography of Doubt* (2013) states that 'even in the direst situations people will find new points of

²¹ To maintain anonymity, I will not reference the designers name.

orientation and aspiration' (ibid:3). While aporia doesn't dissipate, resolutions are a way to keep anxiety at bay through an attitude, action or reformulation, a catalyst for change, or a way of seeing the opportunity that emerges from threat.

Habu are a reoccurring motif of risk in Amami, highlighting the paradox that from threat emerges opportunity. It is widely thought that in Amami, the mountains and forests would have been cleared and the land developed more widely if the number of *habu* was kept under control – evident by the many failed schemes to eradicate their numbers over the decades. But *habu* have emerged as staunch protectors of their habitat through the anxiety that they induce in humans. *Habu* have therefore inadvertently protected other species that today are deemed worthy of WNH recognition. In this reformulation, sustainability becomes an unintended consequence of anxiety about the unknown. If uncertainty forces resolutions, it also has the potential to prompt sustaining processes.



This optimistic outlook was seen again when Kanai Kougei's buildings seemed destroyed by a strong typhoon that ripped through the island in September 2018. Half of the roof had been ripped off the *dorozome* (mud-dyeing) and *aizome* (indigo-dyeing) workshops, while the doors of the sales gallery had been blown-in causing flooding. A team of friends and relatives arrived to help with the clean-up. The buildings were turned inside out, the contents washed and spread in the sun to dry. I sat with my friend Kazuko, who had moved to Amami with her family in 2015 from Tokyo to escape the threat of radiation in the wake of 3.11. We were depressed by the extent of the damage, but the Shachō was unfazed. He explained that this had happened many times before – it was part of life in Amami and when the damage is bad people gathered to help him for free. It was a chance to clean and tidy the workshop and fix anything in need of repair.

All around Toguchi village, where the workshop was based, insurance assessors wandered with clipboards. After a few days, when the electricity supply lines had been restored, the workshop was back up and running cleaner and tidier than before. Yukihiro-san, the Shachō's son, explained 'it's really hard to fix everything and go back to normal after typhoons happen. But on the other hand, all it is is a matter of time... in times like natural disasters, I can rest. It's a chance to stop, to look at your feet (*ashimotomiru*) [have time for reflection].' Kanai Kougei rarely stops production, with only a few days during the New Year's holidays that the workshop will be officially closed. Even on Sundays, Amami's day of rest, the craftspeople will often stop by for a few hours between family commitments or gardening chores. Rather than seeing the destruction caused by typhoons as negative and uncertainty as a barrier, instead they are absorbed into the everyday and used productively. The Shachō and Yukihiro-san are future thinkers, always considering better ways of doing things or cooking up new plans. The disruption caused by uncertainty is reformulated as time for reflection, to allow them to better consider how they might continue to sustain their business. What might be learnt from this permeable attitude to uncertainty? How might this creative thinking generate sustaining processes for the local economy, the health of the community, and for ecologies of production? Is it even possible to address the concerns that impact them all, or will some be prioritized over others?

Methodology

This thesis is rooted in a very specific fieldsite, yet my journey to Amami began at a suitably global scale. Prior to reading anthropology I studied fashion and textiles in London, and after working for the luxury sector in London and Paris, moved to work in New York. During my 10 years of industry experience I became increasingly conscious of how globalisation had closed the physical and cultural divide between factories in the Global South and design studios in the Global North. The demands that mass manufacturing had on the environment and labour force was sitting uncomfortably, as I watched production colleagues squeezing manufacturers to lower costs to increase the company's profit margins. Propelled by these concerns, it was in New York that my interest in global craft began to expand, taking me to MONO JAPAN, a Japanese tradeshow held in Amsterdam where I participated in a group *dorozome* workshop with Yukihiro Kanai, 38, a second-generation dyer from Kanai Kougei. Experiences in New York and Amsterdam were my initiation to a craft movement that is booming in Japan, and one that is gaining significant global attention. These pre-fieldwork encounters demonstrated that while niche and local, the natural dyeing community is an international network consisting of people keen to share knowledge, contacts and ideas.



Yukihiro Kanai running the *dorozome* workshop at MONO JAPAN, Amsterdam, February 2017.



Kazuko, Yukihiro-san and Paru-chan the cat on my first day working at Kanai Kougei.

Beyond the reputation of the University of Oxford and the appeal of being a free source of labour, my background as a designer is perhaps accountable for the access I was given and the trust handed to me from my first day at Kanai Kougei. I worked as an unpaid dyeing assistant for one year where for the first 6 months I spent 4 days per week dyeing yarns, clothing, accessories and homewares. This gradually reduced to 2 days per week in the last month of fieldwork as I prioritised more formal research techniques such as interviews and data organization. Having 7 years of practical design training obtained during a BA Fashion and MA Textiles, I had the knowledge, perception and attention to detail necessary to quickly learn *kusakizome*. My competence as a screen printer and dyer also aided with resist techniques of *katazome* (stencil dyeing) and *shibori* (tie-dyeing). As a member of the extended textile community – an ‘inside-outsider’ (Burke 1989) – I was thus able to offer my own professional proficiencies in exchange for the acquisition of insider knowledge. While this was certainly a benefit, it must be noted that prior skills and knowledge might have resulted in certain things being overlooked. Yet it is important to highlight that natural dyeing differs enough from the chemical techniques that I was trained in that I still came to the workshop with a relatively fresh pair of eyes. My ability to acquire and use practical skills took priority over verbal communication, while learning-while-doing improved my Japanese and formed a constructive methodological ground. Before leaving for Japan I had studied Japanese to a conversational level for one-year. Although English was common given the international education and experiences of my fieldwork participants who were happy to translate, a basic level of Japanese was required for taking instruction at the workshop, communicating with visitors and getting by in daily life.

Being embedded in this work environment where sociality is highly valued, I built strong relationships with my work colleagues, the Kanai family, and their business and friendship groups. Like anthropologist Julie Valk, I have used slightly ‘unorthodox naming choices’ (2018:59) when I describe the people who have made this thesis possible. In Japan names are conservatively written as surname plus first name, and in dialogue or thereafter in text using either first name or surname with the honorific -san. In cases where the participants I quote were acquaintances, or on whom I wish to stress a level of respect I have used -san. This is case for Yukihiro-san, who although I consider a good friend, was still my boss at the workshop. However, my friendships mentioned above with Koki and Kazuko have moved beyond honorifics. Kazuko, for example, is familiar with the intimate workings of my body since she accompanied me to the doctor’s surgery multiple times! Everyone mentioned or quoted were aware of my position as a researcher and gave consent for me to record their words and their real names. Given the nature of my relationships with my participants I made the decision not to anonymise either the place or the names of the people I met. This is because Kanai Kougei already have a significant media presence and the process of *dorozome* and *Oshima tsumugi* is so specific to Amami that it would be difficult to do this well. I asked Yukihiro-san for example whether he would like to be anonymised and he replied: ‘No no, no problem at all. I think it’s interesting as archival material. It’s more interesting to be able to record “at that time this was how I thought”’.

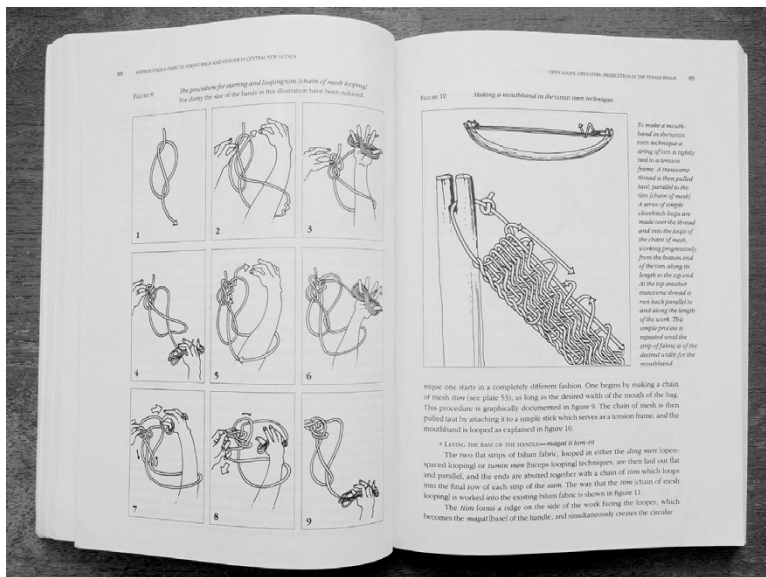
As a result of the position I established, I was able to engage with the daily running of the workshop and observe who was coming and going: press, business, designers, customers, members from the *tsumugi* union, government officials, friends, and relatives. I could see what materials were used for dyeing, over time establishing their origins, understanding their application and how they were transformed. I could track orders as they arrived, assist with their dyeing, and help ship them back to customers on completion. This is a method I call *participant apprenticeship*. As a research technique, apprenticeship was first surveyed through the ethnographic encounter by Michael Coy in *Apprenticeship: From Theory to Method and Back Again* (1989). This much referenced book led the way for a 2010 special issue of *JRAI* that was republished as the compendium *Making Knowledge* (2011), edited by architect turned anthropologist Trevor Marchand. In an academic context, apprenticeship sees one practically learning first-hand from experienced specialists, exploring how the

senses can be used epistemologically for research. This allows insight into pedagogy, expertise and knowledge transmission, but also unparalleled engagement with materials, process and environment.



In anthropological studies of textiles, predominantly female anthropologists have made significant contributions using apprenticeship methodologically. They have questioned the underlying view that textiles are 'domestic' or 'superfluous' by showing how they can be politically and economically engaged. By embedding themselves in the social and physical worlds of makers these anthropologists have shown how the localized production of textiles can reveal larger social, economic, political and environmental happenings. For example, Lucy Norris, who I refer to in Chapter 1 & 2, has investigated textile recycling and weaving in India (2010; 2011), and more recently circular fashion economies in the UK (2017) demonstrating how ethical commodity chains function. Nicolette Makovicky learnt lacemaking with women in post-socialist Slovakia who offered their perspectives on cultural heritage and nationalism (2011). Stephanie Bunn has lived and worked with Kyrgyzstani felt-makers (2010) to provide perspectives on the sociality of making and more recently with Scottish basket weavers (2020), linking materials with the environment, documenting geographically specific craft knowledge. Anna Portisch (2010) shows how apprenticeship goes beyond the learning of technique, since living with Kazakh

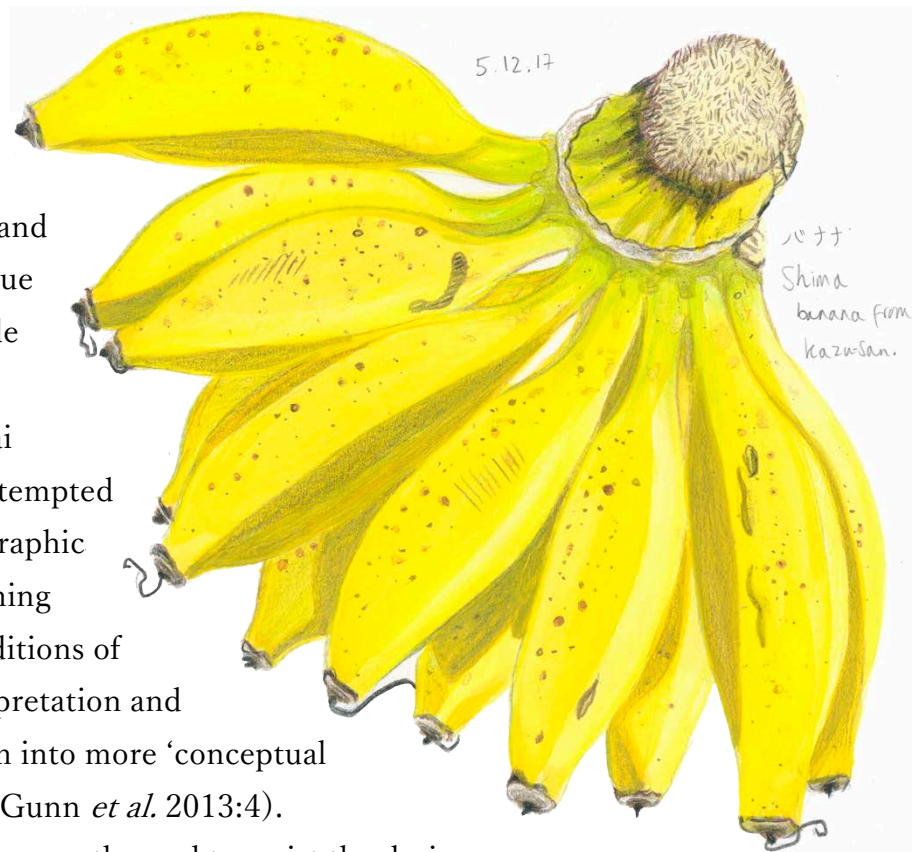
carpet makers became more of an apprenticeship to Kazakh life as she helped to prepare meals and light fires alongside embroidering. Like Portisch, I participated in community social life, joining *matsuri* (seasonal festivals), food making sessions, and foraging activities with friends and their families. These activities helped to forge strong relationships and broaden my network, but also allowed me to expand my focus beyond craft so that I could better understand the issues that were significant for my research participants.



Given this access, I was able to document thoroughly the process and place of production using *visual methods of photography, drawing, print-making, map-making and design*. I have combined these methods with more classic ethnographic techniques to consider how visual data may lead to

stronger anthropological knowledge. Although anthropologists may be constrained by publishers, the lack of quality visuals in books on making seems somewhat counterintuitive (i.e. Marchand 2010). In this respect I believe my approach to be in line with Maureen MacKenzie, photographer, designer and anthropologist, who made an early contribution with *Androgynous Objects* (1991), her classic study of string bilum bags in Papua New Guinea. Mackenzie documented the relationship between bilum bags and social behaviour allowing her to establish the role that the bags play in gender relations and patterns of labour. Archive images, documentary photos, maps and technical drawings (pictured above) are so detailed that one could learn to weave the bags themselves.

I have incorporated design into both the thesis format through its layout and combination of images and also used it as a technique in the field where I made new textile designs in collaboration with Kanai Kougei's staff. I have attempted to push forward ethnographic methodology by combining the anthropological traditions of contextualisation, interpretation and theory, integrating them into more 'conceptual frameworks' of design (Gunn *et al.* 2013:4).



Anthropology is more frequently used to assist the design process, particularly in terms of usability or functionality, but I was keen to explore how this might be reversed, and to ask what results design as an anthropological method might yield. While I found photography, for example, to be an exemplary recording tool for documenting, identifying and communicating my research to a non-specialist audience I have also used visuals – photographs, drawings, symbols, found images – to capture the essence of my fieldsite in the hope of translating my data holistically. Note, for example, the small icons of Amami black rabbits that I have used as chapter markers that reflect the proliferation of Amamian animal symbolism that I discuss in Chapter 4. I have purposely not included image captions, except in instances where more information will provide further insight or clarification, hoping that the reader will instead treat them as part of the flow. In my background as a designer, I have direct experience of commercial design contexts where appropriated materials (rendered on a 'mood-board' as images and inspirations) are combined into a kind of bricolage, aiming to make new visual or functional cultural forms viable as saleable commodities. With an awareness of this extractive practice, I have instead used materials accumulated through drawing, photography and archival research to generate a line of ethnographic enquiry that combines imaginative, academic and ethical thinking.



Working on my own textile designs and collaborating on a clothing project with one of my colleagues at the workshop, I initiated problem solving exercises that all members of staff felt they could contribute to. The older craftsmen shared their knowledge on dyeing techniques, suggesting methods that might be more effective. Comments were made on my choice of imagery for textile patterns – for example I was able to ascertain which plants resonated with Amamian identity, or which ones could be eaten or dyed with. Such discussions frequently highlighted the strengths and limitations of natural dyeing, fostering practical and philosophical debates on the nature of craft. For example, should we employ chemical agents to create the best design possible? Or is it more ethical (and ‘genuine’) to work without them? Whereas the emerging field of design anthropology has, in general, considered the way anthropology can lead to ‘interventionist forms of fieldwork’ (Gunn et al. 2013:11); where the ethnographer collaborates in a design process often driven by the market (Murphy and Marcus 2013:259), my approach considers how design may contribute to anthropological data, suggesting that using design as a methodology allows for reciprocity, through the equalising of knowledge exchange.



I also used *semi-structured discussions and elicitations*, meeting with around twenty participants who varied in age, gender and outlook. My focus was on Kanai Kougei's staff who I met with during their working day, making it possible to reference objects and materials for elicitation. This method allows one to draw-forth information from a participant's memory that acts as a 'trigger' for conversation (Banks 2007:60-70). In some instances, I explored what Tsing calls, 'social-historical landscapes' (2005:38), visiting local sites with craftspeople during their interviews who described the species living in the area, elucidating the social and natural history of local geographies.

Participant apprenticeship was valuable for exploring ethnoecological systems too, being that it places one in direct contact with materials and environments to gain a detailed understanding of species interaction throughout the seasons. *Ethnoecology*, a discipline that 'address[es] human relationships between living beings and other components of nature' (Alves 2016:15-18), also encompasses 'local and traditional knowledge of environmental non-biotic elements, such as soil, rocks, climate, and stellar constellations' (ibid). In Amami, relationships between these elements are strong. *Dorozome* is enmeshed in the cultural, natural and economic history of the island, a history considered to be key to its future.



Finally, I carried out post-fieldwork *archival research* at the University of Syracuse, New York State, where I viewed the fieldnotes, photographs and paraphernalia of the American anthropologist Douglas G. Haring. Haring's field report for the American administration and his colour photographic slides have been an invaluable historical resource on account of their detail and quality. In order to maintain the feel of the slides I have cropped them to indicate the existence of their cardboard frames. I also used the online photographic archive of American ornithologist Oliver L. Austin based at the University of Florida. Austin also worked for the Allied Forces after WW2 to assess food resources and war-induced ecological damage.

My mixed method approach was similar in style to the work of Tim Ingold, who has placed himself at the crossroads of apprenticeship, sensory anthropology, material culture, and environmental anthropology as demonstrated in *The Perception of the Environment* (2001). These ideas were given practical form in *Making* (2013), where 'thinking through making' combined anthropology, archaeology, art, and architecture to inspire new knowledge. While his holistic approach is admirable, I would argue that it is simultaneously inward looking by allowing natural materials and historical practices to dominate with little consideration of economics or other larger structural issues. Ingold neglects the practical futures of the crafts he explores, and the

communities of makers involved in such techniques on the ground. On the contrary, the work of anthropologists in the collective volume *The Social life of Materials* (Küchler and Drazin 2015), many of whom study textiles, document historical techniques and materials but also explore their contemporary or future application. Graeme Were (ibid:31-47) for example, explores the production of *harakeke* (New Zealand flax), examining how the indigenous Maori material continues to defy industrialisation, despite its apparent potential. Instead, it has been reframed as a 'green' craft textile that aligns with New Zealand's eco brand identity.²²

Yet what is apparent throughout this literature is the lack of attention paid to local ecosystems to establish how they might benefit or suffer from the extraction of materials for commodity production. MacKenzie's bilum bag research (1991) notes which birds are hunted for their feathers for adornment and why they are used but neglects to situate the birds ecologically. Laurence Douny in the *The Social life of Materials* (2015:101-118) goes to some lengths to describe the material properties of wild silk and indigo used in the production of Malian *tombe toun* wrapping cloths. But she too focuses on the ritual significance of the materials, demonstrating what particular species can do for humans in social and cultural spheres. Although it is impossible for anthropologists to cover all bases, I believe that there is an underlying bias towards studying the social and the cultural aspects of human life. My study encompasses social, cultural, ecological and material practices documented from both a contemporary and historical perspective, but critically it pays equal attention to the current and future role of craft processes in the local and global economy. I also consider the potential of craft and how future applications may impact ecologies of production in an environmentally sensitive region, forcing a rethink of the relationship between nature, cultural practices and the economy in times of uncertainty.

²² See also Were's work in Melanesia (2013).

Thesis overview

Throughout this introduction, I have posed much of my enquiry in terms of questions surrounding the sustainability of craft processes. How Amami sustains its local economy and community via craft are certainly a concern for my participants and will be addressed in the first half of the thesis. But opinions surrounding the environmental impact of craft production were not always so clearly voiced. This is not to say that concerns and resolutions did not exist, rather they might be said to have been conceptualised differently from those of designers and makers who voice moral claims in their sales pitch that might be reflected in their product's mode of production. Instead, the sustaining processes that care for the local economy, community and environment are embedded in everyday practices of Amami's craftspeople and are imagined through their work as dyers, their responsibilities towards friends and family, respecting local customs and educating themselves about the natural environment. Because limitations exist, concerns are often played off against each other, meaning that contradictions and complicities are certainly at work – as will be addressed in the following chapters. When I arrived in Amami in 2017 I had been drawn by *dorozome* and the specificity of this esoteric textile dyeing process that is unique in Japan and only developed here because of local ecology, geology and, as I will go on to describe, the socio-political history of the Ryūkyūs. But what I did not imagine was how my thesis would develop with an aim to understand the craftspeople's wider relationship with nature, as imagined through the body, local discourse, craft materials and resources. This means that the chapters that follow are extensive in their reach to reflect the way I conceptualise natural dyeing as a cosmology – a specific worldview – that encompasses history, economics, science, nature, sociality, time, materiality, cultural practice, and aesthetics.

This is in part to explain why a large percentage of what follows is concerned with food systems – one might ask, what has this got to do with dyeing? Additionally, why is a whole chapter dedicated to bird conservation, and another to Japan's forestry industry? Earlier in this introduction, I quoted the story of the ecological destruction of Dhaka's rivers reported in *The New York Times*; a point that might have been skipped over by the reader of this thesis was that polluted industrial wastewater from the textile industry killed fish and destroyed food crops that sustained the local population. My argument is that if we are to take responsibility for our ecological

impact on the planet, we have to think beyond the scope of individual manufacturing sectors and the commodities they sell, to the everyday lives of factory workers and their overseers to see how they make sense of the world and how they gather resources, whether material or immaterial, in order to get by. Our number one concern as a species is to ensure that we have sustenance – to sustain ourselves. We take care of our bodies by eating the right foods, even self-medicating using plants. Historically we built shelters using materials from nature, and the natural textiles and dye colorants that we wear on our body or use in our homes also started their life in the soil, growing alongside those same foods and medicines. The aim of highlighting this is not to engage in pastoral nostalgia, to deny the existence or importance of industrial materials, rather to stress that to talk about natural dyeing among natural dyers in Amami one also needs to talk about food, birds and trees. These are the things that combine to create a unique set of relations that define our individual – but also our collective – worldview.

With this in mind, the thesis might be conceptualised as being structured in two halves. The first three chapters are very much concerned with the lives of the dyers who work at Kanai Kougei – both the older craftspeople and the younger ones who have returned or relocated to Amami. The second half of the thesis focuses more on how nature is conceptualised in Japan and locally in Amami. It uses particular species and landscape elements to tease out the complexity of relationships with the land and with nature to put textile processes within a larger context and temporal period. One of the first questions I had when I arrived at Kanai Kougei – where does the *techigi* (Yeddo hawthorn), the local wood that is used as the colour constituent of *dorozome*, come from? – was the last question that I answered. The thesis structure might be said to reflect this, as I start by getting to know the wider context of Amamian textile infrastructure and end with establishing how dye materials used for *dorozome* are obtained.

In Chapter 1, *The mud dyers of Amami Ōshima*, I introduce the craftspeople and context of the island through an overview of *Oshima tsumugi*. Although *tsumugi* is not my focus, the industry's infrastructure is the foundation on which my study is based; I therefore describe the geopolitical background responsible for the kimono cloth's rise and fall. I present the difficulties and doubts experienced by craftspeople who must face the choice of sustaining their industry through preservation or

innovation. *Oshima tsumugi* is likely to become one of Japan's Intangible Cultural Properties, a preservation scheme for which Japan has become globally renowned. But an alternative route that I document throughout this thesis, is to make traditional dye techniques relevant for contemporary lifestyles by extracting the process from the form of the kimono. I suggest that this latter response is a grassroots approach to craft preservation that pushes back against the dominant narrative that suggests that in order to 'survive', traditional crafts – their techniques, craftspeople and materials – need to be preserved as heritage. Instead, I argue that the external flow of ideas, materials, technologies and people can assist in the maintenance of traditions, even allowing them to thrive.

Chapter 2, *The alchemy of producing colour*, focuses on the new generation of craftspeople who have returned or relocated to Amami from mainland Japan and taken up a job at Kanai Kougei. Having left precarious labour conditions behind in mainland cities, I explore the appeal of acquiring craft skills in colour-making that informs one's identity and how these skills lead to a connection within a community of practitioners and with the local natural environment. This story is mainly told through one of my key research collaborators, Yukihiro Kanai, as I show that in order to be a successful craftsman today one also needs to be an entrepreneur. Yet I reframe the concept of entrepreneurialism not as a selfish endeavour concerned only with profit, rather my participants seek an improved quality of life for themselves, their families and their communities. Yet negotiating this balance is no easy task since natural dyeing is a process that resists the demands of contemporary commodity production. Kanai Kougei must therefore compromise with the required materials, time, infrastructure and labour needed to produce high-quality products in order to satisfy the needs of the market. But I ask, at what cost does this come?

In Chapter 3, *'Mottainai!'; what a waste!* I look at how my participants, who have dropped their income to pursue craft labour in Amami, constructively looked to reformulate waste or repurpose excess in a creative manner that draws on existing skills and networks. This is an approach to resources that I frame using *mottainai*, a term that loosely translates as 'what a waste', and has developed into a Japanese tradition where society has practiced frugality in order to endure times of hardship that exist outside of typical capitalist systems. This, I argue, is both reflective of a particular moment of post-materialism driven by precarity in the labour market, but

also as a result of a number of recent natural and environmental disasters that have undermined Japanese faith in the political and infrastructural system. As a way to make these larger happenings legible, I discuss the uncertainty that has been unleashed via a discussion of food security in Japan. I look at how the evasion of responsibility by bureaucrats has led to the erosion of trust in the state. This has driven people to seek information via alternative networks of solidarity, even prompting them to change their career and lifestyle by relocating to rural regions. I argue that disruptions such as 3.11 open up the politics of everyday life, meaning people are more willing to engage in societal issues. Key to this argument is environmental pollution that has had a significant impact on food safety, but the practice of manufacturing commodities such as textiles are also implicated. I ask whether the care that goes into sourcing and making healthy foodstuffs might infiltrate more creative craft-based outputs. I also question whether food activism, where reduction or repurposing of waste, good nutrition and environmental responsibility are built into production, might be seen as a precursor to more considered regimes of care surrounding commodity production, use and consumption.

I engage with a wild songbird in Chapter 4, *The Mejiro: between resource, conservation and companion*, that was kept as a caged pet at Kanai Kougei. I follow the lead of anthropologist Anna Tsing by carrying out ‘the arts of noticing’ - a technique she explains as a ‘rush of stories’ that ‘include ethnography and natural history’ (2015:37) to thickly describe local landscapes, inhabitants and backgrounds. Using this technique, I delve into the history of Japanese bird conservation, drawing on archival documents and photographs from American academics who worked with the occupying Allied Forces. I show how the movement to protect birdlife was begun by Japanese elites but established by an ‘environmental wind’ (Hathaway 2013:7) brought by the Americans. I use the *mejiro* as a leitmotif to examine the exploitation of wild birds in Japan, but also globally, to understand how generational shifts in economics, politics and international relations have influenced the way nature has been conceptualised as a resource or as a companion. This historic case study allows one to consider how attitudes to nature are influenced by the global circulation of ideas, but that if change is to occur, these ideas need to fit local contexts. The purpose of this chapter is to allow one to imagine how an increase in environmental responsibility might occur in the future, particularly in regard to my contemporary case study examined in Chapter 5.

Chapter 5, *'The industrious way of doing things'*, is a case study that seeks to understand practices of waste disposal that occur at Kanai Kougei, inserting them within historical attitudes to land and resource use on Amami. This chapter focuses on the use of water and chemicals at the workshop, particularly those associated with indigo dye, and features a close examination of the different water sources that are used for textile production. I argue that the 'industrious way' that resources are used has been influenced by historical cultural practices and hybrid belief systems, with Amamian spirituality, that is bound to nature and physical geography, at its core. But I also suggest that modern attitudes are the result of an approach to industrialisation, supported by the government, that has favoured economic growth at the expense of people and the environment. In Japan (and Amami), the concept of a nature alive with spirits has typically guided the way that people treat the land, with irresponsible environmental behaviour likely to result in two types of haunting. The first might be at the hands of spirits, and another driven by a sense of guilt about the consequences that one's actions might have for other life forms. This chapter therefore provides an ethnographic example to support my central argument, that sustaining processes might be framed as an unintended consequence of anxiety about the unknown. I therefore question whether uncertainty may force resolutions that prompt sustaining processes.

In Chapter 6, *'Dyeing with the Earth'*, I document the source of local trees – *Techigi* (Yeddo Hawthorn) and *Fukugi* (Common Garcinia) – that are essential for Amamian textile dyeing. I use forestry reports produced by the occupying US Allied Forces in the Ryūkyūs as an entrance point for examining forest management and land access in Japan, tracking this from the Tokugawa period (1603-1868) through to the WW2 and beyond. I show how the development of capitalism and industrialisation, that relied on systems of taxation, legislation and privatisation, increasingly dispossessed communities of their land and access to forest resources in order to support nation state building. I use *techigi* as a case study for examining the mobility of capitalism, by showing how Japanese forestry was devalued to the benefit of the local textile industry in Amami. But also how non-capitalist social relations, labour, materials and resources are used to create economic value. The aim of the chapter is to show how geopolitical and economic forces have disrupted the way that nature is conceptualised locally and degraded traditional knowledge of using and conserving one's ecosystem. Japan is a country where attitudes towards nature have foregrounded care and respect

to both ensure future sustainability *and* appease spirits, but I show how increasingly these attitudes have conformed to western ideals of natural resource management that prioritise the control of nature to obtain economic profit, to the detriment of local ecosystems and the integrity of geographically-specific craft processes. I conclude the thesis by questioning what impact this desire to control has had, as the opposition of an epistemics of uncertainty, and how this might inform future narratives around sustainability.



Chapter 1: The mud dyers of Amami Ōshima



Arriving to work at Kanai Kougei one morning, Eriko-san beckoned me to the indigo workshop. Having lived in New York working in the fashion industry myself, she thought I might enjoy speaking with Hatsuko-san, a Japanese pattern cutter at Alexander Wang who was visiting from New York.¹ The Japanese have a reputation in the design industry for being highly accomplished pattern cutters. We quickly discovered that some of my ex-colleagues were her friends, not an uncommon occurrence since fashion industry workers typically gravitate around a few international cities. Nevertheless, like meeting Koki in similar circumstances, who I had probably passed in the corridors at college as a fashion student, I was still surprised to make this acquaintance in Amami. Since 2016, Hatsuko-san has visited Amami two to three times a year attracted by the qualities and traditions of *Oshima tsumugi* cloth. She showed me the undergarments she had constructed using *tsumugi*, and organic cotton versions coloured with *aizome* (indigo-dyeing) and *dorozome* (mud-dyeing) using the *shibori* (tie-dye) technique. She had dyed these design samples while participating in a public workshop at Kanai Kougei and had returned to

¹ Alexander Wang is an established New York fashion brand.

interview the Shachō about Amamian traditional dyeing. Convinced that the ‘tight construction and un-breathable material’ of brassieres might be ‘one of the underlying causes for breast cancer’, Hatsuko-san has patented her smart design and will launch her brand soon. She later told me: ‘I want to create something gentle to the body using a natural product from the earth’, thereby avoiding ‘transdermal toxicity’ – the transferal of chemicals into the body through the surface of the skin. She is also mindful to ‘preserve the original tradition [of *tsumugi*] with an open mind towards new and innovative uses.’

Oshima tsumugi is a highly sophisticated textile boasting a lineage of approximately 1300 years.² A kimono silk whose yarn is dyed by *dorozome*, it is hand-woven into a complex series of patterns derived from Amamian flora, fauna, and material culture including the



prehistoric *sotetsu* (cycad plant) and Amami’s most poisonous snake the *habu*. The production of *tsumugi* has changed little since the post-war period with each *tanmono* (role of cloth for one kimono) passing through many hands, taking one year to complete from start to finish. It follows approximately 28 unique processes, which can be further deconstructed making it both labour intensive and complex – as reflected in the high price tag of around 400-700,000JPY (3,000-5,000GBP) per

² Records from the *Todaiji* temple in Nara suggest *tsumugi* or ‘dark brown pongees’ were given as tributes to the Emperor by the Ryūkyū kingdom from the 8th century and used as tax paid to the Satsuma Government during the Edo Period (1603-1868) (Tanaka et al.2005:99).

tanmono. This level of sophistication has made it one of the island’s most significant cultural exports.

The *tsumugi* industry once supported the livelihoods of more than 20,000 people at peak production of the 1970s, when a nostalgia boom swept across Japan, providing the island’s main source of income.³ But today, the cloth is threatened by shrinking demand and currently employs only around 150 people. The industry hangs on by a thread, as many procedures in the production process are carried out by aging craftspeople without apprentices in waiting. Innovative approaches must be taken by those dependent on *tsumugi* production for their livelihood or accept the fate of becoming a *Mukei Bunkazai* (Intangible Cultural Property). This Japanese government scheme recognizes historic or culturally valuable arts and crafts, prioritizing the skills held by individuals or groups rather than the objects that they produce. While this may raise the status of a craft, providing financial and infrastructural support for craftspeople and protecting it for future generations, it often strips an industry of any real money-making capacity. The alternative is to update a craft giving it a contemporary purpose either by modernising the form or by singling out and developing an aspect of its production.

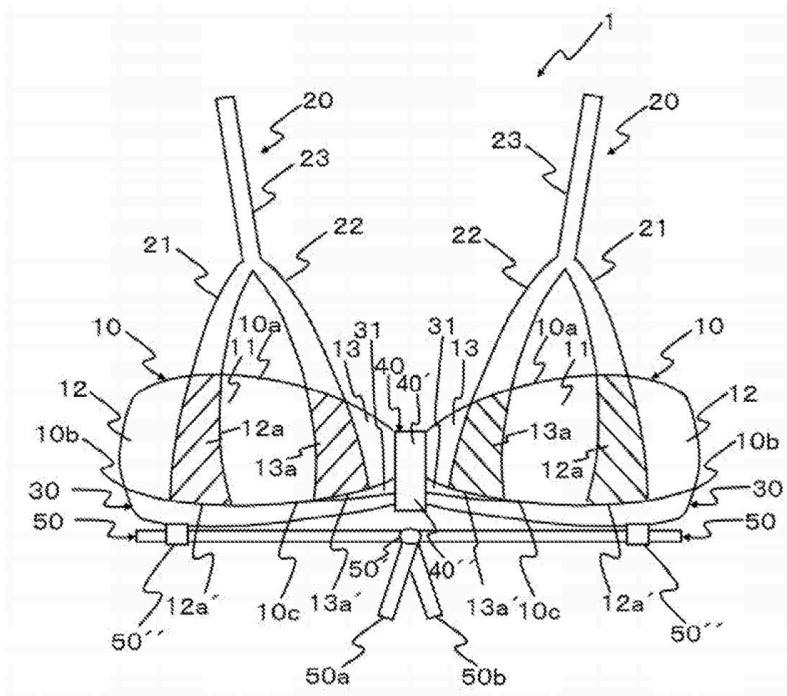


Image: Hatsuko Mizoguchi. Patent no. US20190045853

Hatsuko-san’s ideals therefore capture the purpose of this chapter, as I examine how the dyeing processes used in the manufacture of *Oshima tsumugi* have been adapted for the production of contemporary fashion garments such as Hatsuko-san’s innovative brassieres, that will eventually be sold to fashionable consumers in Manhattan. I argue that this is not simply a matter of practical,

³ Fackler, Martin. ‘Old Ways Prove Hard to Shed, Even as Crisis Hits Kimono Trade’. *The New York Times*, 9 February 2015.

material adaptation of process, but is the result of a gradual evolution of tradition that arises from social, economic and political circumstances too.

Although objects of craft are seemingly innocuous, through a close reading of their production they may bring to light a contentious history. The enduring place of craft objects and processes in social, cultural, economic and political life in Japan at both local and national levels, has stimulated much debate on how as traditions they are defined, and the most appropriate way to sustain them. This is a debate that has been ongoing throughout the industrialization of Japan that began in the Meiji Era (1868-1912) and accelerated after WW2. Conflicting opinions in regard to the future direction of traditional crafts have been voiced by various stakeholders including bureaucrats and politicians, influential cultural elites, the various craftspeople involved in production and the general public. The growth of interest in sustainable commodities, has in recent years, given renewed fire to these debates, highlighting a paradox between the necessity to preserve or the need to innovate. Should traditions be deindustrialized to preserve their historic and cultural integrity, under the instruction of external policymakers? Or should makers respond innovatively to market demands, bolstering industry in the short-term that might result in long-term sustainability?

To enable me to answer these questions, first I will present the debate as it stands today, and how it may be conceptualised across many Japanese craft industries. To understand its complexity and its impact on local communities I will then provide a history of the *Oshima tsumugi* industry and how it developed across the 20th into the 21st century. Equipped with this history, one can then begin to understand the contrasting opinions of various stakeholders, and how decisions made at the national level affect small craft communities such as Amami's. I then use my ethnographic example of Kanai Kougei to pose an alternative vision of the future that encompasses both the preservation of craft and a route to innovation.

'Making it for your country'

Since the Meiji Era, Japan has protected a multitude of traditional crafts as important vessels of national identity, providing financial and bureaucratic support for craftworkers and writing these acts of preservation into legislation. Before WW2

strategies focused on the preservation of tangible properties such as ‘antiques’ and ‘old properties’ (Kakiuchi 2014:2), threatened as they were by rapid industrialisation and urbanisation. But post-war, with the creation of the 1950 Law for the Protection of Cultural Properties, the revival of classical arts and crafts processes reminiscent of a time prior to Imperialism joined folk traditions under the banner of the Intangible Cultural Properties (ICP) scheme (*Mukei Bunkazai*) (Kenji 2007:10-11). Initially high value or ‘endangered’ skills were supported, but later this included any crafts that had ‘historical or artistic value’ (Milhaupt 2014:99). The ICP scheme at first took the form of a physical record (written documents, samples, and films) of transmitted skills, and financial assistance for craft workers, alongside efforts to establish ways to incorporate crafts into contemporary life (Kenji 2007:11). The remit expanded from 1954 however to include drama and music, folk cultural properties such as ‘ways of life’ and ‘religious beliefs’, and tangible properties such as architectural heritage, landscapes, plants and animals (ibid).

As a form of soft power, the success of Japan’s preservation strategies have become world-renowned partly due to the Ministry of Foreign Affairs ‘concentrating its efforts on international cooperation for Cultural Heritage as one of the pillars of its diplomatic policy.’⁴ Yet my research has shown that the Cultural Properties scheme has its problems, and the high opinion it garners globally is not necessarily shared by ordinary Japanese craftspeople. This became apparent early on in my research, as the likelihood of *tsumugi* becoming part of the ICP scheme loomed large. Nagata-san, one of Kanai Kougei’s oldest and most talented dyeing craftsmen, explained:

We will be able to keep making *tsumugi*, but if it becomes an official cultural heritage the craftsman doing it will stop; we won’t be able to make an industry from it – everything will stop. It will just become about “making it for your country” (Nagata-san, 70).

This opinion, as it is widely shared in Amami, is corroborated by the research of anthropologist Brian Moeran (1997), who’s classic ethnography of Onta pottery (*ontayaki*) in Kyūshū revealed how *ontayaki* is constrained by its *Mingei* (folkcraft) categorization. *Mingei* is a style of folkcraft that was defined by philosopher and art critic Yanagi Soetsu in the 1930s, joining ‘an anti-modernist reaction against urban

⁴ Ministry of Foreign Affairs of Japan website.

industrialisation’ (Brandt 2007:1). Having been heavily influenced by the writings of British art critic John Ruskin, Soetsu established *Mingei* based on a ‘highly romanticized’ ideal of ‘rural communalism’, where nostalgia for the past saw ‘the countryside ... as a repository of “true” values [such] as frugality, altruism, harmony and cooperation’ (Moeran 1984:12). *Mingei* was a philosophy of making that realised itself through the material culture of the *minshū* (common people). Pottery, farming utensils, textiles, and woodwork from across Japan’s empire were sought out by Soetsu and his followers and rebranded as ‘*Mingei*’ by combining the words *minshū* and ‘*kōgei*’ (craft) (ibid). The socio-cultural impact of the *Mingei* movement is perhaps most notable in its influence in the aftermath of WW2, when craft was considered key to the ‘material and ideological reconstruction of a “healthy” national life as well as manufacturing and exports’ by the government and Allied forces (Brandt 2007:224). *Mingei* therefore defined both the aesthetics and philosophy of craft preservation in the post-war period, being the foundation on which ICP was built.

Using ethnographic apprenticeship and becoming an accomplished potter himself, Moeran’s participant potters in the Onta valley revealed their frustrations with the freedom he had to craft unique designs. They claimed they were ‘bound by tradition’ and could not themselves divert from ‘traditional Koishiwara ware’ because Japanese customers would say it wasn’t ‘proper’ and they wouldn’t ‘sell a thing’ (1997:122). This research was updated by anthropologist Alyssa Paredes (2018) who compared the community thirty years later. She studied how modernization through the use of contemporary manufacturing technologies is still considered a threat to tradition. She outlines the 1971 discussion around the ‘Problem of Mechanization’, where potters debated with representatives of the local authorities – the Prefectural Cultural Property Preservation Board, the Ministry for Commerce and Industry, the Tourist Association, and the Mingei Association (ibid:140) – who defined *ontayaki*’s Cultural Asset designation and the promotion and funding that came with it.⁵ The potters wished to introduce electric-powered clay crushers that would support commercial production so put their case forward for consideration. This debate was focused around the huge clay crushers (*karausū*) that had been built into the village’s social and ecological infrastructure for centuries. Since they were operated by waterpower provided by the river, the *karausū* promoted egalitarianism that dictated the number

⁵ A Cultural Asset is a lower designation than an ICP with less finance and prestige.

of potting households, even the numbers of potters that could be working at any time. However, the potters were subject to *Mingei* ideology that resisted mechanization and saw the *karasu* as central to village communalism. *Mingei* ideology also advises that everyday objects must be affordable, but this did not account for inflation or rising business taxes or the fact that potters struggled to meet demand for their products (ibid:140). Parades references local newspaper articles from the time who suggest the decision would be based on whether in the future *ontayaki* would be defined as a ‘commodity’ or a ‘cultural property’ (ibid:141). While the potters argued that ‘clay is clay’ (ibid:141), the authorities denied the potter’s request reasoning that new machinery would damage the pot’s handmade quality and be detrimental to social cohesion in this tight-knit community. In effect the authorities actively supported craft labour in order to make *ontayaki* distinct from industrial production. Local knowledge and production processes were fixed in Onta’s landscape, demonstrating how the politics and economics of preservation cuts through to the everyday working practices of craftworkers.⁶

In 1995, *Ontayaki* was upgraded to an ICP meaning it is now subject to even stricter regulations in make, materials and design. As Nagata-san suggests, producing *Ontayaki* today is ‘making it for your country’. Parades writes:

The guidelines streamline the understanding of an unfixed culture into its most legible form. Through the regulations, cultural life in Onta begins to make sense as a form of ‘property’ belonging less to the potters than to the state (ibid:146).

These debates around preservation have existed for decades, affecting a multitude of traditional practices. In textiles, this is well illustrated by the cultivation of Tokushima’s *Awa* indigo, preserved in 1978 as an Intangible Cultural Asset (Ricketts 2006:9). Roland Ricketts, an American artist who apprenticed with Tokushima’s growers and dyers, has stated that because craftsmen receive government funding, producers:

cannot deviate far from what is considered “traditional.” This greatly limits the degree of mechanization in the farming and processing of indigo, raising the price of the dyestuff they produce and making it difficult to attract younger farmers to this extremely labour-intensive work (ibid).

⁶ My own work with Harris Tweed weavers in Scotland and Lucy Norris’s (2011) work with handweavers in India suggests the preservation/innovation debate is global.

In personal communication with Ricketts I learnt that it is the composting of indigo leaves, making a dyestuff called *sukumo* (see Chapter 5), that is protected as unique to Japan, whereas cultivation is open to technological advances i.e. the use of mechanized leaf-cutters, chemical pesticides and fertilizers. Yet, even if farmers were able to increase their yield, they'd struggle to compost large quantities as they wouldn't be able to utilize modern tools. Instead they rely on wooden variants as specified by the 'Organization for the Preservation of *Awa* Indigo' who act on behalf of the Department of Culture.

Oshima tsumugi is already subject to a variety of rules to maintain its 'authenticity', as I will discuss below, but Kanai Kougei's Shachō highlighted the current predicament of *tsumugi* as follows:

As a part of Japanese traditional culture, kimono culture will not disappear. However – I think [*tsumugi*] will cease being an industry, as it has been. Perhaps it will become a *Mukei Bunkazai*. If that happens...there will be a lot of new regulations around it. In that case, we won't be able to pursue profit from it as a business in the future (Kazuhito Kanai, 60).

Making it yourself

Alongside his wife Eriko-san, the Shachō established Kanai Kougei in 1982. The workshop is of particular interest because in the 1950's there were sixty *dorozome* workshops in Amami. Today there are only five, and only two of these including Kanai Kougei are prospering. *Dorozome* or mud-dyeing is a complex and labour-intensive process where preprepared silk yarns are dyed in a liquor produced from the boiled wood chips of local *sharinbai* (Yeddo Hawthorn) trees, known in Amami as *techigi*. Tannins in the liquor, naturally occurring molecules that exist in all manner of plant stuffs, bind with the textile fibres and then with iron (ferric oxide) that occurs in high quantities in Amami's mud, darkening the colour. This diluted mud is applied in an outdoor space called a *dorota* (mud-field). The process takes about a week from start to finish, and changes a textile from white to pink to red to brown, and with up to seventy applications, to black (see Appendix 4). Throughout the *tsumugi* boom period, during the 1960s and 1970s, the Shachō learnt *dorozome* at one of several workshops in his village of Toguchi. His wife, Eriko-san, told me that



Satoko-san sewing together *tsumugi* mats ready for dyeing.

he used to train in the workshop during the day, attending high school in the evenings. Although he had talent, the Shachō and Eriko-san moved to Osaka in the late 1970s where Eriko-san trained in the knit industry and the Shachō started a concrete carpentry business in response to the real estate boom. After this business went bankrupt and Eriko-san became pregnant with their son Yukihiro-san, the Shachō returned to Amami at the age of 23 to start Kanai Kougei. He constructed the workshop on family land, while Eriko-san secured a million yen from an Amamian business association supported by the state to furnish it with equipment. From here they built the workshop's reputation to employ eight full-time *tsumugi* dyers at peak production.

Being a first-generation craftsman, and therefore without the constraints of family obligation, the Shachō has always been a future thinker. Although Kanai Kougei has experienced ups and downs that parallel the wider industry, early on he sought out alternative streams of income. He attributes the workshop's on-going success to their ability to innovate:

... apart from me most of the others [dye craftsmen] had never physically left Amami Oshima. Back when everyone was making good profits, I travelled around all over

Japan – and it was then I realized that we needed to do public workshops and so on. But the vast majority of the others were just doing their main *Oshima tsumugi* work, never leaving their workshops. I guess in the past maybe that was the *shokunin* (craftsman) mentality... I don't know...



From back left: Koji-ani and Nagata-san drying *tsumugi* yarn; workshop participant in yellow overall; Satoko-san dyeing *tenugui* (hand-towels); Kazu-san dyeing *tsumugi* yarn.

Opening the business at the start of the financial downturn for *tsumugi*, the Shachō was careful not to rely on the success that the industry had experienced since the 1950s. He made efforts to network, improving connections locally and nationally cementing his reputation as a craftsman but also as an innovator. He also recognized that *dorozome* might have a life beyond *tsumugi*, seeing how craft processes were being commercialized across Japan through a public workshop model, blurring the boundaries of production and consumption. Since *tsumugi* was still profitable, this angered his contemporaries, who saw such deviations as ‘an interruption to [their] work’. At Kanai Kougei, the Shachō organised dyeing workshops for tourists and locals, who could (and still do) pay only 3000JPY (about 21GBP) to ‘make it themselves’ for as little as an hour to a whole day, working alongside the professional craftsman. While some of the dyeing workshop participants want to engage with their cultural history and to better understand unfamiliar craft techniques, others are simply looking for activities to occupy free time, much needed on an island where the beach is the main draw and the weather can be unpredictable.

The holding of these dyeing workshops, both with locals and visitors, offered a window for Kanai Kougei to diversify, with the Shachō welcoming the flow of ideas, materials, technologies and people from outside of Amami, even in the face of significant criticism from the *tsumugi* community who were reluctant to change. Being concerned that the extraction of the *dorozome* process for other purposes would undermine *tsumugi*'s complex manufacture, Amami's *tsumugi* community have instead made efforts to diversify their product range (with neckties, handbags etc.) and reach new markets (in the US for example). But these attempts – which have been carried out since the 1980s by producers, the *Oshima tsumugi* union (who oversee production), and the local prefectural authorities that recognize *tsumugi*'s cultural and economic value – have mostly been unsuccessful in sustaining the *tsumugi* industry.

As the burst of Japan's financial bubble saw kimono sales plummet in the 1990s, Kanai Kougei also experience a fall in *tsumugi* orders. The Kanai's encouraged their children to seek employment elsewhere. Alongside Yukihiro-san, the eldest child who left for Tokyo in his 20s to pursue a career in music, the Shachō and Eriko-san's three daughters also followed alternative careers. Ai-san is a fashion stylist in Tokyo, Yuka-san is an employee of the Yakult Corporation in Amami, and Maiko-san became a

hairdresser before returning to assist her mother at Kanai Kougei in the mid-2000s, when the public workshops for tourists took off. By now employing just three full-time *tsumugi* dyers, in 2004 Yukihiro-san returned to Amami from Tokyo. He was concerned by the precariousness of work in the music industry, but he also missed the island. Not being trained in *tsumugi* dyeing, nor encouraged to learn by his family (his father believes he lacks the temperament!⁷), Yukihiro-san recognized there was a demand for apparel-related work and created a job for himself:

Until I returned to Amami, the Shachō dealt with apparel just a little — he was turning down most of the jobs. Why? Because [artisans] cannot be bothered to deal with people from outside. It was then when I noticed that there was no one here who is capable of handling communication ... I thought it would turn into work if I returned with colours, because apparel takes orders by colours (Yukihiro Kanai 38).

Although the Shachō had been developing business networks beyond Amami, he was not always able to follow through with ‘special’ orders. As social media and email have become the dominant forms of communication between client and manufacturer, Yukihiro-san stepped in (see the following chapter for an expanded discussion about Yukihiro-san). It was also around this time that environmental awareness and sustainability discourse began to creep into fashion (see Fletcher 1998). Natural dyeing, on first impressions, seems more environmentally friendly and with Japan possessing a wealth of traditional dye techniques, fashion brands in Tokyo had begun to pursue alternative methods of colouring textiles. Yukihiro-san had been experimenting with *kusakizome* (plant and tree dyeing) to develop a colour palette, teaching himself using the skills he had absorbed from a lifetime around the workshop. *Dorozome* was the base using wood from local *Sharinbai* trees (creating black, brown and pink). He supplemented these with other local or bought in materials: Amamian *fukugi* or Common Garcinia (yellow); Indian indigo and German chemical indigo (blue); *akane* or madder (red). Without any promotion, only through word-of-mouth of his city contacts, the business grew. This, Yukihiro-san claims, is reflective of the horizontal (heterarchical) relationships that exist in the design industry (i.e. ‘I saw the dyeing work a friend of mine had done at yours. Could you do mine as well?’) rather than the strictly vertical (hierarchical) nature of the *tsumugi* industry.

⁷ By this I infer that the Shachō means patience and willingness to commit to one thing over many years.

As a result of this policy of inclusiveness, Kanai Kougei dyes individual garments sent by non-design professionals, but also textiles for Japanese design giants Issey Miyake and Yoji Yamamoto. This democratizing of process, giving access to anyone who wants something dyed (or indeed to dye it themselves) is particularly interesting, since little profit can be gathered through this approach to manufacturing – that is why factories typically have ‘minimum orders’. But taking this approach, small profits can be made, and an heterarchical attitude might foster further social, economic or marketing opportunities. As such, a symbiotic relationship has formed between Kanai Kougei’s *tsumugi* dyeing and its apparel work, with income from the latter supporting the dyeing of 70% of all Amami’s *tsumugi* yarns annually.

Since Kanai Kougei has developed strong relationships with the kimono cloth makers, with many of the owners being friends or peers of the Shachō and Eriko-san, at present the volume of orders for *tsumugi* yarn is high and consistent. Payment is made on delivery of goods, usually face-to-face, meaning there is always cash flow to keep the company functioning. In contrast, apparel has a higher unit price meaning more profit can be pursued. But invoices are typically paid two to three months later, with some companies defaulting on payment, protected by the safety of distance and the difficulty of pursuing legal action. Apparel is also more changeable between seasons, and production is challenging since the textiles being dyed are varied and inconsistent, leading to mistakes. While this current model seems to work, it is a delicate, precarious balance.

Before developing my argument further to show how innovation and diversification can sustain tradition, it is essential to understand how the revitalized *kusakizome* business has been able to succeed. Due focus must therefore be given to *Oshima tsumugi* to provide a detailed overview of how the industry developed, and to demonstrate its significance within the community from an historical perspective. As such, the reconfiguration of *kusakizome* into a contemporary production method relies on the authenticity, institutions and social networks surrounding the *tsumugi* industry. This is what anthropologist Lucy Norris calls ‘embedded infrastructure’, being the tangible and intangible connections between technology, people and materials that exist in ‘traditional textile towns’ (2017:7). Norris’ fieldwork in India has shown how textile heritage in post-industrial regions can be deployed as both a

meaningful marker of local identity, but also how craft traditions can be commodified by local authorities to ‘embody the principles of fairness, social accountability, and sustainability through their production values’ that represent state ideologies (2011:304). But beyond these symbolic markers, she demonstrates how material infrastructures – such as decaying, dormant workshops containing supplies and equipment – are kept in a state of disrepair ‘waiting for another upturn’ (2011:292), since ‘maintaining their visibility and potential viability is crucial to success’ (ibid:286). The heritage of *Oshima tsumugi* is the foundation on which Kanai Kougei’s reputation is built, and accordingly the marketing of the *dorozome* technique draws heavily upon this heritage. By taking a wider view that encompasses political movements, advances in technology, and the movement of materials and people across time, one can begin to understand how *tsumugi* is valued locally, and how it is viewed from afar, but also how it has been possible to extract the dyeing process from the cloth’s complex manufacture.

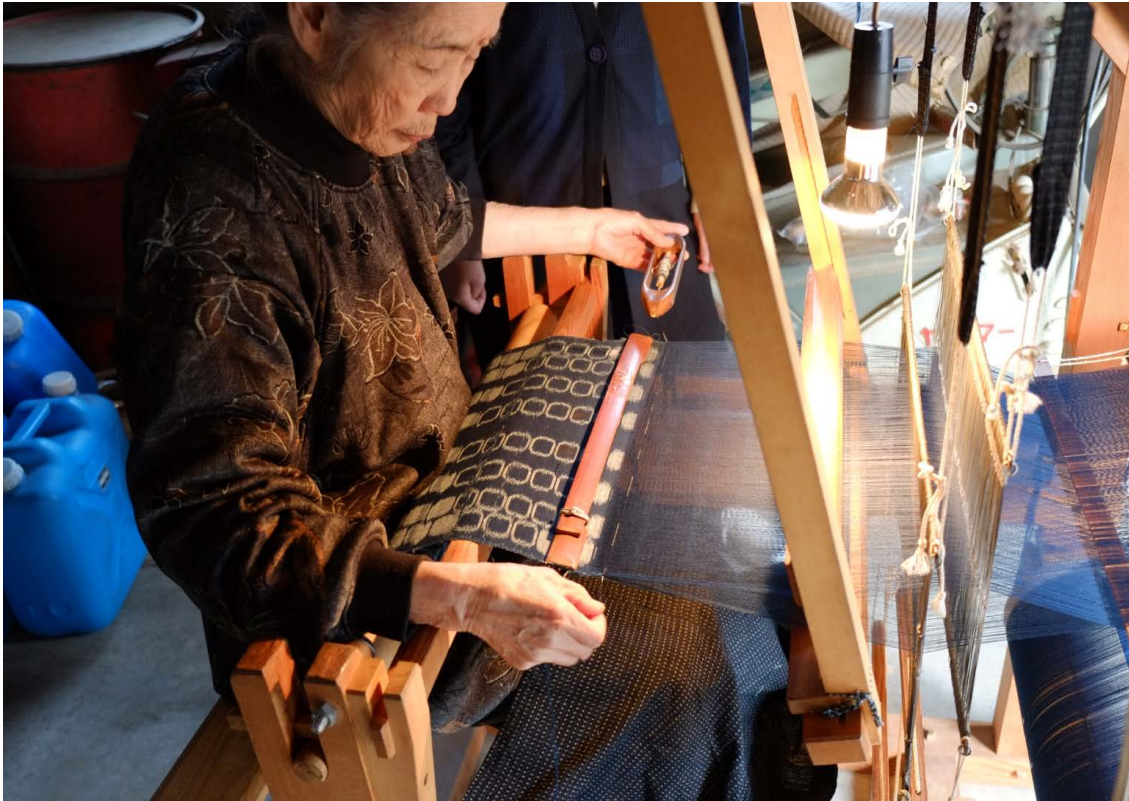


Most of the weaving workshops I visited reflected Norris’ idea of dormancy (2011), where multiple looms filled dated-looking rooms patiently waiting a return to productivity. As such, they were kept spotlessly clean.

The tumultuous history of Oshima tsumugi

After Japan's Meiji Restoration (around 1868), Edo era (1603–1868) sumptuary laws that dictated the colours and fibres that society could wear were abolished, meaning that *Oshima tsumugi* was no longer the preserve of aristocracy. Quickly commercialized and made available to those with wealth, from 1877 *tsumugi* was prized throughout Japan's major cities leading to the development of new fashionable patterns to meet the demand of growing consumer markets (Milhaupt 2014:94). At this time of increased international trade, Amami's main export crop of black sugar (*kokutō*) was devalued by imported sugar (see Chapter 6). Since textiles were driving Japan's industrial revolution both financially and technologically (Clark 1979:38), labour in Amami shifted to the textile industry.

Around the turn of the 20th century, the Japanese began to import chemical dyes from Europe to meet the demands of mass production. Dye techniques, however, were maintained locally, since the Japanese had developed their own sophisticated methods over many centuries (Yamatobe and Fuji 1996:7). The impact of imported chemical dyes soon reached Amami. Masami Yuge reports that a letter published in the *Miyazaki Shinbun* (published in Kyūshū) from 1900, claimed that “‘artificially dyed’ *Oshima Tsumugi* should be better regulated because it would encourage over production of an inferior quality textile” (2005:126). This suggests early on that the ‘historic’ and ‘natural’ method of dyeing was being linked with quality, differentiating it from machine-era products produced in the rest of Japan. It would be fascinating to know who had sent this letter; I raise this question because the Kagoshima Prefecture Oshima Tsumugi Cooperative was established in 1901 to maintain quality and promote sales of this burgeoning textile commodity (Tanaka et al. 2005:192). By 1929, Amami had established its own independent branch (referred to from here onwards as the *tsumugi* union) charged with overseeing production and developing new techniques and products, drawing on local material and labour resources to protect the ‘authenticity’ of the product.



The expansion and development of *tsumugi* saw the introduction of a resist dyeing technique called *kasuri* (above) that has a characteristic brushed appearance borrowed from nearby Kyūshū, where producers of *Kurume gasuri* had developed a cotton cloth of national repute (Milhaupt 2014:94). *Kasuri* is more commonly known as an *ikat* weave outside of Japan, and is found throughout Asia. It is constructed via a complex process of space dyeing across the length of the yarns of the warp and weft, the pattern securely tied off to resist the dye using a coated cotton (below). This leads an offset, blurred image to re-emerge during the course of weaving, as the space-resist areas are re-aligned.

Design historians Yamanobe and Fuji suggest that the introduction of graph paper into Japanese weaving communities meant more pictorial designs could be developed and shared between weavers, leading to more standardized patterns (1996:95). This was a method learnt when a number of Kyoto weavers were sent to France in 1872 to study the Jacquard technique, acquiring looms and equipment (ibid:4).



Kurume gasuri bindings.

The invention of the Amamian *shimebata* loom (below) in 1907 also sped up production to meet rising demand (Tanaka et al.2005:183). Replacing the labour-intensive hand-binding of *kasuri*, the *shimebata* instead weaves the bound areas into a ‘*tsumugi* mat’. The complexity of the cloth’s pattern is woven into an abstract grid system that increases the scope for more detailed designs. This allowed *Oshima tsumugi* to compete with similar *tsumugi*’s being machine woven and sold in Tokyo, who imitated the small abstract patterns that had won *tsumugi* its reputation. Like the use of foreign chemical dyestuffs absorbed within existing Japanese processes, the introduction of technology from near and far led to innovative approaches that advanced the craft; meeting both market demand in quality, quantity and aesthetics. New technology was consequently embraced to reduce labour costs and to promote innovation as a means to define local uniqueness, upgrading the finish of the cloth from its humble origins to something more luxurious.

Since the Meiji era, textile patterning across Japan was becoming increasingly more ostentatious, as detail on kimono moved from the legs, up the body, to across the neck and shoulders – a trend that was thought to coincide with more people sitting at western-style tables (Yamatobe and Fuji 1996:12). Distinguishing itself with the



originality that the *shimebata* loom afforded, Amami responded with patterns reflecting its wildlife and cultural identity, and also developed unique patterns to reflect many of the weaving areas. For instance, a depiction of a *zanbara*, an Amamian woven bamboo rice basket, symbolizes the northern village of Akina, one of the only regions still growing rice today. While the Tatsugo pattern includes graphic representations of *sotestu* fronds, *habu* skin and hibiscus flowers that has been subject to hundreds of redesigns, the most recent said to have been influenced by a cloth from China (see Appendix 1).

During WW2, 'lavish textile production' was halted when the government issued a sumptuary law in 1940 to halt the production of luxury items and prioritize munitions manufacture (ibid:4). Amami was spared as it was argued that *tsumugi* was the islanders' 'life line' and disrupting production would be detrimental to the maintenance of intangible local knowledge (Tanaka et al.2005:101). Anthropologist Marilyn Ivy (1995) has described the way that Japanese traditional practices and commodities have been preserved as emblems of cultural continuity. She suggests that a 'double movement whereby that which was marginalized by the advent of nationalist modernity in the Meiji Period (1868-1912) – peasant practices, superstitions, the folkloric – was in the same movement objectified as most essentially traditional' (ibid:25). Preserving 'unique' craft knowledge was aligned with the

government's approach to culture that, in the build-up to WW2 supported an increasingly nationalist agenda, shaping Japanese identity through commodities to counter the encroachment of Westernization (Brandt 2007). As a consequence, items such as kimono and the skills they encompass were mobilized as tools for 'nation-building' and emblems of Japaneseness (Milhaupt 2014:195). It could be argued that the maintenance of a traditional textile with a biography as ancient as *tsumugi*'s, and the intangible knowledge of its artisans based within a narrow geographic area, gave it its exceptional status during the war for fear that 'national-cultural identity, continuity, and community' (Ivy 1995:26) would be lost.

Tsumugi production therefore continued, but output was severely restricted, leaving the industry in a precarious position. This decline was documented in 1951 by American anthropologist Douglas G. Haring, who was commissioned by the occupying US army to produce an ethnographic report on Amami. Across six months he collected data on lifestyle, customs, industry, health that he used to ascertain sentiments towards the mainland, gauge the extent of communist infiltration, and ask how the US authorities might support social and economic development, suggesting a timescale for withdrawal. Given the economic post-war destruction of Japan and the dire consequences for the nation's material wealth, Haring reports that at this time the *tsumugi* industry was seriously flagging. Ironically, his words mirror the situation that is being experienced today:

exports of *tsumugi* are falling off because of failure to adapt to changes in Japanese taste, and new ideas in design, perhaps new weaving techniques might revive, and expand the industry. There is a strong probability that numerous Amami handicraft products might compete in the export market, if skilled industrial designers were to concentrate upon improved quality and aesthetic appeal (1952:39).

Yet after the war and in line with Japan's 'miraculous' economic recovery, the industry regained its pre-war output. The allied forces saw the potential of the industry for economic development, supplying US investment grants, support that was continued upon revision in 1953 by the Japanese government who promoted the advancement of technology (ibid:38). From a position of economic weakness, traditional craft industries invested in technology as a way to shore up their future. This allowed the *tsumugi* union to introduce more chemical colours to contrast with

dorozome, appealing changing consumer tastes on the mainland (Tanaka et al.2005:103). In addition, the *tsumugi* industry in Kagoshima (begun by Amamian migrants) recovered more quickly. As such, competition within the market improved the quality of the cloth in both producing regions, prompting more willingness to break from traditional forms and patterns (ibid:183).

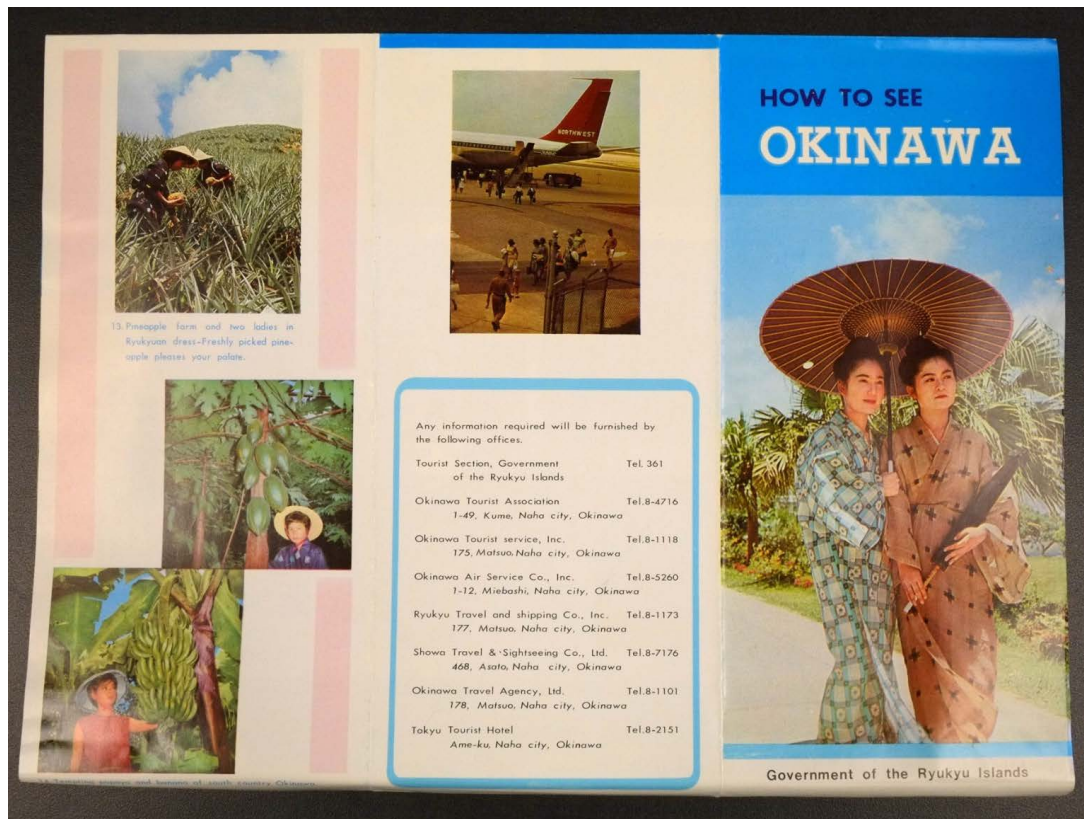


The complexity of *tsumugi*'s construction accounts for the high cost that *tsumugi* has always commanded, from a minimum of 6000JPY (46GBP) during Douglas Haring's time in Amami (1952:42), to today's prices in Tokyo of approximately 333,000-666,000JPY (2300-4600GBP). Despite its high cost, a production peak of 290,000 *tans* (rolls) a year was reached in 1972 (Tanaka et al. 2005:103). This peak coincided with Amami's tourism boom, as the Amami Islands were the southernmost Japanese territory with a desirable combination of sun and sea, prior to Okinawa's 1972 reversion from the US to Japan (Song and Kuwahara 2016). The people of Amami speak wistfully of this period, telling stories of hordes of tourists arriving by ferry to buy multiple *tsumugi tanmonos*, and creating local revenue by drinking in the *izakayas* (restaurant bars). Tanaka et al. suggest *tsumugi*'s popularity came about because post-war, the public had 'a strong nostalgia for the good old days again' –

handwoven *kasuri* patterns were suitably ‘retro’, thus *tsumugi* sales rocketed (2005:184).

This nostalgia and its subsequent monetization, has been documented by the aforementioned Marilyn Ivy, but also Jennifer Robertson (1991), through the phenomenon of Japan’s *furusato* movement. Translating directly as ‘old village’, but in sentiment meaning ‘closer to “home” or “native-place”’ (ibid:13), *furusatos* are ideal villages set within traditional rural landscapes. Tapping into nostalgia for one’s own ‘native-place’, Robertson explains how *furusatos* became tourist destinations. Being symbols of ‘motherly love’, they sought to pacify societal anxiety caused by rural depopulation, environmental destruction and urban development that occurred in the post-war period (ibid:20-28). Concurrently, rising out of the 1970s ‘oil shocks’ which destabilized the economy when global petrol prices rocketed, Robertson claims the Japanese were reminded of their dependence on imported raw materials, which prompted ‘a revaluation of Japanese “tradition”’ (ibid:28-29). As such, there was a desire to attain self-sufficiency based on the ‘harmonious tranquillity’ that existed in the ‘old villages’ before ‘the onset of westernization, industrialization, and urbanization’ (ibid). Robertson’s argument is supported by Ivy, who describes the surge of post-war interest in the folkloric. She suggests that ‘a nostalgia for a Japan that is kept on the verge of vanishing, stable yet endangered (and thus open for commodifiable desire)’ (1995:65) meant a market for ‘vintage japan’ was maximized in the advanced capitalist context of a country with sudden disposable income.

The renewed popularity of traditional local commodities could be said to coincide with the place-based tourism movement. Ivy’s ‘vintage Japan’, sold through various internal and international tourism campaigns from promoting Japan Railways in 1936 to the ‘Cool Japan’ of the 2000s, have usually been accompanied by the ‘cultural icons’ of women in kimono (Milhaupt 2014:239). *Oshima tsumugi* was the quintessential Amamian commodity from a remote island with many ‘intact’ cultural traditions. The combination of its ancient past, superior handmade quality, and colour palette of browns, blacks and beiges matched the aesthetics of the Shōwa era (1926-1989).



Okinawan promotional leaflet c.1960, aimed at American tourists.

The social and economic reality of the post-war period that drove the kimono industry was explained by Koki, who I introduced in the introduction. He first came to Amami when working for a Tokyo-based design firm, specializing in the development of traditionally crafted products. Born and raised in Tokyo to an affluent family, he moved to Amami in 2017 disenchanted by commercial design, wanting to use his hands again. When I met him, he had been learning *Oshima tsumugi* techniques for six months:

During the 60s to the 80s when it was booming, the kimono was selling a lot because my grandparent's generation, they could never afford to buy anything luxury before. They went through the war, then after the war luxury was not in their dictionary, it was about putting rice on the table ... But in the 1970s and 1980s those people who always wanted to wear silk and kimono, they could finally afford to buy those things because the country became rich. [But if] that generation becomes older then that means the industry also sinks.

Kimono scholar Terry Satsuki Milhaupt (2014) explains that during the war and throughout the US occupation kimono were bartered for food and basic material goods, since Western-style clothing became increasingly domesticated. She suggests this was a time of ‘revolutionary change in the symbolic and material value of the kimono [marking] the moment when its meaning was transformed from an everyday garment into a largely ceremonial costume’ (ibid:190). Milhaupt even goes so far as to suggest that its negative connotation with luxury during the war, ‘inadvertently laid a path for the garment’s resurrection as the country’s national form of dress’ (ibid:239). As Koki described, when fortunes changed many families spared no expense in acquiring luxuries, meaning the purchase of formal kimono for ceremonial occasions became a marker of the rising wealth of the country.

During its peak *tsumugi* developed into a highly lucrative industry, bringing wealth to many ordinary islanders. The *tsumugi* weavers were typically women, and a good weaver could earn around 400,000-500,000JPY per month (around 2800-3500GBP), making more money than their husbands and affording the opportunity to send their children to university. Eriko Kanai’s grandmother and mother were skilled *tsumugi* weavers, and Eriko-san herself has gained a reputation for her proficiency in dressing others in *tsumugi* kimono:

There used to be a saying “three daughters can bring a fortune” in the Shōwa 30s [1955-1965]. Because it is an isolated island, people used to send a male child to the mainland for him to study properly. Female children who stayed on the island weaved and earned a lot of money to fund the education of the male child. That’s why there’s a lot of hairdressers and delicatessens in the town of Naze. “You don’t have to cook, just weave!” they were told ... As for the hairdressers, the weavers treated themselves and went out to have fun once they finally finished weaving a *tanmono* and received the money (Eriko, 58).

It appears that weaving *tsumugi* was principally the reserve of women simply because of the traditional divisions of labour. With most homes owning a loom, weaving could be done around child-rearing and housework, while the heavy-duty jobs – dyeing or *shimabata* weaving – were left to men. The importance of women’s labour to the *tsumugi* industry reflects the wider position of women in Amamian society. Since Amamian female priestesses (the *Noro* and *Yuta*) had authority over aspects of both spiritual life and governance for centuries, women have held relatively equal social

standing to men and continue to do so today (see Chapter 4). While this observation is based purely on those Amamians I spoke with on the subject, women being the main earners in the household did not seem to cause any substantial rifts. As Eriko-san says: ‘The Shachō acts as if he is powerful, but at the end of the day, he is in the hands of women!’ It is important to note that *tsumugi* was rarely worn by ordinary islanders prior to the boom period; *tsumugi* was for earning money, not for wearing. Nevertheless, regional nostalgia did eventually reach Amami, coinciding with the islanders increased financial mobility, meaning they too were able to afford the products of their labour.



Eriko Kanai wearing *tsumugi* at her friend's wedding in the 1970s.



Oshima tsumugi was one of Japan's most luxurious textiles – its reputation was such that 'Oshima' developed into a generic name for the cloth. In the 1960s, it was in such demand that Korean factories began copying and selling '*Oshima tsumugi*' cheaply to the Japanese market, using industrial production methods and cheap labour (Tanaka et al. 2005:193). This meant that a substandard quality threatened to flood the market, damaging the reputation of Amami's output. Even today, there are whispers under the breath about individuals who sold Korean cloth during the boom period, trying to pass it off as the *honmono* (real thing). They were subsequently discovered and punished by gossip that still lives on fifty years later. As a result, *tsumugi* was designated a *Dentou Kougei* (traditional craftwork) by the government in 1974 (ibid:185), renamed 'authentic Oshima tsumugi' and given an official seal distinguishing it from 'Oshimas' produced elsewhere (ibid:73). This seal is only applied after a *tanmono* has undergone inspection at Amami's *tsumugi* union (above and below). This is carried out by an inspector who visually examines the length of the cloth by running it through his fingers to check for faults or inconsistencies, to ensure he is satisfied with its quality and authenticity.



Authentication thereby differentiates a cloth that has the look and feel of something that could have been produced elsewhere by machine with that which has been made by hand in Amami. The inspector can often tell by eye or touch who has woven the cloth or dyed the yarn, ‘mooring’ its production in the local community. The name of the weaver (but not the dyer) is attached to the final label alongside the authentication seal. Anthropologist J. P Warnier (2013), with his discussion on *produits de terroir* (‘the products of a given locality’) in France suggests after Appadurai (1990) that ‘unmoored things’ such as

‘commodities’ or ‘cultural items have to be domesticated and locally moored’ (Warnier 2013:85). As he explains, processes of globalization have ‘gone hand in hand with the politics of heritage on a worldwide scale’ (ibid). But assigning commodities to a region, giving them authenticity, is ‘a means to produce locality ... to create an inside and an outside with clear criteria of belonging or not belonging’ (ibid).

I observed this skill of identifying individuals in the make of cloth with inspectors of the Scottish heritage textile Harris Tweed on the Isle of Lewis during fieldwork in 2015. The Lewis inspectors told me that they can recognise patterns in the cloth’s tension that reflected a particular weaver, how energised they were during production, or moments where they took a break or stopped to greet the postman. But, as with Lucy Norris’s observations with handloom weavers of khadi cloth in Kerala, India, Harris Tweed manufacturers must ‘remove all traces of the body and mind of the

weaver' since 'every inch of cloth can reveal the weaver's mood, [whether] they are tired, distracted or careless' which can lead to a decrease in the cloth's value (Norris 2011:291). In contrast, *Oshima tsumugi*, rarely fails inspection since the consistency of the production technique has reached a level of near perfection. Rather than inconsistencies being markers of inferior quality, recognisable signs of perfection achieved by the craftsperson were qualities that made the cloth outstanding. This demonstrates a key feature of Japanese craft preservation, where value is located in the skills of individual or collective groups of artisans rather than the physical object itself.

From the 1960s onwards the Japanese state proactively created regional boundaries as a way to bolster domestic tourism and investment in national heritage. At the same time, this was the era of modernization, that saw huge change across many industries including farming as a result of the Green Revolution (Kelly 1986). Anthropologist William Kelly, through his research with rice farmers in Japan's Tohoku region, explains that the aim of Japan's Green Revolution was to decrease price while increasing yield. This meant updating infrastructure, introducing mechanization to cut labour costs and encouraging the use of monoculture varieties and commercial chemicals. This approach stands in stark contrast to the argument to mechanize craft as was played out in regard to the *karasusu* (clay crushers) of the Onta valley or the rejection of machine woven *tsumugi* cloth that was imported into Amami. One might recognise that in reducing the costs of basic commodities (such as food) the public would have more disposable income to spend on luxury items, in effect stimulating the national economy. But by slowing the rate of change in the craft sector, prohibiting new technology and regulating make, the government was able to fix high labour costs in different geographic regions to maintain what Marxist geographer David Harvey calls 'structured coherence' (2001). This concept can be loosely defined as the social, cultural, economic, and geographic infrastructures that support capitalist systems locally (Jessop 2006). Rather than allowing competing technological advancement to lower the price of craft, innovation in the craft sector was frozen and quality and authenticity tied to hand labour and intangible skills that were geographically fixed.



A poster of regional, traditional commodities produced in south Japan stuck to the wall of weaving school. *Oshima tsumugi* is just left of the fire extinguisher.

Consequently, in order to keep the price of craft affordable, it was increasingly subsidized by various government preservation schemes since the state recognized the abstract value of craft exceeded its commercial value. This suggests that the government were speculating on the future value of craft. i.e. the role it plays in strengthening national identity, bolstering tourism, even whether it might be valued for its low environmental impact. Although one could argue that environmental properties might not have been taken into consideration in the mid 20th century, it is certainly the case now that the government can use the sustainability of Japanese craft as a selling point in international markets. The maintenance of *Oshima tsumugi's* status as a luxury product through high labour costs benefitted local communities while the country had wealth – however, problems for the industry began when the economy crashed and sales of *tsumugi* followed.

Finding new purpose in tsumugi's techniques

The burst of Japan's financial bubble in the 1990s, alongside changes in fashion as Western clothing dominated, has seen loss of interest in wearing and buying kimono, meaning the *tsumugi* industry has declined year-on-year since the 1970s. Mirroring Douglas Haring's comments from the 1950's: "of failure to adapt to changes in Japanese taste, and new ideas in design", *Oshima tsumugi* has also gained a reputation for its dated Shōwa era aesthetic, not helped by government regulations restricting innovation. In second-hand kimono shops on the mainland, *tsumugi* kimonos are found piled high (see Valk 2020). Kimono that cost a small fortune when new now sell for about 10,000JPY (70GBP). Koki's judgement on *tsumugi* illustrates an opinion shared by many people I spoke with in Japan, and also those learning its techniques:

I find that if *Oshima tsumugi* was representing my generation, I would participate but [the previous generation of makers] were doing it for the money right? And they were selling it to older generations, and that's their taste ... I don't find that so exciting... I want to make something that excites me, but what excites me about *Oshima tsumugi* is just its techniques.

Given the substantial economic impact that the *tsumugi* industry had during the 20th century in Amami, and its success in bringing notoriety to the culture and history of

the island, it is little wonder that today such a feeling of loss is felt for the way things were. But the desire to change fortunes is most keenly promoted by those families that were once so prosperous; this is mainly the *orimoto-sans* (weaving companies).⁸ These are the manufacturers of *tsumugi*, those responsible for organizing and preparing for each stage of production, then selling *tanmonos* to mainland dealers. One *orimoto-san* told me that during the peak they produced around 800 *tanmono* a year, employing 100 weavers working exclusively for them. Today, the same *orimoto-san* produces only 100 *tanmono* a year, employing just fourteen weavers, with almost all of these women over 70 years old. Beyond weaving and dyeing there are many specialized procedures in between. For example, there are only five men (also over 70) in Amami working on the *shimebata* loom, with no Amamian apprentices in waiting. The *orimoto-san* predicts that within five years they will have to close their business due to the decrease in orders, but more significantly as a result of the lack of skilled craftspeople.

As a consequence, there is a general resolve amongst craftspeople that prospects for recovery are not good. This is evident in the fact that many craftspeople have not maintained the family line in knowledge transmission, being aware that the craft is not financially resourceful and subject to precarious fluctuations. Instead, many craft-working families look to secure better futures for offspring through higher education, or by advising their children to seek alternative employment. As mentioned previously, this was the case at Kanai Kougei, where the Shachō and Eriko-san discouraged their own children from pursuing a *tsumugi* career. In this regard, the textile has been a victim of its own success. As Eriko-san explains:

Most places are planning to close when the artisans disappear. Quite a number of them have already shut down their businesses. That's why the jobs these factories used to handle come to us. We are getting busier the past couple of years. Factories cannot avoid but to close down when they have no successor, and the artisans are too old to handle the amount of dyeing work.

⁸ This is a local term being a combination of two kanji's 織 (*ori*) – meaning to weave and 元 (*moto*), taken from *iemoto*, meaning a family company (see below). The honorific 'san' used to show respect to individuals is also extended to tradespeople.

Before I continue to discuss the flow of people who I propose are revitalizing the practice of *kusakizome* and bringing new purpose to *dorozome*, I will reflect on the argument as I have presented it so far. I have traced the recent history of the *tsumugi* industry, and have done so to highlight that traditions are subject to influences outside of their geographic boundary that lead to innovations that sustain local industry. I have demonstrated how new ideas, technology and materials have been integrated into existing Japanese textile practices since at least the Meiji era, throughout Japan but also with *Oshima tsumugi*. These developments did not dilute how textiles are used and valued by the local community, but have instead strengthened their economic potential. While technological innovation was put on hold after these craft objects were threatened by industrial manufacture in the 1970s, small changes have been instituted industry-wide through the adoption of new materials and forms, and isolating processes such as dyeing to be used in a public workshop model. This thesis, that “living tradition[s]” are able to “traverse history” (Sahlins 1999:408-9), is in line with the opinion of anthropologist Marshall Sahlins, who has argued against a preservation strategy that favours historicity.

Sahlins launched his polemic as a result of a debate that took hold throughout the 1980s and 1990s, when scholars in the social sciences looked to ‘debunk’ traditions that claimed unchanged heritage. These scholars argued that many traditions are invented, done so with nationalist sentiments or money-making ambitions (See Hobsbawn and Ranger 1984; Vlastos 1998.) Sahlins instead considered what traditions meant to those who lived them, believing their ‘invention’ an ‘inventive’ combination of disparate properties rather than bounded inauthentic ‘cultural things’ (ibid:407). He hypothesized that the ‘inventiveness’ of tradition was often constructed from manifestations of older practices, evolving alongside social, economic and environmental change, beyond the control of their makers. If one wanted to ‘debunk’ *Oshima tsumugi*, a cloth that claims a heritage of 1300 years, it could easily be done. The way it looks and feels has changed considerably since it was commercialized after the Meiji Restoration. This is the result of technological advances, new trade in materials, and global fashions. However, Sahlins proposes that traditions are the way people ‘indigenize modernity’ (ibid:410), making them socially valuable. He calls these ‘visible signs of an invisible constituting presence. And, as sacred, they give a people commitment as well as definition... a sense of shared existence as well as determinate boundaries’ (1999:413).



Tsugumi-san, a trainee at the *Oshima tsumugi* weaving school

This ‘sense of shared existence’ is perhaps what has drawn a new generation of dyers to Kanai Kougei. Although Yukihiro-san returned to Amami and gave the business a contemporary partner, it is interesting that he did so against the advice of his family. The main issues experienced within the *tsumugi* industry today are the low wages and poor labour conditions faced by the craftspeople (see Chapter 2). A part-time dyer earns the Japanese minimum wage of 958JPY per hour (about 7GBP), while a full-time *tsumugi* dyer will earn approximately 35,000-40,000JPY (about 250-300GBP) per 6-day week. Since they are considered ‘freelance’, they also lack the security of regular income, the benefits of lifetime employment, or sickness and holiday pay. Moreover, their freelance status means that it has been difficult to organize government support, since skill and hours across the processes are so diverse (see Chapter 2). In addition, the work is physically demanding, repetitive, and requires good health, whether this is strength and stamina for dyeing, or good eye-sight and dexterous hands for weaving. It also takes a significant investment of time and money to train, and when wages (or government stipends) are low, it is difficult for apprentices to sustain themselves for the minimum of five years required to master a foundation. As a result, many quit before training is complete. Nevertheless, weaving still remains the most desirable *tsumugi* technique to learn, as Eriko-san explained:

That's why Japan and Kagoshima Prefecture want to create a training school for the residents of the island to be able to acquire weaving skills. But the keen people who come to learn are typically from the mainland – art school graduates who love textile work.

In certain respects, this reflects the situation as it exists with the dyers at Kanai Kougei. It is difficult to attract young local employees when they can earn better wages for less physically demanding work at somewhere like Family Mart, the ubiquitous convenience chain that has branches across Japan and throughout the island. However, Kanai Kougei is exemplary in that it is both a family business and one that readily employs members of staff from outside of the local community – evidenced by the ease by which I gained access as an anthropologist, with no formal introduction. This openness to 'outsiders' is quite unusual in traditional Japanese crafting businesses, which have historically been structured around the *iemoto* or household system.

Now almost 30 years old, Dorinne Kondo's ethnography *Crafting Selves* (1990) can still be drawn upon to consider the circumstances in Amami in regard to *iemoto*. Kondo explores gender relations in a Tokyo sweet shop, arguing that the *iemoto* system still exists in Japan, despite it being dismantled during the post-war constitution. Kondo explains that while the word *ie* can designate both a physical house, or the household line (ibid:122), in the Japanese context '*ie* are best understood as *corporate groups* that hold property (for example, land, a reputation, an art, or "cultural capital") in perpetuity' (ibid). She argued that far from being 'defunct', the concept of 'company as family' continues to operate either literally or symbolically (ibid:121).

Although I was told that Amami has historically followed a *shima* (island) system, where the islanders worked together to represent a large household – a mentality that still remains today – it could be argued that on a smaller scale the *ie* system has been absorbed from mainland Japan.⁹ Kondo says that the 'core' of such a group may consist of kin – a mother and father who are responsible for the success of the

⁹ The *Shima* system is a 'co-op' in Amami, but differs significantly from my understanding of a co-op since profits are not evenly distributed. Rather it follows the Oxford English Dictionary definition of 'working together or with others to the same end'.

business, who will pass it on to their heir, who historically has been the eldest son or an adopted 'son' gained through marriage or law (ibid). Kondo gives several examples from her fieldwork of businesses closing when a successor cannot be found, as Eriko-san demonstrated too when accounting for the number of dyeing businesses shutting-up shop. Although Yukihiro-san did eventually return to the family business, the Shachō's continued acceptance of outsiders across his tenure has seen Kanai Kougei gain access to social and business networks outside of Amami. This stands in contrast to many of the other *tsumugi* businesses. As the Shachō described:

I think, *kuru mono kobamazu* ('accept one who comes to you'). So I accept anyone who comes, and *saru mono owazu* ('don't chase one who leaves'). I'm connected to many different people – including Kazuko-chan or Akiyo-chan [two Kanai Kougei dyers, from Tokyo and south Amami respectively] – and that sort of thing expands and continues, right?

This access has no doubt been aided by Kanai Kougei's significant media presence, the company's popularity stemming from the Shachō's attitude. The workshop has built a reputation that has seen TV networks NHK, the BBC, and CNN visit, among others, their programmes helping to promote both *tsumugi* and *dorozome*, bringing in new people and business. During the time of my fieldwork Japan Airlines (JAL) filmed a TV commercial at the workshop that drew heavily upon Japan's nostalgia for traditional craft: A young girl dyes a handkerchief with her father who is a *tsumugi* craftsman. She returns home (on a JAL flight) as an adult with the same handkerchief that she holds dear. During the filming the Shachō made an effort to show the actor how to dye 'authentically', giving direction by showing him how to stir up the mud in the *dorota* (mud-field) with his boots and distribute mud across the yarns (photo below). Asking Maiko-san – the Shachō's daughter and company's bookkeeper – about these visits, I was shocked to hear that Kanai Kougei did not receive a location fee from JAL. But, as echoed in Kelly's research (1986), whose farmer participants who were also renowned *nō* actors, the Shachō seemed 'willing to risk the dangers of fetishization for the edge that their notoriety gives them' (ibid:612). Although this relationship might be read as commercial exploitation, exploiting the nostalgia for folk tradition in Japan has value that lies beyond only the financial.



Consequently, the Kanai family have used their notoriety to extend their *ie* by picking up craftsmen as dyeing houses closed, and attracting new employees who are similar to Yukihiro-san in their keenness to learn the craft. Kondo says that entry into the *ie* ‘means belonging to an institution that links one to the past and projects one into the future’ (1990:122-123). Kanai Kougei sits very much at this meeting point as the Shachō takes care of *tsumugi*, while Yukihiro-san leads apparel. They employ three full-time and one part-time *tsumugi* dyer, all Amamian men over the age of 50. In addition, the workshop has three men and three women aged between 24-41 working on apparel, while Eriko-san and Maiko-san oversee public workshops and administration.

This structure and mix of employees is significant as the new generation apparel dyers are all U-turners (those who have ‘U-turned’ back to the countryside like Yukihiro-san) or I-turners (meaning *Inaka*-turn, the Japanese word for countryside). U-turners and I-turners are typically individuals and families who have rejected more prosperous urban living, hoping for a more fulfilled existence in the countryside. Anthropologist Susanne Klien (2016; 2020) suggests that this reverse migration, bucking the rural-urban trend that has gone hand-in-hand with industrialisation, has been prompted in Japan by negative economic growth, twenty years of deflation, and the triple disaster of 3.11. Klien suggests that, prompted by job insecurity, there are

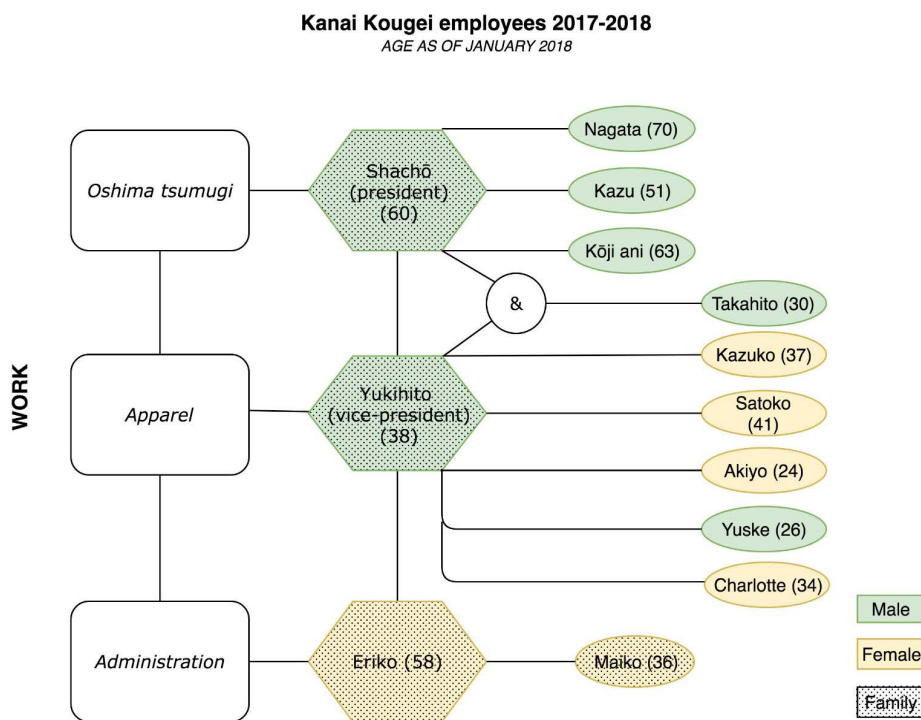
those among Japan's youth who are rejecting the 'orthodox *Sarariiman* (salaryman) mode of work and life' (2016:40) turning their backs on previous generations' inclination to over-work and the resulting material affluence. Instead, many young people are embracing more precarious forms of subsistence that value 'self-expression' and 'quality of life' (Inglehart 1995:57). These lifestyles maintain city relationships assisted by the internet and social media, but also foster local social networks that ultimately lead to a richer engagement with an individual's community and environment (see Chapters 2 & 3). My participant Koki could be seen as a prime example of such a lifestyle shift: he moved to Amami in 2017, leaving a secure, but stressful job working for a Tokyo-based interiors company that commissioned traditional craft products. He explains:

One thing that was really huge for me was when the earthquake and the nuclear disaster happened, that kind of changed my way of thinking completely. That really destroyed everything, all those superficial things, they disappeared really easily. And then [I thought] maybe I should focus on something that is more a core part of things, that doesn't just get washed away, perhaps.

The new generation dyers find they value work and the skills they are obtaining more than high earnings. Yet they only manage to survive on minimal resources because the cost of living is low in Amami. In addition, people tend to foster close relationships with their co-workers and neighbours, leading to the exchange of material supplies such as food, clothes and even childcare. Functioning like an *ie*, the Kanai family extend access to their Amamian networks of knowledge to those migrating from the mainland. Access to this knowledge is often cited as a problem by I-turners in other areas of Japan, who find it difficult to connect with the local community. Whether it is finding an employee an affordable car, recommending the best place to collect seaweed or dressing one's family in kimono, there will be a member of staff at Kanai Kougei willing to assist those new to the island.

Two of Kanai Kougei's dyers are working mothers, Satoko (41) from Kyoto and Kazuko (37) from Tokyo who value this support network highly. The third woman dyer working at Kanai Kougei, Akiyo, is a 24-year-old Tokyo-trained fashion graduate from south Amami. The employment of Satoko, Kazuko and Akiyo reveals a further evolution of tradition in that gendered labour roles, that became entrenched in the

mid-20th century, are also becoming outdated. As I can testify, *dorozome* is physically demanding and for full-time employees working a six-day week, it is not for the faint-hearted. The new generation dyers are strong women in body and mind, following an older Amamian tradition of women with rights equal to men. This reversal of gender roles is working both ways however, as Koki has been training at the weaving school along with another man, in an activity that has historically been the reserve of Amamian women.



Takahito-san, 30, (below) who U-turned back to Amami after a string of failed job prospects in the mainland, told me that his primary motivation in joining Kanai Kougei was to sustain Amamian tradition. He described that when living in Fukuoka his friends were confused as to why he was there, since ‘Amami was so great’; it had its own culture and unique nature, but he was embarrassed to admit he knew very little about it. One of his friends was working to preserve the Hakata Gion Yamakasa *matsuri*, a carnival-style event that involves carrying a huge float through the streets of the city. Takahito-san was so impressed by his friend’s commitment to his own hometown’s traditions that he decided to return to Amami and dedicate himself to a similar cause. In his hometown of Yamato-son, a school friend had already been

working on a *matsuri* for the old people of the village and he felt ashamed that this person, who was younger than him, had achieved so much, while he had selfishly wasted time on a string of part-time jobs on the mainland. He decided to set up an NPO (Non-Profit Organisation) to support the village's *hachi gatsu odori* (August dance). This he felt would sustain Amamian culture and generate community solidarity. But, realising that it would be difficult to sustain himself economically, he instead took a job at Kanai Kougei. He knew nothing about dyeing and had no prior interest, he simply saw it as a means to sustain Amamian tradition. I asked him why tradition was so important to him? He answered:

It's the way *tsumugi* is so particular to this area - it's something that can only be found here. Even for someone from outside, when you see this kind of thing [the *dorozome* with *tsumugi*] there's a feeling of a kind of chain – like a sense of lively energy attached to it.



When I first met Takahito-san, I was told that he was learning *kusakizome* so that he could open his own dyeing workshop in his village, which was over an hour's commute from Kanai Kougei. I had assumed that this was a business pursuit, but he

said that it was: ‘for the people from Yamato-son’. If he opened his own studio ‘there would be more chances for them to come into contact with this tradition.’ Yet later the plan had changed, he explained:

Since both Nagata-san and Shachō are quite old, we don’t know when they might not be able to keep going any more. So that’s our current situation, and within that context – if there were craftsmen who could do the work spot on, then even if I’m not here it wouldn’t matter – but that’s not the situation. I’m working as a dyer on the ‘Shima, but, make no mistake, there’ll come a time when things at Kanai Kougei won’t be able to go on any longer. And, here at Kanai Kougei people who can do *tsumugi* dyeing are necessary, and yet there isn’t really any talk of bringing in more new ones. [If you want to get into the craft of *tsumugi* dyeing] they have to teach you here, and then if you think “Actually this place isn’t for me,” and you leave, then there’s no one.

The point that Takahito-san was making is that he is learning the skills now while there are people to teach him, and when the time comes for the older craftsman to retire he will be the only holder of this knowledge since he is the only apprentice. In a sense he is binding himself into both the history and future of the craft. As it turned out, Nagata-san who was still working into his 70s, died suddenly from lung cancer in May 2019, never reaching retirement. What can be learnt from the younger craftspeople at Kanai Kougei is that while the past generations of the 1960s-1980s boom era bought into tradition through the purchase of commodities as a way to divert uncertainty, younger generations are more interested in pursuing a career in craft and making the commodities themselves. Eriko-san told me that Takahito-san’s apprenticeship is a draw for the *orimoto-sans*; they are sending more work to Kanai Kougei because they see a future for *tsumugi* at the workshop.

‘The nail that sticks out’

When the Shachō started public *dorozome* workshops in Amami in the late 1980s, in his words: ‘it actually angered the other dyeing companies’. Today, all of Amami’s dyeing companies offer public workshops that financially support their business. Similarly, in the 2000’s, Yukihiro-san faced significant resistance from the *tsumugi* union who were concerned that dyeing ‘cheap t-shirts’ would devalue *dorozome* and subsequently *Oshima tsumugi*. As he describes:

Our generation does not wear kimono so often. I was doing it thinking that it would be nice if there were *tsumugi* for the everyday – it is a thing to wear – the same as kimono.¹⁰ But from the point of view of the (*tsumugi*) industry, the entire opposite opinion bounced back to me. I was quite surprised.

In Yukihiro-san's words, apparel became 'the nail that sticks out'. This refers to the Japanese saying 'a nail that sticks out must be banged down' – a metaphor for Japanese social tendency to favour and preserve collective harmony over individual uniqueness.¹¹ Nevertheless, he persevered:

The side of apparel works as a job and I thought it would be better for *dorozome* to have the connection with young people. I just had to continue doing it for the time being and gain their trust, yes. Did I gain their trust then? Well, I wonder... I don't quite know if they approved of me or not, because how it works is different from the side of the (*tsumugi*) industry [being hierarchical] ... But now, the *tsumugi* union understands that Kanai Kougei is a place that does this sort of work. So if there is a request, they would say: "Right, please go and speak to them." It wasn't always like that at the beginning.

Yukihiro-san highlights that in the case of *Oshima tsumugi*, resistance to change in more recent years has been top-down, while innovation has been bottom-up. Historically, the *tsumugi* industry has been based on a strict hierarchy with the dyers at the bottom. But by creating a more hybridized business that welcomes people, trade and ideas from outside of the community this hierarchy has been severely disrupted. Yet, as I have argued, traditions have always been pushed forward by external forces that should not necessarily be considered threatening. Japanese craft processes continue to combine superior hand skills with innovative technologies. This is evident by the number of historic textile processes that are still being carried out across the country today, even if output has dramatically declined.

¹⁰ The translation of *kimono* is 'thing to wear'.

¹¹ Translators note.



The sales gallery at Kanai Kougei.

On days when Kanai Kougei was overrun with tourists partaking in dyeing workshops, they would inevitably disrupt workflow. While this was often frustrating, being a point of contention between the Shachō and Yukihiro-san, I was told that tourists liked being in an environment where ‘things to wear’, whether it be kimono yarn or t-shirts, were undergoing production. Kanai Kougei is an exemplary case study being that it is ‘an institution that links one to the past and projects one into the future’ (Kondo 1990:122-123). This is through its intimate connection with *Oshima tsumugi*, a cloth likely to become a *Mukei Bunkazai* supported by government stipends; but also as a place where workers, visitors and clients can imagine a future for the craft. It is a place where innovation has been embraced in the face of local resistance, the Kanai family becoming pioneers in the democratization of a luxury craft process. By establishing a symbiotic relationship between *tsumugi*, apparel and public workshops, the family have created a precarious but functioning business that at present is prospering. Rather than choosing between the maintenance of traditional practices, or innovating to ensure long-term sustainability, Kanai Kougei show that it may be possible to pursue both.

Throughout this chapter, I have outlined the history of *tsumugi* to show that flows of ideas, materials, technologies and people can assist in the maintenance of tradition. In the following chapters, I will consider in more detail the global environmental, economic and political conditions that have prompted a renewed interest in consuming but also making traditional craft objects. This case study demonstrates that the economic and cultural importance of *tsumugi* can be detached from the kimono as a cultural object and commodity, providing alternative streams of income through a process such as *dorozome*. As Yukihiro-san says: ‘With the case of *Oshima tsumugi*... what is important is not the fabric – it is the background, Amami’s nature and the wisdom of the people who made it. That is what should actually be endorsed.’





Chapter 2: The alchemy of producing colour



When I arrived in Amami in 2018, Yukihiro Kanai had two young boys and his wife Reiko-san was heavily pregnant with their third child. Even as a busy father and craftsman responsible for Kanai Kougei's apparel business, he made time to help me find a place to live (and act as my guarantor), buy a car, locate a doctor's surgery, and register at the town hall – a leap of faith, since we were only distant acquaintances. We had met in February that same year at the MONO JAPAN tradeshow in the Netherlands. He introduced me to *dorozome* via a practical workshop, and his warm and open manner when chatting afterwards left me confident that Kanai Kougei would be a welcoming fieldsite. Aged 38 at the time of my fieldwork, he was born in Amami but left the island for Tokyo after graduating high school to pursue a career as a sound engineer in the music industry. His first passion is music, having extensive knowledge of Amamian *Shima uta*, but also an eclectic collection of contemporary and historical global music that plays out across the workshop buildings, balancing the Shachō's talk radio. After training at college, he struggled to earn enough money to get by, supplementing freelance work with a job at an *izakaya* (a Japanese restaurant-bar) – a common occurrence, as I was told, in this line of work.

When he left Tokyo in 2004, he returned to Amami with a desire to ‘think’, but stumbled into the family profession almost by accident. He had never intended to quit music, but when passing time in the workshop he discovered a skill (and love) for making colour, and realised there was a demand for his dyeing services. By his own admission he created a job for himself, following up with enquiries that had gone unanswered at the workshop and spreading the word among designer friends in Tokyo. This form of ‘job creation’ in the creative industries is described by cultural theorist Angela McRobbie as being ‘both planned through “enterprise culture”, cultivated by neoliberal governments in Europe and North America since the 1980s, ‘and completely unplanned in its cultural outcomes, the signs of which stretch across urban landscape, bringing colour and vitality to run down, deindustrialised sites and spaces’ (1998:184).¹ In Japan however, it was rural regions with their wealth of traditional practices that were primed for regeneration in the early 2000s, as local and national government encouraged a reverse migration movement – urban to rural – giving individuals but also whole regions the opportunity to reinvent themselves.

Beginning in the 18th century, industrialisation’s spread across the developed world has encouraged a flow of labour from the countryside towards work in cities. This process began in Japan with a period of modernization ignited by the Meiji Restoration around 1868, but accelerated in the post-WW2 period causing an out-migration from the countryside that by the 1960s affected around 60% of Japan (Lützel et al. 2020:1). Leaving behind an aging demographic, the flight of youth caused a crisis of rural depopulation and, lacking in taxpayers, local infrastructure in depopulated regions was financially supported by the state. After the burst of the bubble economy in the 1990s that caused significant instability in the labour market in Japan, increasing numbers of city dwellers acted on rural repopulation initiatives that ranged from the establishment of employment and housing advice centres, to the local prefecture providing resettlement assistance and monthly stipends to individuals. Some, known as U-turners, returned to the prefectures in which they were born or that their families traditionally lived in, while I-turners (*Inaka* (countryside)-turners) moved to places with which they had no previous connection to pursue more ‘fulfilling’ lifestyles through craft, agriculture or rural regeneration projects.² These projects did not reverse rural to urban migration enough to solve depopulation

¹ This would latterly be labelled urban gentrification.

² Hani, Yoko. 2001. ‘Easing the Way for U and I’. *The Japan Times*. 14 October 2001.

however, and anthropologist Bridget Love notes that by 2000, central government began to move away from a tax distribution system that used income from metropolitan centres to shore up depopulated regions towards an emphasis on self-reliance (2013:116). This led to the further degradation of local services in rural areas – the closure of schools, libraries, transportation networks – but encouraged increasingly inventive plans by local authorities to draw people back to their region.

The urban-to-rural movement gained pace after 3.11, the triple disaster of earthquake, tsunami and nuclear spill that unleashed widespread anxiety across the whole of the Greater Tokyo Area. The unfolding crisis led many of my participants to move to Amami either by themselves or with their families. While Yukihiro-san might be said to part of an earlier wave to return to the countryside, prompted by job insecurity, his friends Kitta-san and Sawano-san, the duo behind the naturally dyed clothing label KITTA whom I also met at MONOJAPAN, moved to rural Okinawa from Chiba Prefecture after 3.11. In a magazine interview Kitta-san describes how she was ‘so heartbroken over the fact that humans had contaminated beautiful nature’.³ She was pregnant, and uncertainty, particularly around food safety, was causing her and Sawano-san significant anxiety (see Chapter 3). They consequently moved their family and business to find value, as she describes, in the ‘joy of living’ (*ikiru yorokobi*). This term comes from the ambiguous Japanese word *ikigai* that has been translated into English as finding ‘that which most makes one’s life seem worth living’ (Plath 1980:90 in Mathews 1993:3) or finding ‘purpose in life’ (Klien 2020:68). Kitta-san and Sawano-san say that this is a sense of purpose they channel through the objects that they make and their processes of work, but that they also recognised within their appreciation of folk music, organic food, nature and sociality.⁴

Although my colleagues at Kanai Kougei did not express a desire to find value in the ‘joy of living’ as succinctly as Kitta-san, they communicated a clear sense that they sought an improved quality of life in the countryside. Their ideal was for life to be slower and less pressured than their experiences in the city, revolving around establishing good relationships with family, community and nature, while also accommodating their creative potential. Yukihiro-san, for example, started to cultivate an image of what type of craftsman he might be as his role at the workshop

³ ‘Kitta INTERVIEW 08 Okinawa’. *KŌSA*. 20 October 2017.

⁴ *ibid.*

developed. Rather than following in the footsteps of his father by training in the traditional art of *tsumugi* dyeing, Yukihiro-san sought to bring an element of Tokyo back with him to Amami and to develop an aesthetic that chimed with his own personal understanding of taste. This taste was encapsulated in his bookshelves housed in the company's gallery, where contemporary Japanese design and lifestyle magazines such as *Casa Brutus* and *&Premium*, who have featured his work at Kanai Kougei, are stacked alongside copies of *The Mingei*, a publication begun by the founder of the Japanese folkcraft movement Yanagi Soetsu in 1939. These sit alongside books on his favourite *Mingei* textile craftsmen Keisuke Serizawa (1895-1984) and his apprentice Samiro Yunoki (1922 –). Inspiring Yukihiro-san's own craftwork today, the work of these artisans is embedded in traditional Japanese craft techniques, but also display a creative freedom, a playfulness with colour and a love of global ethnology. Yukihiro-san has begun to make huge *noren* (sign curtains) using graphic block colours and natural indigo that he displays with smaller utilitarian objects when exhibiting his work. The location for these exhibitions might be a gallery or store in Tokyo, or a tradeshow such as Maison&Objet in Paris, where in 2018 he exhibited with other Kagoshima-based artisans in a project financed by the Prefecture. When not on display, he hangs his *noren* in the workshop's sales gallery where they complement a beautiful glossy guitar treated with *techigi* dye, a traditional Amamian back-strapped *teru* basket the colour of Amamian soil, and objects for sale including local beach coral dyed in a rainbow of colours, and *tenugui* (multi-use hand towels) arranged in tasteful palettes. These are positioned beside some of the clothes, textiles and objects that Kanai Kougei dye for clients, that resonate with Yukihiro-san's own aesthetic judgement.

Despite his creative ambition, as Yukihiro-san became more involved with the family business he began to care more about the future of the *tsumugi* industry and the aging craftsmen who he had known since childhood. Rather than supporting only himself and his growing family, he wondered about the possibility of expanding the workforce and employing younger people. Despite initially seeking men for this traditionally male work, he found that the part-time labour of Kazuko (37) and Satoko (41), two I-turn mothers from the mainland, provided a flexibility that suited Kanai Kougei when the apparel business was starting out. But he also found that he valued the creative discussion he shared with the female workforce, who were interested in problem solving and making things together. At the same time, he has been cautious

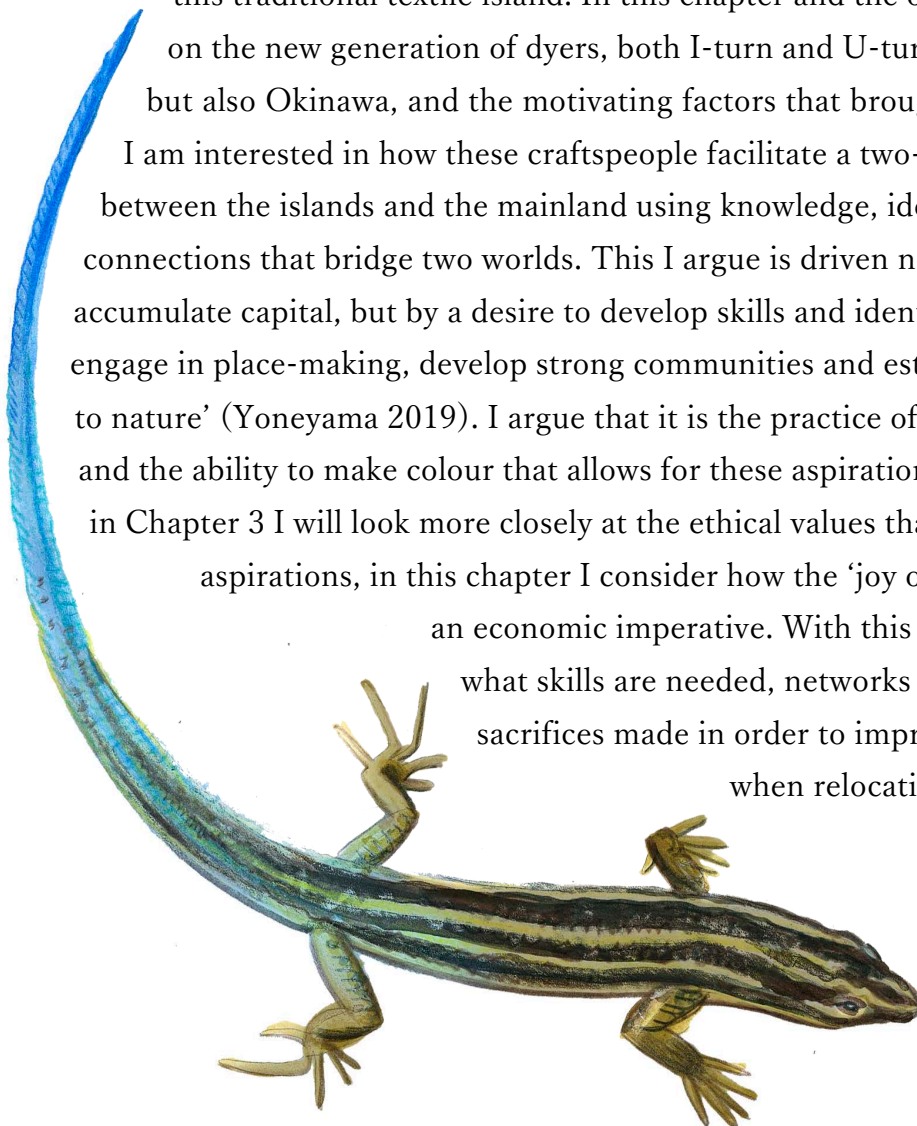
not to tread on the toes of those respected within the *tsumugi* industry (including his father) or to take on new staff or business opportunities, without devoting time and consideration to thinking through the consequences and to reach consensus with his family. This requires navigating both traditional work hierarchies that are firmly entrenched in Amami's textile industry, while moving among a more heterarchical system at play in the fashion and design world. Will a collaboration with Japanese retail giant Uniqlo to celebrate the (delayed) 2020 Tokyo Olympics or a hand-dyed souvenir scarf to be sold on JR Group trains promote Kanai Kougei, bringing new business and sources of income? Or do such collaborations degrade the integrity of the workshop's craftwork and the values of *Oshima tsumugi* which they have fought so hard to maintain?

What is striking about Yukihiro-san (and many of the other Japanese craftspeople that I came to know) is that he is both a romantic and realist. He has readily adopted the role of the craftsman who labours with focused intensity, but the apparel-side of the business necessitates risk, innovation, investment, identifying new markets and opportunities and implementing useful ideas. His example highlights that in order to be a successful craftsman today one also needs to be an entrepreneur. Yet rather than corresponding with the framing of the entrepreneur within business literature – one who acts at the frontier of new markets and financial risk with a view to ultimately reaping the profit – entrepreneurialism as I experienced it at Kanai Kougei could not be understood through the pursuit of personal wealth, since small-scale, traditional craft can rarely be financially rewarding. Instead, value is located in the pursuit of an improved quality of life for oneself and one's family within a craft community, and in the development of craft skills that inform one's identity. Importantly, for Yukihiro-san the drive behind these goals also encompassed the upholding of responsibility towards his community, revitalising local craft for the benefit of the island and taking pride in the ability to make natural dyeing economically sustainable. Economic sustainability was a point of contention discussed among the older craftsmen mentioned in Chapter 1, who lament the inevitability of *tsumugi* becoming a *Mukei Bunkazai* (Intangible Cultural Property), and the corresponding loss of *dorozome* as a business pursuit. In the of context of Kanai Kougei, pursuing the 'joy of living' is not therefore a selfish endeavour, but can be understood to have wider implications. Nevertheless, navigating the tensions that exist between being a craftsman and entrepreneur is no easy task since the goals one is aiming for – be they social, cultural,

environmental, personal or community-minded – still require financial capital to make them achievable. Difficult business decisions, like those involving Uniqlo or JR Group require negotiation, since engaging in the highly commercial allows craft to happen and vice-versa – even though the quality, scale and ethics are often mismatched. But negotiating these tensions also requires compromising on a daily basis; establishing where cuts can be made, time saved, materials replaced, overtime unpaid, workers exploited – to make enough profit to pay wages, buy materials, balance the books.

In the previous chapter I situated my research in Amami's *tsumugi* community, the 'embedded infrastructure' (Norris 2017:7) that guides the lives of craft-workers on this traditional textile island. In this chapter and the one that follows I focus on the new generation of dyers, both I-turn and U-turn residents in Amami but also Okinawa, and the motivating factors that brought them to the Ryūkyūs.

I am interested in how these craftspeople facilitate a two-way flow of capital between the islands and the mainland using knowledge, ideas, experience and connections that bridge two worlds. This I argue is driven not by an aspiration to accumulate capital, but by a desire to develop skills and identity as craftspeople, engage in place-making, develop strong communities and establish a 'connectedness to nature' (Yoneyama 2019). I argue that it is the practice of natural dyeing itself and the ability to make colour that allows for these aspirations to be realised. While in Chapter 3 I will look more closely at the ethical values that drive these aspirations, in this chapter I consider how the 'joy of living' is proceeded by an economic imperative. With this in mind, I question what skills are needed, networks established, and sacrifices made in order to improve one's quality of life when relocating to rural Japan?



Urban-to-rural migration in the era of neoliberalism

A minor reservoir of talent now unused occurs in the occasional highly-educated individuals who live the simple life of Amami peasants. Some have chosen this island and such a way of living to escape from “civilization”... [A] tactful approach might discover ways of utilizing the scholarly, scientific, and artistic talents of such individuals to raise Amami standards of living (Haring 1952:39).

Anthropologist Douglas Haring’s observation in 1952 that ‘a minor reservoir of talent’ were living the ‘simple life of Amami peasants’ demonstrates that I-turn migration to the southern Japanese islands is not necessarily a new phenomenon. Rather than going ‘backwards’ to escape ‘civilisation’ as Haring suggested, an accusation that hasn’t weakened over time (Parkins and Craig 2006:78), newly arrived residents see a future in the countryside, its community, customs, and environments, that is more conducive to their own health and that of their families. Reverse migration – urban to rural – is a movement increasingly being documented in post-industrial nations globally. In 1980 anthropologist Diana Forsyth published her ethnography that described ‘disaffected city dwellers,’ who resettled in Orkney, Scotland in the 1960s and 1970s. Forsyth explains that her ‘middle-classed’ participants left city professions not for economic reasons but to pursue a rural life that is ‘peaceful, quiet, friendly, safe, and natural, in contrast to the noise, dirt, anonymity, danger, and pressure of urban life’ (ibid:290). Anthropologist Susan Parman’s (2005) research in 1970s Lewis, Sharon Macdonald’s (1997) research in 1990s Skye, and my own ethnographic research carried out in the Outer Hebrides (Linton 2016) similarly documents incomers moving to depopulated Scottish islands. What these studies have in common are the incomers who seek nature, tradition and community, but often find it difficult to align their outlooks with those of their hosts. Their high expectations are dashed by the social, political and economic realities that have been experienced for generations by rural residents, those that prompted outmigration in the first place.

In the Japanese context John Knight documented the ‘salary-rejectionists’ (*datsusara*) (1997:241) of the ‘back-to-the-land movement’ in Kii peninsula, based on his 1980s fieldwork. Knight explains that in Kii local youth had migrated to cities such as Kyoto and Osaka in the Kansai region resulting in rural populations halving between 1955-1995 (ibid:239). With the help of the local authorities, city dwellers relocated to

depopulated villages to pursue the “peasant” (*hyakushō*) lifestyle’ and ‘natural farming’ (ibid:238), an approach to land management that rejects the use of chemicals, values soil health and is considered to have mental and physical healing power. Knight found that friction existed between locals and incomers who disagreed on farming techniques, but also lifestyle choices.

This literature in Scotland and Japan aligns with European ‘lifestyle migration’ documented by Benson and O’Reilly’s sociological research (2009). They define ‘lifestyle migration’ as ‘the relocation of people within the developed world searching for a better way of life’ (ibid:608-609). These tend to be ‘relatively affluent migrants who do not fit the stereotypical idea of a migrant ... do not compete for jobs, and tend not to be racialized as other immigrants’ (ibid.) The people that they interviewed followed ‘a narrative of escape’ (ibid) who were, by and large, searching for slow living, improved work-life equilibrium, access to affordable housing, community, and the health benefits of climate and nature (ibid:610). This growing body of literature spanning over 50 years explores migration in terms of choice – migrants search for better lifestyles in (often romanticized) rural idylls, from a position of privilege (see also Hoey 2006; Korpela 2014; Høyer Leivestad 2018); they typically have economic advantage over locals (savings, credit, wealthy city-based relatives), higher education and professional skills and access to – or the knowhow as to how to access – opportunities offered by local authorities. If popular media is to be believed, this movement is set to increase in the wake of the COVID-19 pandemic as societies globally consider shifting beyond the confines of the city in search of green space and lower living costs, facilitated by more flexible working patterns initiated in response to the limitations imposed by the virus.⁵

Sociologist Menelaos Gkartzios documented a similar happening in Athens, that he termed ‘crisis counterurbanization’ (2013:164), in the wake of the 2007-8 financial crisis. He documented those who relocated to the countryside as a result of Greece’s severe economic depression, mass unemployment, the breakdown of social care and infrastructural neglect by local authorities. He explains how people used external circumstances beyond their control as a motivating force to ‘re-examine life, values and to prioritise needs accordingly’ (ibid:164). Gkartzios’s interviewees often found

⁵ Marsh, Sarah. ‘Escape to the Country: How Covid Is Driving an Exodus from Britain’s Cities’. *The Guardian*, 26 September 2020.

themselves back in their hometowns, areas where they might have strong family support networks to provide the care that had been neglected by the state – a profile synonymous with Japanese U-turners. What feels significant about this work is the reframing of the idea of *choice*. It is often the failings of neoliberalism (in this case the deregulation of the financial sector) that stimulates crisis at the national, local or personal scale, meaning citizens feel that they have *little choice* but to take action to improve their living conditions. Both social mobility and the sense of entitlement to act to correct such circumstances becomes the ultimate arbitrator of patterns of movement, as with the ebb and flow between suburban areas and inner cities across the 20th century, according to perceptions of safety, quality of life and cultural richness.

Anthropologists that have written more recently about internal migration in Japan (Allison 2013, Klien 2016;2019;2020, Manzenreiter et al. 2020, Rosenberger 2017 among others) all foreground the sense of uncertainty or precarity that exists in contemporary urban life that has motivated their participants to seek rural opportunities. Yet their work suggests that the precarity migrants hoped to leave behind persists in the rural context, since they take significant risks by setting up home and/or business in a new environment. Precarity (*précarité*), a word whose origins can be traced back to the labour movement of 1970s France (Allison 2013:5), has become an increasingly popular condition of study in academic literature across the past decade (Allison 2013; Muechlebach 2013; Tsing 2015). Anthropologist Claudio Sopranzetti says that ‘analysis of precarity has mostly emerged in the context of advanced economies and retreating welfare states’, but that it also describes ‘global trends in contemporary capitalism’ (2018:134). He defines precarity as the experience of unstable, temporary and informal labour, but the feeling of precarity created by these labour conditions goes ‘beyond the sphere of employment’, extending ‘their characteristics of instability, flexibility, and individualisation to subjectivities, social relations, or imaginaries of the future’ (ibid).

Experiences associated with precarious labour have been documented in Japan where the burst of the bubble economy in the 1990s – the beginning of the end for ‘lifetime employment’ (*shushin koyō*) – produced instability in the labour market that ushered

in a range of neoliberal economic reforms.⁶ During his ethnography with financial traders in Tokyo, anthropologist Hirokazu Miyazaki observed how deregulation and competition were increasingly prioritised in business by the government and media ‘who promoted the rise of “strong individuals” (*tsuyoi kojīn*) ready to take risks (*risuku*) while taking responsibilities for their own risk-taking action (*jiko sekinin*)’ (2010:239). Susanne Klien suggests that a move towards Japan’s rural regions has occurred with increased urgency since the 2008 global financial crisis, followed by the period of national reflection after 3.11. Klien references a 2014 survey that concluded 40% of Japanese would be interested in moving from Tokyo to rural regions (2020:175). This migration has been facilitated through participation in local government schemes such as the ‘Regional Revitalization Cooperation Officer Program (*chiiki okoshi kyōrokutai*)’ (Klien 2019:75) that places individuals in agriculture, tourism, even craft regeneration projects.⁷ Outside of these schemes, jobs in local industries are hard to come by, or do not provide opportunities for personal growth. Consequently, migrants often commute to work in large cities, as was the case in Amami, where residents took advantage of frequent flights and cheap fares provided by budget airlines. Alternatively, people make jobs for themselves through entrepreneurial activities – opening restaurants, working remotely in IT or engaging in farming.

While driven by the experience of precarity in urban living, those who move to rural locations are in many cases, but not exclusively, bringing with them an experience of income generation and living synonymous with the middle-class. They are conscious that moving to the countryside means a narrowing of access to amenities, job opportunities, and perhaps even a less liberal social and cultural context. This narrowing stands in contrast to the social imaginary that has conventionally accompanied rural-to-urban migration, where opportunities and worldviews expand. Japanese I-turn and U-turn internal migration is discussed widely in both academia and popular media in the country, but the generalised and flattening notion of ‘migration’ perhaps calls for more specific terminology that might better articulate the specific power dynamics at work in different circumstances.

⁶ Lifetime employment, in Japan, is guaranteed employment with the same company for life.

⁷ I did not personally meet anyone on this scheme, although Koki had friends in Amami who had participated.

As historian Lorenzo Veracini explains, in the context of huge levels of forced migration happening today at a global scale, both in transit and upon arrival in their destination migrants do not ‘enjoy inherent rights and are characterised by a defining lack of sovereign entitlement’ (2010:3). In contrast, when considering patterns of internal migration the term ‘settler’ has been offered up as more appropriate (Addie and Fraser 2019:1377). This term can account for both the presence of urban gentrification – where wealthier outsiders move into city areas typically home to lower-income communities, leading to rises in house prices, the arrival of new businesses, and ultimately the displacement of those existing communities – and the impact of urban-to-rural migration. Echoing the historical character of settler colonialism, ‘settler’ contemporaneously invokes those moving into a community who bring their own politics, ideas and tastes to hybridise a ‘new’ settlement (Veracini 2010, Blatman-Thomas and Porter 2018). In contrast to the migrant, these individuals carry their ‘sovereignty’ with them, and as such the ability to assert their own experience of a political and social order.

The impact of such settlement has begun to be visible in rural Japan, where local traditions and landscapes are ‘improved’ for outside consumption, and coffee shops, hotels and restaurants have been opened to appeal to other I-turners and tourists (Klien 2020; Traphagen 2020). While instances of conflict between rural residents and I-turn ‘settlers’ does occur, rural Japan presents a paradox since re-population is on the whole actively desired. When driving my middle-aged neighbour to her favourite beach, for example, she pointed out the number of new beachside houses, dismayed that the owners would probably be from Tokyo. Yet local residents also want local services restored, to see children once again playing in the streets, and be able to visit the new amenities that arrive with newcomers.

While it remains unanswered whether the current tourism boom in Amami will significantly impact property prices or cost of living as has occurred in urban regions, my experience in Amami was of a lack of concern around the potential for displacement or cultural erasure, if the arrival of outsiders and the tourist industry gathered pace. One explanation for this might be that such movement is not understood in terms of class conflict, a sign of the general sense of middle-class homogeneity that exists in Japan. Anthropologist William Kelly (1986) quotes the Japanese Government’s public opinion surveys that claim 90% of the country’s

population is middle-class, suggesting a common level of social and physical mobility across the populace (ibid:604). The Japanese pay a graded income tax, the education system is robust, health insurance is not free but income gradable, one can draw on unemployment insurance, and the country has one of the lowest pay differentials in the world. But as Kelly explores, there exists too many ‘contradictions and paradoxes’ in education, in the home, at the workplace that can only be drawn out with ethnography, suggesting that the ‘90%’ figure might underestimate instances of struggle or deprivation. Kelly instead labels the ‘loose pattern of expectations’ contained within the 90% figure as ‘New Middle Class folk sociology’ (ibid:605). The contradictions within such a folk sociology were apparent amongst my participants in Amami: they all finished high school, with some going on to university in Japan or abroad, yet in many instances they came from blue-collar families with little disposable income. For those individuals from white-collar families, the financial crises of recent years had eroded any possibility of inherited wealth. This complexity is perhaps reflected in the most recent results of the government’s survey where 12.3% of respondents considered themselves upper middle, 56.6% middle, and 23.3% lower middle class (Government of Japan 2016:15).



Nancy Rosenberger accounted a similar situation to my own with her participants who she calls, 'educated urbanites doing hard field labor' (2017:14), who have relocated to pursue organic agriculture using their rural lifestyle to market their products to urban clientele. Rosenberger calls this 'occupational edgework' – work that 'takes on risk and uncertainty as a way of life' in order to 'cope with the uncertainties of environment, food, family, and self-making in neoliberal Japan' (ibid:16). This 'edgework' brings together the rural and urban, blending 'flexible, hybrid approaches' to gain access to regionally fixed land, traditions, and infrastructure. But her participant's metropolitan mobility allows them to 'crisscross' (ibid:15) social, geographic and economic boundaries. Yet unlike the organic pioneers whom Knight references in his work from the 1990s, who in going 'back to the land' were considered 'resisters' to the capitalist system, the new generation follow a 'politics of engagement rather than contestation' (ibid:18). This is exemplified by Klien's 'social entrepreneurs', those who move to rural regions and tackle social issues through business activities, with an aim to improve society (2020:146). Klien's research lists a furniture factory that provides skills and employment for local people in Ishinomaki, a tsunami-devastated fishing town, and in depopulated Tokushima she documents an enterprise that sells wooden tableware turned by local carpenters to restore value to neglected Japanese cedar forests (2020:145-173). Across this literature there is a genuine sense that professionals who relocate to the countryside have become disillusioned with the conditions that define urban life and possess a desire to work towards an improved society and environment. Yet my research shows that this is not an entirely altruistic act since Klein's participants, like my own, often move to the countryside in search of the freedom to allow them to follow their own creativity and find value in work that is not defined or confined by income, carrying with them a sense of sovereignty.

Across the time of my fieldwork I met many people who had moved to Amami to pursue entrepreneurialism that combined commerce with creativity or health-related benefits: there was the herbalist who had trained in Edinburgh and moved from mainland Japan to grow and dispense her own plants in Amami's warm climate; and the couple who moved to become commercial organic farmers in the hope that the sun, nutritious food and change of pace would cure the husband's skin complaint, yet who later lost a whole season's crop in a typhoon, pushing them instead to earn an income in tourism. When driving through one of Amami's longest mountain tunnels,

I picked up a hitchhiker who had moved to the island to become a stained-glass artisan, but who's lack of success in the business had led them to instead become a Mongoose hunter, part of a team employed to eradicate the introduced Indian Mongoose that were decimating indigenous wildlife in Amami. Kanai Kougei, however, provided the richest fieldsite for examining the mechanics of combining creative labour with nature and community. The apparel staff at the workshop are a mixture of U-turn and I-turn residents, all below 41. There is Yukihiro-san (38), but also Takahito-san (30) (introduced in Chapter 1) who was drawn to Kanai Kougei by his sense of responsibility for tradition after a number of career failures on the mainland. Akiyo too, a 24-year old Amamian fashion graduate, came to Kanai Kougei after a year working in Ireland where she had realised the value of Amamian nature and culture. Yuske-san (26) had I-turned from Fukushima Prefecture, Satoko (41) had come from Kyoto to escape the 'temptations' of the city, and Kazuko (37) had moved with her young family from Tokyo after 3.11. Beyond the staff, Kanai Kougei functioned as a creative hub that attracted those involved with the *tsumugi* industry, both young and old, and also the extended friendship networks of creative people who lived on the island. There was the potter and carpenter who both sold their wares in the workshop's gallery, an art curator who commuted to work in Tokyo, and his wife who was a textile designer. In addition, there were the designers, artists, musicians, journalists, and photographers who would pass through the workshop on an assignment, or simply to overdyed their Comme des Garçon sneakers.

Aside from government initiatives to preserve Japanese craft and an interest in 'tradition' in the post-war period, how has it come to pass that traditional dyeing is drawing people in such numbers, despite its materials and techniques having been surpassed by synthetic colorants? In the thesis introduction, I suggested this interest has been driven by the current environmental crisis and the rise of ethical consumption practices, but I believe the reasons are in fact much broader as I will go on to explain. I suggest these reasons encompass: 1) an attraction to the magic of colour-making; 2) the appeal to a younger generation in the development of skills and a subsequent identity as a craftsperson; 3) the pleasure found by dyers in building communities who share skills, aesthetics and values and; 4) the resourcefulness found within the image of manual labour itself, in an increasingly mechanised and synthesized world.

Establishing connections through colour

Yukihito: rather than taking up the job out of pure interest, I was concerned that the work my parents were doing might disappear. I thought I wanted to try it out even if it was a little bit [risky]— but when I realised, I became *entirely* into the colour making.

Kazuko: so it was like magic

Yukihito: Alchemy

Kazuko confirms –

Kazuko: Alchemy, a little different

Charlotte: but also magic!

Yukihito: But magic *is* the right word. Boiling in pots — it looked just like something a witch would do.



In my career as a textile designer I have practiced the chemistry of synthetic dyeing that can be highly satisfying in its ability to produce quick, precise, and strong colours suited to the fast-changing palettes of the fashion seasons. But the enchanting potential of colour-making from scratch was most profoundly experienced not only by myself, but also by Yukihito-san and some of my Kanai Kougei colleagues, when we

travelled to Okinawa to harvest and process *Ryūkyū ai* (Ryukyu indigo). Cultivated by Kitta-san and Sawano-san of the clothing label KITTA, from whom I borrowed the term ‘joy of living’, the pair had grown, harvested and processed this local and traditional crop since relocating to the island and gaining access to the dyeing facility in 2011. They dye their garments using a variety of local and imported dyestuffs, but indigo forms the core of their collection grounding themselves and their work in Okinawa. Farming *ai* is a cyclical pursuit that involves preparing the soil, sowing the seed, and tending the plants ready for harvesting and processing across the summer months. Attendance to one of these harvestings is invite-only and attracts dye experts from across the world.



A *kamakiri* (praying mantis) in the field of *Ryūkyū ai* alongside at least six other types of insect.

On the morning that we arrived to help, around 20 volunteers handpicked 600kg of *ai* leaves that were transferred from the fields to soak in huge steeping pools. After two days we returned to see that the *ai* leaves had leached their *indican* (indigo molecules) and had been removed from the water. What remained was an intoxicating vision of an opaque, foaming turquoise, accompanied by a medicinal,

herbal smell that Yukihiro-san said reminded him of *kampō* (Japanese traditional medicine). The next stage is to oxidise the indigo; this renders the indigo molecules water insoluble, allowing them to sink to the bottom and be collected later. The pH of the pool was checked and some industrial lime (an alkali) dissolved and pumped into the pool to help draw out the indican.⁸ Beating of the *ai* liquid followed using long wooden paddles to encourage the *indican* to mechanically bind with oxygen in the air. This process can be performed by machine, but I was told human labour is quicker and more effective. After a feverish 40 minutes, that left the volunteers splattered blue from head to toe, the pool resembled a stormy ocean as the colour changed incrementally from turquoise to deep navy with candy-cobalt foam frothing at the edges. As the paddles changed hands, the foam slowly hardened and darkened, gaining the characteristic iridescent sheen of oxidised *ai hana* (indigo flowers).⁹ The now settled surface took on a brown stagnancy as the blue pigment sunk. The pool was then left to *nekaseru* (sleep) for a week before the contents were transferred to a smaller pool where it would ferment. Once the water was syphoned off a high-quality pigment would remain that could be used for dyeing the KITTA collection a radiant blue, any surplus sold to friends and acquaintances.

Manufacturing one's own indigo is a long, expensive and labour-intensive process, that requires significant natural resources – land and water – and extensive knowledge to gain good yields. In the Ryūkyūs, one must also factor in the risks associated with strong typhoons that can destroy whole fields of *ai* in a day. These difficulties are exposed by the fact that indigo could only be produced cheaply for commercial purposes prior to synthetisation if it used exploitative land and labour practices. In Japan, commercial indigo production on Shikoku island was said to be 'the cornerstone of economic modernisation in Meiji Tokushima' (Amano 1998:225). Indigo accumulated huge wealth for manufacturers and merchants who established the island's trade and transportation networks and were intimately involved with the founding of the local banking system (ibid:235). The eighteenth-century global trade in indigo was 'intimately connected to the growth of slavery' in the European colonies of the West Indies and Central America (Phipps 2013:128). Indigo blue was used to

⁸ As with dyeing in Amami, Okinawans would historically have used crushed coral as an alkali.

⁹ This is a poetic Japanese term for the shiny bubbles that form on the surface of a fermented indigo vat. The bacteria produced in fermentation draw oxygen from the water and release it to the surface, creating bubbles.

dress industrial workers and servicemen of France and Britain on account of its unique properties: antibacterial, anti-odour, fibre strengthening, and its partiality to being overdyed. This gave it an export value that exceeded even sugar (Taussig 2009:136). After the abolition of slavery in the British colonies, British indigo was manufactured through coerced labour and forced cultivation in the colony of Bengal, first by the English East India Company (until 1857) and later the British Empire.¹⁰ These ‘regions of monoculture’ (Delamare and Guineau 1999:93) led to famine resulting in violent labour revolts, giving it a production history that is both ‘hideous and extreme’ (Taussig 2009:158).



This prompts one to ask, where is the value in producing indigo in Japan today when it is just as efficient to buy pigment from India (strong colour, natural, affordable – but with unknown labour and environmental standards) or Germany (strong colour, chemical, cheap)? Anthropologist Michael Taussig, in his 2009 book *What color is the sacred?* designates a chapter to ‘Redeeming indigo’, and quotes the 1850 account of an Englishman in Bengal writing home to his sisters describing much the same

¹⁰ Gupta, Abhijit. ‘Oppressions of the Indigo Planters.’ *The British Library*, n.d.

process as I encountered in Okinawa. Using this sensory resource that describes the colour, smell, energy and *magic* of indigo production, Taussig concludes that:

the view [of the indigo pools of Bengal] brings to the fore the art of nature, the recognition of which has been occluded by modern chemistry. It is as if the feel for materials, for the delicacy of physical changes in substances, and the questions those pose to ourselves and relationships to nature, have been cast into oblivion. The more scientists know about nature, the less we have a connection (2009:153).

Historian of science Agusti Neito-Galan (2001), in his book on the history of natural dyeing, goes some way in describing how ‘the art of nature’ was ‘occluded by modern chemistry’ in Europe between the 17th-20th centuries. He describes the difficulties of translating the intangible knowledge of natural dyeing to one that could be understood by science and manipulated by economics as industrialisation was underway. He documents how dyeing was subject to the European Enlightenment agenda of improvement both in terms of the agricultural productivity of dyestuffs at home and in the colonies, but also in how chemists sought to improve recipes and techniques for expanded production and to establish ‘commonly accepted theor[ies] of dyeing’ (2001:89). What is particular about Neito-Galan’s research are the ‘tensions and misunderstandings’ that he lists between dye craftsmen and chemists, with the latter failing to understand that in order to achieve a desired shade the dyer drew on a toolkit of intangible, flexible, sensory, perception-based skills that were impossible to translate into words and numbers (2001:181).

While early interventions by chemists were unsuccessful, by the nineteenth century chemistry had found its own language, techniques and materials developed from coal-tar, a waste product of the industrial revolution, that led to the founding of the modern chemical dye industry (Taussig 2009:230). Neito-Galan suggests that artificial dyestuffs coexisted with older materials, methods and technologies prior to the almost blanket adoption of synthetic aniline dyes in the ‘modern period’ from 1856 (ibid:182). What this history suggests, relevant for this discussion, is that it was almost impossible for natural dyeing to exist in its earlier form after chemists became involved, since natural dyeing resisted upscaling and cost-cutting as labour laws were introduced, science advanced, and industrial capitalism developed. Dyers were not trained in scientific processes, meaning that they were unable to account for the

chemistry that was happening before their eyes. Instead they had learnt from experience how to adapt their method to replicate the results achieved by the chemist. This knowledge was intangible and difficult to write down because it was context specific and passed secretly between craftsmen. In Amami these techniques might be described as *daitai* (approximate or rough), a word that I used and heard often, because the nature of craft means that quantities are measured by estimation based on feelings gained through experience (see also Chapter 6). But *daitai* can also be used to describe a person, one who completes tasks without precision, while not necessarily suggesting that a person does not have skill or is neglectful. While some natural dyers have expanded their knowledge to better understand the science behind the art today, it must be pointed out that natural dyeing contains so many geographically-embedded variables that it is the flexible, intangible skills that are relied upon to replicate a process time and again. Consequently, producing pigment and then dyeing with it oneself could be understood as an attempt to re-establish local connections with nature, the land, the atmosphere, and with regional cultural and industrial histories.



Yukihito-san (far left), learning the beating technique from Sawano-san (in blue hat).

Anthropologist Diane Young, who has specialised in the study of colour – an area that she argues has been neglected in anthropology – explains that in science colour perception is subjective, ‘a product of individual brains and eyes’ (2018:2), but in lived experience ‘colour is about practical engagement in the world, not just a set of finalised theories’ (2018:2). This was clearly demonstrated when processing *Ryūkyū ai* where environment, materials, technology, history, and action coalesced, becoming a focal point for those who exchanged knowledge and the experience of colour-making. Young quotes several psychologists who claim that rather than being internal, colour is externally understood as a quality that ‘composes’ something (2018:2-3). As such, ‘getting to know colour is relative to the situation one is in – ecologically and environmentally’ (ibid). Growing, foraging or harvesting dyestuffs situates a dyer in time and place within a broad conception of community. One must have an awareness of seasonality and availability of materials, needing to know the best time of year (or even day) to harvest, and which species will provide the best colourant. This means that the dyer better understands their ecosystem by watching the seasons, changes in the weather, even other species with whom one is in competition for resources (see the *Mejiro* birds in Chapter 4). Taussig states that expanded knowledge of the science of colour has obliterated one’s connection to natural materials and processes, but natural dyeing has the potential to counteract this effect since the more dyers know about nature, the more they can establish a connection through colour (2009:153).

This idea is significant for incoming craftspeople, who are seeking to establish a grounded knowledge of their local geography and can familiarise themselves with their natural environment through the manipulation of local materials. But even when materials are brought in from India or South America, the colours that one can achieve are still dependent on local environmental conditions. This sensitivity is extended during the dyeing process itself, where skills that combine botany, chemistry, aesthetic judgement and environmental sensitivity are required to achieve flat, even and consistent colour that is fixed to a specific spot. The humidity in the air and the strength of the sun, or the pH, minerals and chemicals in the water supply, can all affect the consistency of dyestuffs – changing even on a daily basis – that will in turn affect the final dyed result (see also Chapter 5). This means that natural dyeing requires geographic fixity so that the craftsperson can control the many variables to an extent that matches scientific accuracy. The colour one can achieve

might be affected by the temperature of the workshop on a particularly cold morning, or the amount of effort a craftsperson exerts if they are energised by Bob Marley playing over the sound system. Dyeing is therefore a hugely challenging, gratifying, even magical pursuit that lies in an entanglement of the senses of the craftsperson who intertwines nature, cultural practice and economy in time and place. As the Shachō explained:

Dorozome (mud-dyeing) is the most difficult of the dyeing techniques, because to do the work you have to rely on your experience and intuition. Normally, you can write a recipe and teach it – how many grams of water, how many grams of dye material – but this is something you can't just write a recipe for. So it's up to the sense of the individual.



As a result, natural dyeing is a lifelong quest to accumulate knowledge through practice. Even Nagata-san (pictured above left with Kazu-san), the oldest and most skilled *tsumugi* dyeing craftsman, told me that he is still finding ways after 50 years of practice to improve his technique. This knowledge is adapted depending on physical and environmental context but also changes based on social interaction within a ‘community of practice’ (Lave and Wenger 1991). It is good example of Jean Lave

and Etienne Wenger's 'situated learning' (1991): 'learning [that] is always a political project, a collective endeavor, situated in everyday practice and a key to future transformative change' (Lave 2019:8). The transmission of traditional, embodied, context-specific knowledge has been widely discussed in regard to the traditional arts and crafts of Japan where 'mastery of form' is established through a master/apprentice relationship (Singleton 1998; Moeran 1984). This is widely understood to be based on a learning technique where the learner is not taught but 'appropriates' or 'steals' intangible knowledge from the master through observation (Singleton 1998:10). These observations develop via 'practice, repetition, and repetition of the repeated with ever increasing intensity' until an apprentice masters a technique (Herrigel 1953:44 in Singleton 1998:3). Although, as anthropologist John Singleton points out, this style of education is not only specific to Japan, there does exist here a 'historical appreciation for these practices' (ibid), meaning craft workers gain a level of respect that is not necessarily observed elsewhere. This lifelong learning means that craftworkers develop their own sense of identity 'within specific communities of practitioners' who share 'knowledge, identities, values, techniques' (1998:4). As Lave explains:

crafting identities in practice becomes the fundamental project subjects engage in – it is a *social* process. Becoming more knowledgeably skilled is an aspect of participation in social practice. By such reasoning, who you are becoming shapes crucially and fundamentally what you “know” (2019:95).

What is interesting about the younger generation of dyer in Amami is that they fall both within and outside of this area of discussion in regard to learning in Japan. Yukihiro-san for example, has certainly 'stolen' knowledge and techniques from the craftspeople around him but for the most part he is self-taught, since his interpersonal relationship with the Shachō meant that he never apprenticed in dyeing *Oshima tsumugi* at Kanai Kougei or elsewhere. As his mother, Eriko-san told me, when Yukihiro-san started the apparel business, he did it on his own with little help from his family. One could argue that he is the ideal entrepreneur, one who has pursued his own learning and creativity using 'broader networks of collaborative socialized production' (Arvidsson and Niessen 2015:111-112) and cultural and economic resource extraction. Having identified the commercial potential of Amamian textile techniques he has provided the market access to local cultural

heritage transforming them ‘into tradable property rights, attributable to individual genius and inner “talent”’ (ibid). Yet rather than foreground the individual creative entrepreneur, the work of Lave and Wenger suggests that the pursuit of craft knowledge and the development of identity contributes to a sense of local belonging and strengthening of community that is multi-regional, cross-generational but also cross-species. This allows the craftsperson to assert their own place among a wider network of craft workers that, if not based on friendship, is established out of respect.

Rather than this being exclusive to traditional Japanese craft, many of those writing about the creative industries in art, fashion and design globally have pushed back against the stereotype of ‘individual genius’ since creative success is nearly impossible without the help of others. Since the late 1990s, Angela McRobbie has observed workers in the creative industries who take on risk and financial insecurity to pursue individual ‘artistic integrity’ (1998:177). She explains that deindustrialisation has led to the ‘wholesale shift in working practices’ that emphasise flexibility and innovation (ibid:177) meaning that the fashion designers she studied must be:

multi-skilled in hand work, design work, publicity and promotions, management and business and having some idea of manufacture, as well as being in possession of creative vision, imagination and all the other qualities associated with fashion design. These new workers are posed midway between labour and capital, doing the job of both at the same time (ibid:188).

Yet McRobbie is clear to demonstrate the ‘informal relations of dependency and reciprocity’ (1998:180) that emerge across creative networks to make things happen, where creatives will share time and space with the understanding that they will accrue experience or help in return. Business success is therefore based on ‘social interaction ...and a more subtle reputation economy’ (Arvidsson and Niessen 2015:123) where skills, favours, contacts, materials are exchanged – as was the case when we visited Okinawa. While Yukihiro-san has a physical base and biography in traditional craft, much of his knowledge has been gathered via these ‘communities of practice’ with other craftspeople at his company and in Amami but also through global networks that expand beyond the island. Whether this is via people passing through Kanai Kougei to participate in dyeing workshops or during those times that he brings the workshop to Tokyo or Europe, Yukihiro-san is participating in the

global circulation of ideas. This is not to say that competition between similar practitioners does not exist and communities are conflict free, since local competition has indeed created a culture of secrecy in the dye industry. But when one's local conditions are so geographically specific and the pool of practitioners shrunk to such an extent, the sharing of knowledge across boundaries, nationally or even internationally, does not necessarily impede one's own business prospects, instead it could be said to enhance them. The alchemy of natural dyeing, then, does not only result in colours, but it also generates a sense of identity within a 'community of practice' (Lave and Wenger 1991).



Finding a way to be in balance

This isn't something you can make by machine, so more than a regular factory we have many more ... potentially harmful influences on the work we do – the influence of the weather, for example ...so we always say: “this is how we're making the work, so please understand that when looking at the pieces”... When companies do make the effort to contact a place like us with prices that are high for them, I want to ensure I explain clearly. If we are going to do good work together, it has to be a situation where both sides have found a way to be in balance – otherwise the work won't be any good. So I think the discussion aspect is really important. Even more than the product you make.

We can try our best to accommodate the client, but in the end because we're working with nature, we can only compromise as far as we can compromise... Otherwise it just becomes a burden on the person doing the dyeing.

Yukihito-san

I have suggested so far that the development of skills and knowledge of one's local environment are key to becoming an established dye craftsman. I have also claimed that 'communities of practice', both local and wider afield, foster respect and reciprocity that can be said to assist the success of a business. In the following section I will consider how compromise is used to translate the ideals of craftwork into a product that is commercially viable. As Yukihito-san explained above, making work that is reliant on unstable nature in an environment such as Amami's means compromising between an ideal as it is imagined by the customer and a reality that is not always easy to predict. This is best demonstrated by a case study, of which I have chosen the quilts or *kiruto* that Kanai Kougei over-dye in significant numbers for a design shop in the city of Fukuoka on Kyūshū island. On the surface these products seemed sustainable; made in India using recycled garments and over-dyed using 'natural' materials in Japan. But scratch the surface and the reality reveals the complex tensions when defining the ground of sustainability between nature and economy.

Originating in Bengal, *kiruto* are kanthas, a style of blanket made from old, patched saris that are layered and hand-sewn together in a labour-intensive process. Anthropologist Lucy Norris, who has researched Indian recycled textile economies, notes that kanthas were historically made by mothers using treasured or well-worn saris:

bringing together ... pieces from different family members, perhaps geographically dispersed or from many generations, result[ing] in the creation of a new wholeness from fractured parts, reorganizing the spatio-temporal relationships inherent in the cloth itself (2004:63).

Their popularity outside of South Asia has in recent years made them a commercial product that are now being shipped abroad in, what one can only assume to be, significant numbers. Their popularity has likely been assisted by low material and



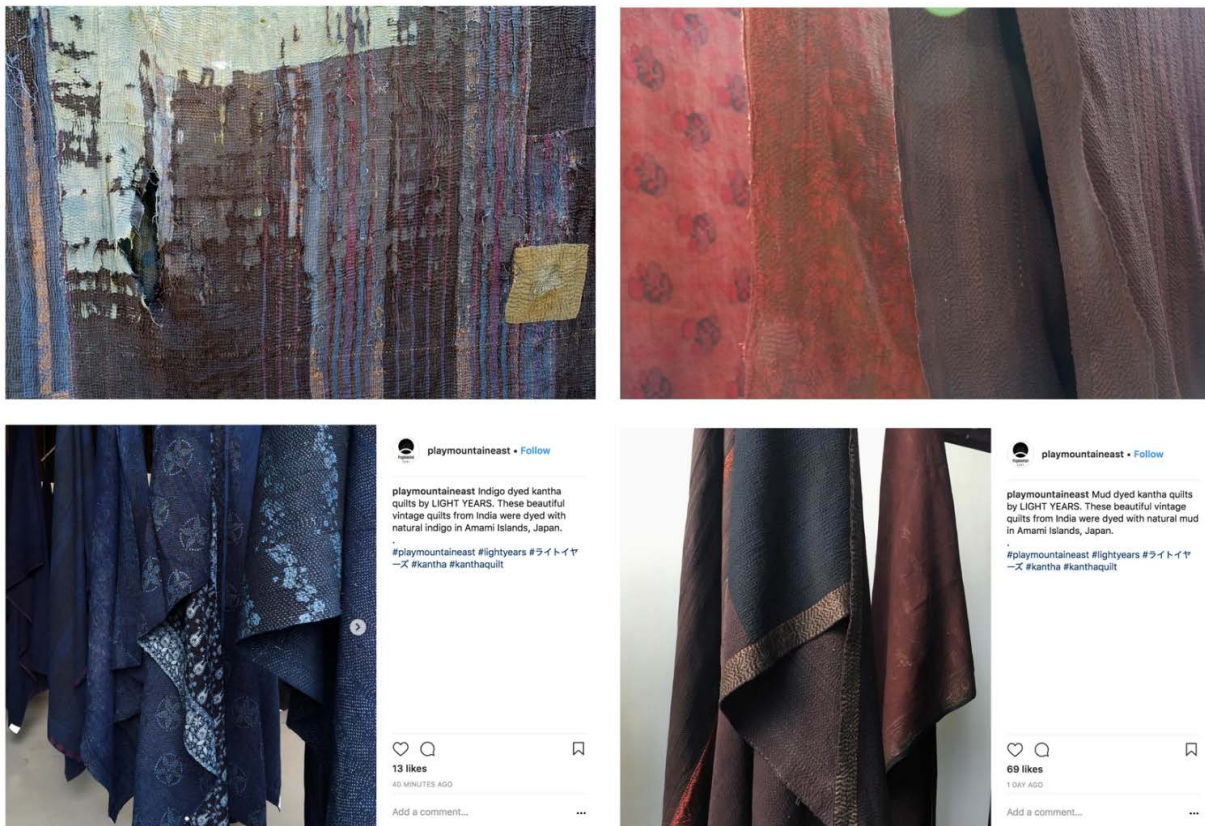
labour costs – since they are hand-stitched from sari that have entered the recycled clothing economy – meaning a large kantha can be obtained in a tourist shop in Delhi for under 20GBP. On being shipped from India to Fukuoka the

owners would select those in the best condition for immediate resale – the remainder are sent to Amami. When there was a lull in workflow or excess *techigi*, kantha were fetched from storage at Kanai Kougei to be overdyeed. Overdyeing these quilts using *ai*, *doro* or *ai-doro* (a blend of both that makes a quick black) used significant amounts of dyestuff since they are large, and their layers of cloth render them absorbent. This raised tensions between the *tsumugi* and apparel craftspeople, since they were products that demanded time, space, and resources. Their absorbency also made them difficult to dye. When using German chemical indigo that produced the quickest, cheapest, deepest shade of blue, it took two people to squeeze the liquid from the textile. When using *techigi* they were dyed in *tarai* (tubs) that required use of the whole body, using the feet as anchors to wring out the liquid (above). A one-person job, I was banned from this task as it was deemed too exerting, especially in the summer heat.



Kanthas arrived in multiple colour and pattern combinations that we would informally judge on their level of *kawaii* (cute). Once dyed, they took on a completely different but distinctly Japanese aesthetic reminiscent of

boro (rag) textiles, a popular style of antique Japanese peasant textile made from repaired and recycled *kusakizome* cloth.¹¹ The *kantha* emerged from their storage boxes musty, smelling of damp, with light stains and wear marks made by their previous owners embedded in the saris. After being dyed in Amami they underwent a transformation, wiping both the biography of the saris and the *kanthas* clean. They emerged as expensive Japanese *kiruto*, reminiscent of a worker’s aesthetic, that when shipped back to the mainland or airmailed further afield, retailed for 41-46,000JPY (approx. 325-365GBP).



The appeal of the worker’s aesthetic, including jeans, dungarees, overalls, dust jackets that historically would have been dyed using processes such as *aizome* and *dorozome*, has become increasingly fashionable since at least the 2000s. While jeans as workwear have a history that stretches back to Levi-Strauss’ patenting of rivets in the 1870s, Miller and Woodward explain that denim, dyed with indigo, became an icon of rebellion in the 1950s and 1960s as a way for youth cultures to assert themselves ‘against a suffocating parental and national ideology of normative order’ (2007:338).

¹¹For current interest see the exhibition: *Boro Textiles: Sustainable Aesthetics* at the Japan Society, New York. March 6—July 19, 2020.

Although jeans today have become ubiquitous, almost a uniform of ordinariness (ibid), the extension of workwear into the professional sphere reflects changing aspirations in middle-class youth cultures. Whereas formally a suit was a marker of success, the popularity of workwear might reflect what anthropologist Richard Ojeco calls a 'reconfigured understanding of taste' (2017:3). The re-evaluation of taste, comfort and practicality of working-class garments reflects an uptake of 'traditional' and 'artisanal' professions such as baking, butchery, carpentry, and beer brewing, which have become intimately connected with the ideals of craftsmanship, authenticity and heritage. Workwear might be said to identify those with the agency to blur the boundary between work and leisure or highlight those with the gumption (or privilege) to trade university degrees for life as a butcher – as has occurred in 'hipster' communities worldwide.

Although there are signs that the appeal of the craft aesthetic associated with the 'hipster' is waning (see Walker 2015; Harris 2018), the term having been over-used or inappropriately adopted by branding and marketing executives across a variety of sectors, the commercial potential of the aesthetics of labour should not be underestimated in Japan where designer workwear has reached new conceptual and financial heights.¹² Kanai Kougei were able to cater services and products to this market, most keenly demonstrated by the development of a dyers apron, produced and sold by the Japanese high-end workwear brand John Bull. The company has designed a series 'Aprons for Artisans' (photo below) for the chef, bookseller, tree nursery worker, wine connoisseur, carpenter, gardener, cordwainer, selling them to non-professional consumers for between 10-30,000JPY (70-210GBP). Kanai Kougei's dyeing apron was developed on-site and was planned to be worn by dyers to attract colour stains before being returned to the company and sold online. Time, life and the identity of the craftworker were therefore embedded in the fibres giving the garments a value that exceeds the faux distressing implemented on mass-produced denim. As Miller and Woodward claim, jeans are one of the 'most global' but 'personal and intimate of all items of clothing' reflected in the wear and tear marks that ingrain themselves in the textile (2007:345). But they are also a 'secure base'

¹² For example, the Onomichi denim company based in Hiroshima Prefecture, send jeans to be worn by manual labourers – fisherman, carpenters, citrus farmers - before selling them to customers for 48,000JPY (around 340GBP). See also Keet 2011.

(ibid) for those with fashion anxiety, and workwear similarly might be seen as comfortable uniform that reflects a particular taste but also the location of one's ideals.



The rise in fortunes of the worker's aesthetic represents a fascinating shift in the disconnect between object and image perpetuated in the field of clothing design. In her research into the fashion industry of the 1990s, McRobbie highlights how the stories that fashion media constructed around clothing were more 'real' than the items themselves (1998:177-178). In many cases, the items that young designers made and the aspirations they contained were wholly disconnected from the reality of the labour conditions behind their production. Design professionals sought to distance themselves and their products from the 'skills associated with the more menial side of fashion, manufacture and production' wanting to 'believe that they are above manual labour' (1998:186). McRobbie's ongoing research, conducted for over 20 years in the cultural industries, is significant in how it predicts and traces a shift where designers would retrieve the value of 'dressmaking' (ibid). Design aesthetics

have shifted from a focus on individual creative genius, where the artisanal make is secondary to an object's design, towards a re-evaluation and renewed visibility of hand skills. This shift is perhaps the result of the expansion of university arts education, where the over-accumulation of skilled workers and small designer brands in cities worldwide has forced designers to seek skills that differentiates them from their peers (Arvidsson and Niessen 2015:125). But also, one might argue, because designers are seeking labour that has meaning, inserting them within a historical lineage of makers and traditions that are geographically and socially grounded. McRobbie describes, for instance, how the designer has moved out of the backroom with their sewing machine to the shop floor, which says to their customers 'this is my workplace, this is what I do' (2013:994). The aesthetic of the product is therefore intimately connected to the identity of the craftsman, with the commodity's value lying in the labour, lineage and communities of craft. As a result, McRobbie suggests:

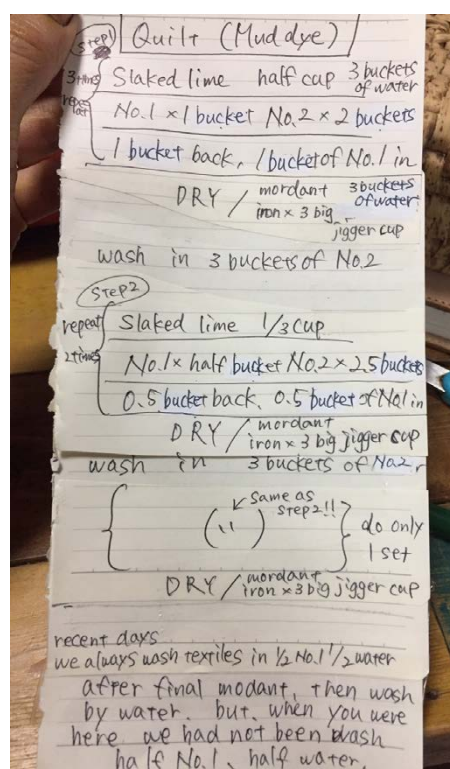
the old is associated with high quality craft skills no longer found in this sector and so it accumulates value on the basis of past exclusiveness in comparison to contemporary mass produced and especially 'fast fashion'. This re-birth of craft...is in fact grounded and founded in the spaces of new social media, in blogs, on Instagram, and in the editorial brief of the online style magazine...In this context craft becomes a major site of innovation (2015:167)

Since it has opened up a previously closed world, social media has indeed played a huge part in the rise in craft's status as customers can interact with craftspeople in Japan, while at home in London. It was through Instagram, for example, that I first learnt about two I-turners from Tokyo that work under the label Buaisou, who relocated to Tokushima to grow, process and use natural indigo. They had used social media to create a buzz around their practice, attracting international media and corporate partnerships. After Buaisou opened a satellite studio in New York City, where I was living and working as a designer at the time, I participated in a dyeing workshop and subsequently learn about *dorozome* and Kanai Kougei from the director of the space. Yet the irony of the 're-birth of craft' (2015:167) is that despite makers aspiring to the slowness it promises, disrupting the rhythm of commodity production is always an aspiration, since makers must compromise to conditions as they are dictated by the market – conditions that demand speed.

The regulation of time



On the Kanai Kougei workshop notice board pictured in the image above, the list to the left describes the current work under production. The text in red and in black to its right is a recipe for one of these products. To the far right (slightly hidden) is the recipe for *kiruto* dyed via *dorozome* translated for me by Kazuko (below) and difficult to understand for the uninitiated (see Appendix 4). Also on the board is a note of chemical quantities for making *ai*, and the weight of certain products so that the ratio of the chemical *hypren*, a ‘friction fastness enhancer,’ can be mixed accordingly. What is significant about the contents of this board is that the recipes in the centre conclude with the direction *nekasu* (sleep), whereas the instructions for the *kiruto* references only the use of *hypren*. *Nekasu* means that freshly dyed textiles are rested from a few hours to a few days between dye layers – a concept that was new to me in the production



of textiles, since I had been trained in the immediacy of chemical dyeing. A little like a stain, the longer a dye substance sits on the fabric the more impregnated it will become. This increases the bonds between dye and fibre, improving fastness to washing, wearing and light. Indigo garments represent the best example of this, as historically, they were kept in the dark for one to two years before they were worn to let the indigo ‘mature’. In addition, the cloth is sometimes mordanted and rested prior to dyeing with a mineral or soya milk, making the textile more susceptible to plant tannins. Kanai Kougei rarely have time to pre-mordant fibres, but this is how KITTA achieve their deep madder reds since they work to their own timeframe. Slowness in production therefore leads to a longer life for the colour but also for the garment, increasing its sustainability. Yukihiro-san explained that since the customer dictated the speed of production, he was only able to rest his garments from a few days to a week, and in the case of *kiruto* rarely at all. Because of the fickle nature of the fashion and textile industry, whose orders are inconsistent from one fashion season to the next, he rarely refused jobs meaning he wasn’t afforded the luxury of time to create the best product he could.

In the place of time, Kanai Kougei fixed colours on textiles using the after-treatment agent *hypren NFS* (ハイプレソ NFS).¹³ Bought from a well-known print and dye supplier in Kyoto, it is a silicone emulsion used in the textile industry that wraps itself around fibres preventing direct friction of colour. Rather than using time to let dye materials embed themselves in the fibres, *hypren* is used as a barrier to stop colour transferring to a paler object or to one’s skin (think new dark blue jeans on a white sofa). The application process involves soaking the textile in a diluted solution overnight, then drying in the sun or cupboards that are heated by kerosene furnaces and/or electric dehumidifiers. The process is then repeated, but on the second cycle the textile must be parched with heat. Left with the scent of gasoline, *hyprens* effectiveness is debatable and rather hard to measure, as is its effect on waterways when the spent solution is washed down the drain (see Chapter 5 for a discussion surrounding water and disposal).

While this final stage of production revolves around the material *hypren*, what was not so visible was the quantity of energy used to heat the textile necessary to fix the

¹³ Tanaka Nao: <https://www.tanaka-nao.co.jp/shop/206-107-30.html>. Accessed:7.6.2018

chemical. This came to light when I asked Maiko-san what the highest overheads were at the workshop:

Manpower [labour], and then also fuel costs. Fuel costs much more than the dyes. I realized last year after we'd calculated all our income and expenditures just how expensive it is. For the kerosene oil... so I said to Yukihiro we should stop making *kiruto* in the winter! They never dry so they always end up in the dehumidifier for ages. Just fuel costs are maybe 130,000 or 140,000 yen a month. Last December was the most expensive month for fuel: around 180,000 yen [approx. 1260GBP].



A neighbour and his grandson fishing in Tatsugo bay with power station to the left, boat dock and diesel lines centre, cement silos across the bay and further in the distance a gas storage unit.

In addition to kerosene, electricity is also required. This bill covers air conditioning in the gallery, dehumidifiers, *dasuki* (spinning machines), the pump that draws groundwater and general building usage. Kanai Kougei is served by Tatsugo power station, a diesel-fuelled plant located in Sedome, the village where I lived. Located in a deep fjord, the site was presumably chosen for water access but also protection from typhoon winds. When the power was cut in bad weather it would stop production at Kanai Kougei since groundwater (the main water supply) could not be pumped, sometimes for days at a stretch (see Chapter 4). While Sedome would be the first village to have its power restored, the village had built up around the power station

meaning diesel particulate matter from the chimneys coated the outside of my house. Its position also added to my own sense of anxiety about the health consequences of air pollution and the risks posed by a small oil tanker entering sensitive waters – a discussion I will elaborate on in Chapter 3. Despite my anxiety about the future, the waters were already polluted – no longer clean enough to swim in or to eat the fish caught from the bay.

What the *kiruto* reveal are just some of the materials and infrastructure that are used to reduce time during production and speed up the everyday in Amami, but this comes at a cost to the environment and at a financial cost to Kanai Kougei. It means that profits on items such as *kiruto* are only small, forcing the workshop to replicate models of mass-production to make the work worthwhile. This is counter to the image sought by the store commissioning the products, but as Yukihiro-san said they have to find ‘a way to be in balance’. In order to improve the situation Kazuko asked Maiko-san: ‘wouldn’t it be better if we could charge a bit more?’ to cover additional material, energy and labour costs. But Maiko-san explained that the company keeps ordering and the number of *kiruto* is increasing or constant. This means that they have to offer a reduced unit price if they want to keep them as customers. Maiko-san and Yukihiro-san sought a solution to this issue that was seasonal, yet Maiko-san explained that the summers are too hot to carry out this very physical labour, even though the heat of the sun could be better utilised to reduce energy bills. Instead she proposed:

We thought of doing *kiruto* only in spring and autumn. But then there’s no chance in spring here either because of the rainy season! ...*Kiruto* are really tough... the work takes up lots of space; there are big fuel and dye costs. It’s really difficult...

Maiko-san’s solution is embedded in better utilising seasonal time, an element that is free. But Amamian seasons are not favourable to the labour, time-saving processes or atmospheric conditions required to produce a large number of *Kiruto*. Solutions were therefore sought through labour, evident in the constant tension about working hours that was present throughout the year that I spent at Kanai Kougei, that continued after I returned to the UK. This was particularly a problem for the flexible female labour that had benefited Kanai Kougei as the apparel business was established. Although Yukihiro-san seemed to understand and respect the conditions under which the female staff wished to work, even supporting their family obligations when he

could, shortly after I arrived in December 2017 the Shachō stubbornly insisted that he wanted all workers to become full-time. This meant 9am-5pm, six days a week, a schedule that did not always respect public holidays. Full-time work was seen as necessary to both increase manpower and to ensure there were no disruptions in production, since an absentee worker led to communication breakdowns that often resulted in mistakes. As I have demonstrated across this chapter, dyeing is a complex process, so with textiles passing between many hands information can be lost, i.e. how many times a garment has been dyed; which stage of production is it at; does it require finishing; the length of time it has been sleeping etc. Across several weeks Kazuko and Satoko tried to make full-time employment work, all the while looking exhausted, leaving me concerned for their health. Not able to get involved I felt angry about the pressure they had been put under, that was loosely framed as ‘work full time or quit’. Yet every time that I complained to Kazuko that the Japanese worked too hard, she would correct me saying this was not the case in the whole of Japan, ‘only in Amami’. The insistence on a six-day working week was indeed ‘old fashioned’, conflicting with modern working standards that Yukihiro-san had tried to implement to establish a sustainable source of *casual labour*. But it even appeared to act as a barrier to attracting *full-time labour*, since Yukihiro-san had struggled to secure staff willing to do this demanding job for such low wages. Akiyo for example, who was young, strong, and had little responsibility aside from helping her parents run the house, managed full-time employment better and she enjoyed the work. But she would also complain of a lack of energy, being too tired on Sunday to do hobbies or found herself distracted by housework. Eventually Kazuko and Satoko slipped back into part-time work realising it was physically and mentally unsustainable, and the Shachō too gave ground on his stance. Akiyo however has since left Kanai Kougei and Amami to pursue personal projects, it being unclear whether she will return to the island or to the dyeing profession anytime soon.

Since Kanai Kougei have struggled to expand the workforce, consequently Yukihiro-san makes projects happen by devaluing his own time. He works long hours for low wages and can be found at the workshop most days. This is because he tries to plug gaps in manpower, but also because he holds all the knowledge; overseeing multiple commissions that are under production at any one time. Angela McRobbie’s work with fashion designers in London and Berlin (1998; 2015) and anthropologist Laura Bear’s research with river pilots in India shows how love of one’s profession can be

used to solve financial deficit and fix the problem of industrial time. Instead of overwork being a condition specific only to Japan, a country that has gained a poor reputation for *Karōshi* (overwork death), exploiting love of one's profession might be said to be a method recognised globally.

Bear's ethnography with river pilots that steer huge container ships along India's Hoogly river shows how responsibility is pushed onto the individual in order to overcome failing infrastructure, the result of austerity measures because of huge state debt (2015:138). The acquisition of skill, 'heroic agency', comradeship and love for the river combines experience, knowledge, sensory capacities but also old and new technologies (ibid). Bear explains that central to these skills is the ability to 'overcome the problems of timing by achieving fusion with the ship and the forces of wind, waves, current and tide on the river' (ibid:140). A pilot's "sense of workmanship" (ibid:178) is measured by one's ability to manage time, as Bear writes:

timespaces of labor are now full of incommensurable forms of social and nonhuman time that are in increasingly in conflict. As a result all of us, like river pilots, are frequently faced with the challenge of trying to bring into relation through our labor divergent rhythms and temporal representations...circulation will continue as long as we continue to see these difficulties only as a problem of time' (ibid:149).

If it is not possible to reduce costs using free natural resources, or chemical agents to reduce production times, then exploitative labour, even self-exploitation, is often the only option that remains. This reveals the friction between 'real subsumption', Marx's term that explains 'the ability of capitalism to progress...to encompass all' (La Berge 2019:22) and an individual's willingness to work more hours for less money that might conflict with their pursuit of the 'joy of living.' As English scholar Leigh Claire La Berge, who has studied academic and artistic vocations, explains: 'in a regime with a goal of extracting absolute surplus value, the working day can be extended to increase profit. But that increase has an end, obviously, and after it's limit has been reached, a regime to extract relative surplus value takes over' (2019:22). This situation is reflective of labour becoming increasingly individualised across the world, where in the realms of neoliberal capitalism workers take on more responsibility for their own labour as workloads have increased and new technologies accommodate increased flexibility. This includes the expansion of work into areas of time and space not typically considered the domain of work – taking clients to dinner in the evenings

or replying to emails and text messages from colleagues at the dinner table. This sprawling of the working day sees those continue to work not because they necessarily want to, but because they feel under pressure to achieve or to perform an expected role, feel obliged to their superiors and colleagues, or need to provide a basic level of income for their families. They may also take pride in the integrity of the work, wanting to do the best job possible, or feel placed under strain to maintain their reputation as a hard worker.

Claudio Sopranzetti shows how his participants – self-employed motorcycle taxi drivers in Bangkok – use the narrative of the pursuit of ‘freedom’ as a way to ‘make sense of and make do with the political, economic, social, and conceptual shifts’ that infiltrate their daily lives (2018:110). In a discussion with one of his participants he describes how taxi drivers celebrate being their own boss, who besides working longer hours than they did on the factory floor, are happier with their sense of freedom, and the pride and personal dignity of being able to pursue entrepreneurial activity. This form of ‘self-exploitation’ was a ‘sacrifice’ that allowed his participants to make their own decisions and benefit from the profit of their work, despite the risks and uncertainty this brought for themselves and their families (ibid:128-129).

In the Japanese context, Klien also notes the ‘freedom’ narrative among her participant lifestyle migrants in rural Japan. She explains that many left jobs as *sarariimen* (salary men) in Japanese companies where they’d been subject to overwork, confined by hierarchy or lacked the agency to pursue ‘creative dynamism’ (2019:xxvii). On moving to rural locations, her participants lived and worked ‘in the moment’ without long-term trajectories, providing them the time to figure out their next career move. Yet she notes ‘freedom’ coexists with ‘ephemerality’, creating a ‘grey zone’ where ‘individuals attempt to create something new and find themselves entrapped in existing systemic constraints’ (ibid). Sopranzetti neatly concludes after Marx, that ‘freedom becomes the hook that drags people into a false sense of empowerment while carrying them into accepting and participating in contemporary capitalism or similarly oppressive projects’ (2018:130-131). He shows that emancipation via entrepreneurialism can be as oppressive as working for a company, since the ‘hardest boss’ is often oneself (ibid:130).

Despite the fact that my participants continue to be subject to the pressures of the market, an outside force that is beyond their control, what I believe my case study shows are the compromises, contradictions and complicities that they must expect to make their life and business economically sustainable. These compromises are made in order to pursue the acquisition of craft skill, to build ‘communities of practice’ (Lave and Wenger 1991) and to establish a ‘connectedness to nature’ (Yoneyama 2019). These skills, communities and connections accumulate to repatriate a sensory autonomy from the disempowerment of the market, an autonomy that is reflected in the vibrancy, shade and taste they can achieve when making colour. Finding value in the ‘joy of living’, an endeavour that is always an evolving target, subsequently serves a double purpose. It both works to improve one’s quality of life, but the objects that my participants make, and the images of their lifestyle capture at least an *ideal* of ethical, joyful, rural living that radiates skill, community and nature. This is communicated to an audience via images displayed on social media or high-end lifestyle magazines, creating an added value that can be traded upon to sustain that very lifestyle. By trading on this lifestyle, my participants can also strengthen local industry and traditional practice which offers a broader conception of affluence – even if it comes at a personal cost.

It is important to recognise that improving one’s own quality of life can result in a grassroots approach to craft preservation that often evolves into a political project. Those who move to rural locations often become more politically engaged than they were in the city, whether intentionally or not, as they are drawn into micro-issues of local politics in order to offset anxiety about the things they care for. Quite early on in my research I recognized that Yukihiro-san was engaged in the future of *tsumugi* through his creative reformulation of tradition, but he was also variously visited by suited *sarariimen*, high ranking officials from Kagoshima Prefecture, or companies who wanted to inject money into *tsumugi* to reboot the industry. Without asking for it, Yukihiro-san had become a spokesperson for what *tsumugi* could become. This resulted in meetings that he organised with local bureaucrats in an attempt to raise the wages of all *tsumugi* craftspeople – from the dyers to spinners to weavers – through a government supported stipend scheme. Yet the problem of working hours reoccurred during these discussions. As of September 2019, it was agreed that *tsumugi* craft workers would be paid an additional 100,000JPY (approx.730GBP) a



Yukihiro-san leading a *dorozome* workshop at the 'Good Neighbors Jamboree 2018' a music and lifestyle festival in Kagoshima.

month by the government – a substantial amount given that dyers were either on minimum wage (at this time 958JPY per hour /about 7GBP) or worked on a piece-work basis that resulted in wages inequivalent to the quality of their craftsmanship. At this time, it was explained that support was only going to be available to those who worked full-time – in effect directly discriminating against those with caring commitments, who tended to be female. This was not surprising, given that female voices were not included in the negotiations that have continued in fits and starts for over three years.

While Yukihiro-san was directly involved in initiating these early discussions, as of October 2020 direct control of the negotiations appears to have been handed over to the *Orimoto-sans*, the *tsumugi* weaving companies, who orchestrate the production of *tsumugi* cloth (introduced in Chapter 1). Dyers have typically been at the bottom of the *tsumugi's* hierarchy because, although highly skilled, their work is hard, dirty, manual labour. The *Orimoto-sans* however, have historically sat at the top of this hierarchy, meaning they have latterly redefined the conditions under which one could apply for the stipend program. Workers had to be full-time, but they were also

required to be new apprentices working in the craft for under two years to qualify. Akiyo and a second Kanai Kougei craftsman (employed after my fieldwork) applied for the program, but neither were accepted. Instead, support had been given to other people chosen by the *Orimoto-sans*.

Although the increased cachet of manual labour has, in recent years, given it an aura that exceeds any association with class, the example of these wage negotiations demonstrates that the value attached to the labour power itself has not shifted, since old power hierarchies still persist. Yukihiro-san was nervous of upsetting this hierarchy, and of taking an active responsibility for the negotiations, even though members higher up the chain seemed incapable of bringing about effective change. Yet he had learnt which battles were worth fighting – whether with the Shachō or the *tsumugi* industry – knowing that he had greater autonomy among influential creative networks located elsewhere. Yukihiro-san was being forced to negotiate the ‘multiple temporalities’ (Shove et al 2009:3) that dictate the social norms established in a place – a navigation between understandings of history and its ties to specific geographies. He stood in the unique position of being able to bring Tokyo and Amami together via his family’s craft pedigree and his own metropolitan mobility, and was being asked to present a future that sat somewhere between traditional craftsmanship and modern entrepreneurialism. Doreen Massey argues that re-thinking ‘the relationship between past, present and future can help us reinvigorate the way in which we conceptualise geographical places ... it helps us to think of them as temporal and not just spatial: as set in time as well as space’ (1995:186). This conceptualisation of place as both geographic but also temporal disrupts the narrative that rural places are slow and traditional, while the city is fast and modern, a debate that I pick up on in Chapter 3.

I suggested to Yukihiro-san that although he initially faced resistance, the work he was doing now was helping to solve a broader issue: the island’s precarious economy. He was bringing work, finance and labour from the mainland that was promoting and sustaining *Oshima tsumugi* – whether those at the top of hierarchy wished to admit it or not. Yet he told me:

Back then [in the early 2000s], somewhere in my mind, I hoped it would be like that one day. But I am not the kind of person who could do something with such a sense of responsibility. So, relatively speaking, [pursuing craftwork] was truly something

personal. But I am quite surprised and find it interesting that how I hoped for it to evolve is actually turning into a reality.

By being attentive to a practice he had taken for granted, Yukihiro-san discovered something he cared for. *Dorozome* has a history that stretches back across the cultural, geographic and economic history of Amami, and held a prominent position in his family's own history. But as a process it has also provided him with new skills and resources, and access to communities and opportunities to make his own mark as a craftsman. The alchemy involved in creating coloured textiles produces physical, material, and visual results, but also generates knowledge, finance, and social networks that stimulate discourse around craft. Yukihiro-san doesn't believe that this accumulated 'wisdom' has to end its journey with the kimono, and through persistence and patience his combined craft practice and entrepreneurial acumen has shown that the skills embedded within *Oshima tsumugi*, although traditional, have relevance for the here and now. The ways in which Yukihiro-san and his employees are tied into cycles of self-exploiting labour, while problematic and contradictory, should perhaps be considered distinct from the self-exploitation that occurs in the context of urban neoliberal creative industries, where the individual is foregrounded – whether they exist within creative communities or not. Amami's craftspeople achieve enriching interactions with a diverse understanding of community and environment that are not only the result of spatial displacement, but due to the necessity of interacting daily with varying temporalities – for instance, in production processes that are designed to speed things up, and those that require extended time and care to achieve durability and aesthetic depth. In Chapter 3 I shift the focus from dye materials to food as conduit to understand better how these different temporalities function in building stronger connections locally, and pick up as yet unaddressed questions surrounding the environmental ethics of commodity production.



Chapter 3: 'Mottainai!' What a waste!



I've never really lived in places other than big cities, like in Tokyo or London. I am finding a new me here, you know? Life is really different. You don't get dressed up every day ... and don't get really stressed about it. Once you are in Tokyo, shopping is like another form of sports. People work Monday to Friday and then on the weekends they do sports-slash-shopping ... I think our generation started to realize something that we value more than labels or materialistic purposes. I don't know when that shifted, but I began to be more interested in those kinds of aspects (Koki, 33).

Koki had relocated to Amami from Tokyo to explore the processes of *Oshima tsumugi*, later learning to weave the kimono cloth himself. Although his post-materialist attitude is not necessarily widespread, a lineage of financial instability and environmental disasters in Japan have led to a general decline in materialistic attitudes that peaked worldwide in the 1980s. The moment of national reflection that followed 3.11, has been a significant factor in this growing disinterest in commodity culture. The disaster brought into sharp focus not only economic instability, but Japan's precarious food, energy and infrastructural security, questioning the political foundations that these had been built upon.

Historian Eiko Maruko Siniawer (2014; 2018) describes the shift that Koki hints at, where a millennial generation (and those whose ages skirt around it) have become increasingly concerned with the concept of wastefulness – what the Japanese term *mottainai*. Described by my friends as a feeling of ‘what a waste’,



Tsukumogami - objects with lives

mottainai is generally discussed in relation to leftover food or waste materials that could be reused in other ways. Anthropologist Julie Valk refers to the expression, that she translates as ‘it’s a shame’, in her study of kimono culture in Japan, since she heard the word used often by women in regard to kimono lying unworn in their *tansu* (kimono drawers) (2018:68). *Mottainai* is fascinating because the word is thought to have taken on different meanings in different historical periods, reflecting the wider socio-political landscape. Dictionary definitions date the word’s origins to the thirteenth century, when it was used to describe ‘trouble, harm, and impropriety’ (Siniawer 2014:165), but *mottainai*’s popularity swelled after WW2, when Siniawer claims that language from the turn of the century ‘about health, hygiene, efficiency, and rationalization’ was resuscitated to ‘urge waste consciousness in the workplace and at home’ (2018:12). Waste management at this time became essential for survival, ‘but also to make Japan civilized and modern once again’ (ibid). Suffering was so widespread and resources so scarce that *mottainai* practices were a necessity. Siniawer references the example of the author Imai Misako’s father-in-law who ‘was taught during the war that material things have lives’, while the wartime motto ‘Luxury is the enemy’ became ingrained (2014:170-171).¹ One’s possessions were to be cared for, maintained, repaired or reused to sustain their useful lives, while resources - food, energy and so forth - were to be used frugally. Siniawer argues that there is a common misconception that the Japanese are more frugal than other

¹ For example, see the *Tsukumogami*, or tool kami’s where the power of the tool is linked with the spirit of its maker who may possess the object, or after 100 years of service may receive its own soul (Reider 2009).

societies, yet she suggests this myth resonates with ‘impressions of Zen...with clean aesthetics and simplicity’ (2018:8) that have come to define an idea of how the Japanese live, at least outside of Japan. *Mottainai*, however, can be said to resonate with wartime scarcity in Europe too. During WW2, for example, food waste was criminalised by the UK government with the ‘Waste of Food Order, 1940’ and rationing programmes extended into the 1950s.

While *mottainai* was embedded in the minds of those who had been debilitated by scarcity, after the war consumption was encouraged to kick-start the economy meaning the children of this generation grew up in a hugely different economic environment. Using a newly acquired disposable income, as described in Chapter 1, consumers in the post-war period bought into commodities of the future – electronics, designer clothes, imported foodstuffs – but also the nostalgia of tradition through *furusato* tourism or, in the case of *Oshima tsumugi*, purchasing expensive kimono. Jennifer Robertson (1991) suggests that this was a means to offset the anxiety caused by encroaching ‘westernization, industrialization, and urbanization’ (1991:29). As the country became rich, waste reflected an undesirable ‘excess’, but also that ‘the desirability of a middle-class life had become so deeply fixed’ that ‘its conveniences and comforts were not to be sacrificed but defended’ (Siniawer 2018:13). When waste management spiralled out of control in the 1970s, for example, Tokyo’s governor fought a ‘war on waste’ through increasing landfill and incineration, and calling on companies and government regulators to encourage recycling schemes. These responses saw existing infrastructure as the problem, not the act of over-consumption itself (ibid:93-94).

In line with its war-era usage, I heard *mottainai* mentioned in regard to fallen *tankan* (tangerines) that no-one was collecting, but also in regard to the clearing of trees for paper pulp on the mountains (see Chapter 6) and the rebuilding of Amami’s natural beaches to a tidier style preferred by tourists. These feelings expressed a sorrow about the ‘waste’ of the natural environment – a direct result of economic intrusion. This newer formulation is supported by Siniawer who claims that waste, by the 21st century, has expanded to include all that is wasteful in one’s everyday life – time, money, work, food, resources, skills, nature. She quotes data from the Japanese Cabinet Office that contrasts attitudes from 1975 when people felt that material wealth (*mono no yutakasa*) was more important than what anthropologist Shoko Yoneyama (2019)

terms ‘spiritual wealth’ (*kokoro no yutakasa*). Yet by the 2000s, attitudes had reversed resulting in – ‘environmental commitments, a search for individual and national identities, and attempts to define anew relationships with things and with time in continued pursuit of an affluence of heart, mind, and spirit (*kokoro no yutakasa*)’ (Siniawer 2018:14). Although this outlook might be considered optimistic – with my ethnography demonstrating the inconsistencies between discourse and practice – the argument presented in the previous chapter supports at least the continuous attraction of this ideal, as my participants in the Ryūkyūs pursue the joy of living over economic advancement by establishing meaningful identities and social relationships around their work. 3.11 sparked a moment of reassessment that saw many people like Koki question their career, living conditions and lifestyle choices. This prompted a move to the countryside that eases the way for a rejection of materialism, since one will need to accept a lower income than was achievable in the city. Koki also points to the fact that in the countryside one’s lifestyle – and the commodities that support that lifestyle – become scaled back. In Amami a good pair of *bīchisandaru* (beach sandals) can be more essential than multiple pairs of shoes, and when working at a dye workshop one relies on a supply of old clothes not smart new ones. Consequently, there is a natural tendency for people to become more resourceful and inventive and avoid wastefulness to satisfy material needs.

In this chapter I will unpack in more detail the reasons why *mottainai* has gained a renewed energy in the 21st century, and attempt to understand what this might mean for the way people live their lives in Amami beyond the confines of Kanai Kougei’s workshop. Through the example of my participants, I argue that a post-materialist generation, those approximately between the ages of 20 and 40, attempt to reformulate a sense of ‘affluence’ not in material or financial terms but by adopting attentive practices towards their local community, culture, and natural environment. I should stress that none of my participants resemble radical, ethical citizens like John Knight’s (1998) organic pioneers discussed in the previous chapter, whose ‘back to the land’ movement aimed to resist the capitalist state. Rather than being wholesale resisters, they are ordinary people trying to do their best within their own means. This sees them engage in a politics that is grounded in community action and participation with a growing respect for the natural environment that does not necessarily involve direct care.

Key to this discussion is the context of Japanese environmental history that I will make legible through everyday engagements with food. My reasoning behind this focus on food stems from the dominant role I experienced it playing in Amamian social life, but also its importance within both contemporary and historical national debates in Japan. I look at why those moving to rural regions, particularly but not exclusively mothers, are driven by a need to better understand food and control their own food security. I suggest this offers a path back to community and the environment that requires re-engaging with the natural world, considering how one can live more attentively and thereby ethically. I begin to pose the question whether these ethical values might be extended to textile production, and argue that developments in food activism might be seen as a precursor towards a consumption of commodities that is subject to more considered regimes of care.

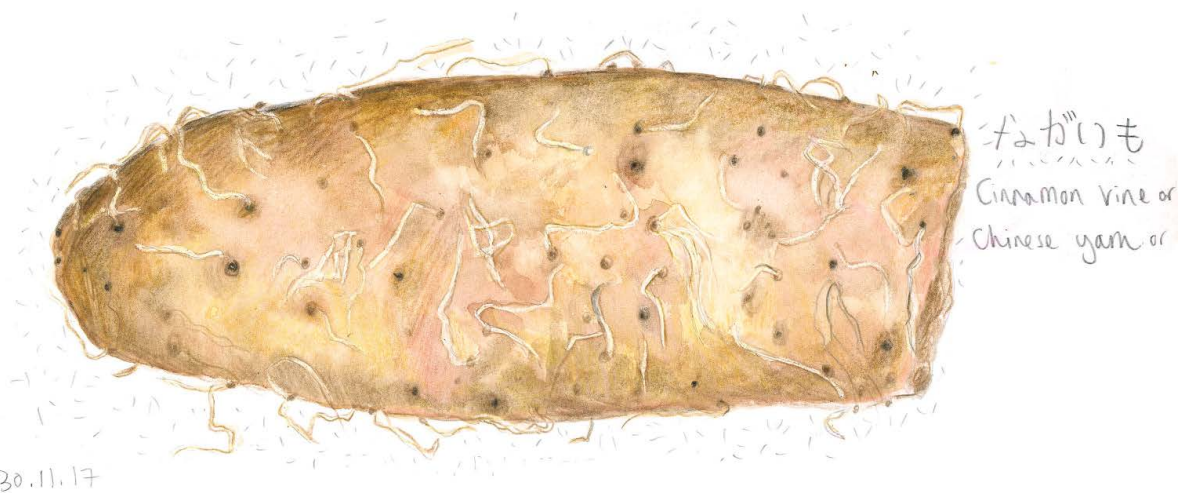
Seeking security



Akiyo with Kazuko's sons Nisa-kun and Chiraku-kun

Since the beginning of January in the year of my fieldwork, the female dyers at Kanai Kougei had been discussing collecting *aosa* (*Ulva pertusa* or green laver) from the beach. A common type of sea lettuce that is collected and eaten globally, *aosa* is rich in protein, fibre, amino acids, vitamins, and minerals. In Japan, where seaweed is said

to make up 10-25% of the diet, *aosa* is added to miso soup or cooked tempura-style (Yaich et al. 2011). Food was a popular topic of conversation amongst the staff at the workshop, as we discussed the contents of each other's *bento* (lunch box) or observed the foodstuffs that passed through the office when resting at *kyūkei* (tea break). Beautifully wrapped snacks brought by visitors: *senbei* (rice crackers), *mochi* (sweet rice balls) *dorayaki* (red-bean pancakes) were omnipresent *omiyage* (souvenirs) from visitors' home Prefecture, that waited to be eaten on the communal office table. They would vie for room with summer cucumbers, daikon and bananas grown by the *tsumugi* dyer Kazu-san on his *hatake* (allotment). Huge jars of organic honey or sacks of organic brown rice ordered by Satoko or Kazuko from contacts on the mainland would be distributed to staff who would collectively split the shipping costs. Eriko-san, the workshop's administrator and mother of the Kanai children, also took advantage of Japan Post's efficient system for shipping seasonal fruits and vegetables across the country. Arriving into the office, hairy *nagaimo* (Chinese yam) from Hokkaido slept in sawdust-filled cardboard boxes, and perfect plastic-packaged strawberries from Fukuoka were gifted to workers as treats by the Shachō. Stacked cartons of Amamian *tankan* and passionfruit meanwhile, would wait to be collected by the postman as return gifts to friends and relatives on the mainland.



Satoko would frequently glance up at the tide calendar pinned to the wall of the office identifying the low spring tides ideal for collecting *aosa*. An I-turn resident, Satoko (41) had been living in Amami for 14 years since removing herself from the 'temptations' (her own words) of her hometown Kyoto. Employed by Kanai Kougei part-time on-and-off for several years, Satoko began to train in *tsumugi* dyeing at another workshop, but quit when she became pregnant with her second child. She is an accomplished home cook who has gained a reputation for her knowledge of

Japanese but also Amamian local ingredients, her dexterity with natural dyestuffs, love of *shochū* (the local sugarcane rum) and warmth of heart. Coinciding with the return of the sun, Satoko led a plan to go to the beach to collect *aosa* with a picnic, that we would eat beneath the newly blossomed *sakura* (cherry blossom) trees.

Amami, alongside Okinawa and the surrounding Ryūkyū islands, are the first to enjoy this sign of spring just a few weeks after New Year. Although *sakura* is adopted commercially year-round as a symbol of ‘Japaneseness’ (Moeran and Skov 1997), it is during spring that *sakura* fever peaks. The activity of *hanami* (cherry-blossom viewing), often accompanied by a picnic, is just one of the ways that nature is used to celebrate the beauty of the changing seasons and mark the passing of time (Ackermann 1997).² Dorinne Kondo suggests that the passing of the ‘four seasons’ (*shiki*) has potency in Japan since each is climatically distinct and marked by ‘culturally constructed seasonality’ (1990:242). This seasonality manifests itself through *matsuri*, food, dress, activities, and even commodities (Daniels 2009) that become ‘part of everyday existence and cut across class and regional boundaries’ (Kondo 1990:241).

All over the country from January to May crowds gather to enjoy white or pale pink *somei yoshino* (Yoshino cherry), the most popular variety so beloved since the petals flutter in the wind like snow. Amami’s *sakura* (*higanzakura* or Higan cherry) has robust magenta pink flowers that resist the wind and rain, and since the forests mostly retain their leaves throughout the winter, for several weeks the *sakura* glows like beacons against bottle green mountains. The trees did not draw the crowds I have seen in Tokyo, Kyoto, or Fukuoka. Planted in recreational areas and on the paths to Buddhist and Shinto shrines, they seemed relatively young on account of their diminutive size, suggesting that they were planted in the post-war era when the nostalgia boom proliferated and Amami’s fortunes swelled on the back of *Oshima tsumugi* (see Chapter 1). This was also a time that the local economy was boosted by mainland finance in order to raise the standards of living, but also through compensation paid out by Japan following the occupation of the islands until 1952. In Douglas Haring’s archive, the American anthropologist who spent six months in Amami between 1951-2, he notes that by 1962 60,000,000USD (almost 5 billion

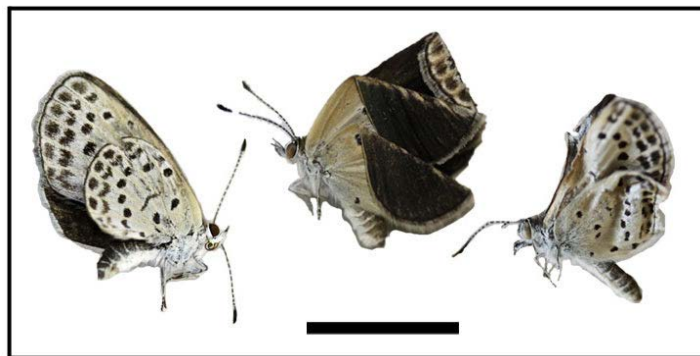
² In central Honshu *sakura* blooms coincides with the start of the new academic and financial year.

USD in today's money) had been spent by the US and Japanese governments on construction in Amami alone. This paid for extensive tunnel boring through Amami's mountains that connected villages with newly built roads, power stations, schools, hospitals, and one might imagine, recreational areas. From an historical perspective, it could be argued that importing and planting Japanese seasonal plants was a way to tie the long archipelago together as 'one nation', since the country spans subarctic Hokkaido to subtropical Okinawa, each with its own distinct flora and fauna but also seasonal cultural traditions. Amami's seasons are not climatically distinct; it has a short winter (December-February) when the temperature drops to around 11-14°C. Spring is brief, giving way to a long summer (around April-November) peaking around 30°C. The rainy season (May and June) and typhoon season (July-October) produce weather that is sporadically powerful, rather than the daily norm.

Kazuko, a 37-year-old dyer who quickly became a great friend but also a key research collaborator, told me that when she first moved to Amami she missed 'traditional Japanese plants', and the sights and smells from the blossoms of *somei yoshino*, *ume* (plum) and *momo* (peach) that marked the arrival of spring. She also missed the *koyo* (red leaves) of the *momiji* maple – whose range didn't extend as far as Amami – as the turning of the leaves sweeps back across the country from the north of the archipelago in autumn. Kazuko and I spoke often of how concerns around radiation had prompted her family's relocation; her first son Chiraku had just been born and if Tokyo had become 'dangerous' she didn't want him growing up there. The circumstances of 3.11 demonstrate that this anxiety did not exist without reason. The earthquake had significantly damaged the buildings at the Daiichi Nuclear Power Plant, but the back-up generators designed to cool the reactors in the event of an emergency had been destroyed by the huge tsunami that followed. Overheating led to explosions leading to the release of radioactive materials from the reactors but also spent fuel rods that were being stored in perpetuity (Brumfiel 2011:435-436). These materials contained dangerous caesium-137, a cancer-causing isotope that can exist in the environment for 30 years, whose immediate impact on human health is difficult to quantify (ibid). Models created by a volcanologist show how radioactive particles were taken up and out with the wind across the Pacific Ocean on March 11th, but on March 14th the wind changed direction blowing dust filled clouds over Tokyo (ibid). Radioactivity did not literally rain down on the city, instead the clouds dropped their load further inland, back towards the plant and Japan's northern mountainous areas, a

key food producing region. In May 2012 Tokyo Electric Power Company (TEPCO), responsible for running the power plant, released data that suggested 900,000 terabecquerels of radioactive materials had been released into the air at the time of and the days following 3.11.³ These huge numbers were reported to ‘correspond to 17% of the amount for [Ukraine’s] Chernobyl plant, the site of the world’s worst nuclear disaster.’⁴ 150,000 terabecquerels meanwhile had been released into the sea, a number that continues to rise (Yoneyama 2012:1). To add to the uncertainty experienced in the aftermath, figures released by the government, TEPCO and independent scientists did not align, with news reports suggesting that the government figures have severely underestimated the extent of the fallout. Newer scientific papers instead argued that the radioactive damage could be closer to 50% of Chernobyl’s spill (ibid).

Wing shape and size deformations of the pale blue butterfly; physiological and genetic damage caused by radionuclides from the 2011 Fukushima nuclear spill. Image: Hiyama et al.2012.



As a result of the triple disaster, around 20,000 people were reported as missing or dead, 350,000 people displaced (Allison 2013:185), thousands of livestock and domestic pets killed or abandoned, while wild plants and animals have suffered genetic mutation and population decline (Mousseau and Møller 2014). Clean-up and compensation costs are running into the trillions, and the radiation problem is proving impossible to solve. Background radiation but also contaminated food products had cast a heavy anxiety over the country that hung like a radioactive miasma. One can easily understand why Kazuko felt that Tokyo had become dangerous and why a drastic move to the southern reach of the archipelago – to Amami, where her husband had business contacts – was a risk worth taking.

³ Becquerels are the unit used to measure radioactivity, while ‘tera’ represents a trillion. Obe, Mitsuru. ‘Radiation Release in Japan Higher Than Reported’. *Wall Street Journal*, 24 May 2012.

⁴ Ibid.

National (in)securities

Fresh concerns about food security in the aftermath of 3.11 surfaced from a history of food scandals that have troubled Japan since at least 1955, when arsenic-poisoned powdered milk produced by Morinaga Milk company resulted in the death of over 100 children (Assmann 2013:181). Sociologist Stephanie Assmann says that mislabelled food products, foods laced with illegal levels of additives and pesticides and expired ingredients have caused outbreaks of food poisoning as recently as 2008 (2013:170-171).⁵ Assmann has chronicled a range of food scares across her work on the rise of Japan's Slow Food movement, through which she concludes consumers are increasingly turning to regional (often organic) produce for its nostalgic properties but also its health benefits and trustworthiness (Assmann 2010:243). Low quality domestic and imported ingredients have prompted anxiety about Japan's food security, where figures for 2018 show a record low of only 37% self-sufficiency.⁶ This is the result of import deals with overseas producers such as China and the United States, with the latter flooding the market with Californian rice (Harvey 2003:161) and catering to a shift in diet towards meat, dairy and wheat.⁷ But low self-sufficiency has also been blamed on the fall in number of domestic farmers, the consequence of long-standing outmigration that has depopulated agricultural regions and a lack of policy to protect farming livelihoods (Assman 2016:244).⁸

Food security in Japan, while also being under threat globally, has become an increasingly contentious topic. This was particularly apparent after 3.11, when the Japanese government came under significant criticism for its stance on food contaminated with radioactive materials. It was a prime example of how science is increasingly understood less as an objective reality, but as a subject influenced by ideological bias (Latour 2004). In order to maintain social order and protect the economy it was widely understood that the government presented scientific facts in a way that suited their objectives (Sternsdorff-Cisterna 2015:456). In January 2012, an

⁵ The most significant scandal in recent years was a case of *gyōza* (dumplings) from China containing traces of pesticides.

⁶ Yamashita, Kazuhito. 'What's behind the Food Self-Sufficiency "Crisis"?' *RIETI*. 5 September 2019.

⁷ Kazuko shared with me details of a California-based health food store called iherb that shipped dry goods to Japan for free with a \$50 spend. We used this service to access affordable, organic foods that dramatically undercut Japanese producers and importers of organic foodstuffs.

⁸ Yamashita, 'What's behind the Food Self-Sufficiency "Crisis"?'

emergency standard allowing 500 becquerels per kg of radioactive caesium was passed as safe in domestic vegetables, grains, meat, eggs and fish.⁹ Four months later the limit was dropped to 100 becquerels (Sternsdorff-Cisterna 2015:456). While this seems considerably stricter than EU levels (1250 becquerels per kg), the regulations state that a comparison cannot be made since they '[take] into account the estimated impact of the amount of food ingested' and 'the proportion of food containing radioactive substances'.¹⁰ Since Tohoku is a major food producing region, the lower limits in Japan suggest widespread radioactivity in food products but also the water supply, meaning consumers should distribute their radioactive intake across their diet. Anthropologist Nicolas Sternsdorff-Cisterna (2015) states that the health impact of long-term, low level radioactivity is difficult to measure so the government's lack of transparency and safety guarantees led to widespread mistrust in the period following 3.11. This was against the backdrop of the aforementioned downplaying of the nuclear fallout, and accusations that the government had colluded with the nuclear industry to prioritise the protection of the economy above the health and safety of the people and environment.

Accusations of environmental negligence have been made against the Japanese state since at least the 1950s. While most industrialised nations have faced – and continue to face – similar charges, the scale and consequence of environmental pollution in Japan drastically contrasts with the nation's image as one that lives in harmony with nature (Kagawa-Fox 2012:3-8). The rush to industrialise after WW2 meant that by the 1970s Japan was the world's second largest economy, but also one of the world's largest polluters. The Chisso chemical factory's dumping of Mercury-rich wastewater in Minamata Bay, Kyūshū from 1956 is perhaps the earliest, most widely recognised environmental disaster in Japan that cemented the country's poor environmental reputation globally. Tens of thousands of locals were poisoned through the consumption of sea products that caused Minamata disease, a debilitating and deadly neurological illness, alongside the deaths of wild and domestic plants and animals. For over 30 years the government and the Chisso Corporation demonstrated 'avoidance behaviour' (Pharr 1992:151) by denying the extent of the problem, and were unwilling to take responsibility. It was only through international exposure of

⁹ Fukushima Prefecture. 'Japanese Standards on Radioactive Substances in Food and Overseas Indexes'. n.d. Accessed:14.7.20 <https://www.pref.fukushima.lg.jp/site/portal-english/en01-03.html>.

¹⁰ *ibid.*

Japanese malpractice by American photojournalist W. Eugene Smith that action was eventually taken. Smith's images of Minamata and its sufferers were published in *LIFE* magazine in 1972. *The New York Times* reported that copies were 'rushed off' in time for the United Nations Environment Conference 'where it created a sensation'.¹¹ A range of legislation in the 1970s saw industry in Japan clean up its act, since the government recognised that environmental regulation was essential for international trading relations (Kanatsu 2013).

At the same time as this legislation came into place, Japan developed its nuclear power industry in order to maintain its industrial and economic standing. This development was considered necessary since Japan is a 'resource-poor country', having limited access to domestic oil and gas while coal is buried too deep to mine efficiently. After WW2 the country utilised cheap Middle Eastern oil to help rebuild its economy. But the oil shocks that rocked the global economy in 1973, the result of an embargo implemented by Arab oil producers who raised the price of crude from \$3 to \$12 per barrel, led Japan to seek energy self-sufficiency.¹² 'Belief in technology' meant that the government pursued the atomic option, despite the suffering atomic weaponry had inflicted during the war (Kanatsu 2013:289). In 1974, the government implemented the 'Three Power Source Development Laws' (Dusinberre 2012:153). These laws were designed to enable the buy-off of opposition from local fishermen, farmers, and women – not to mention sufferers of the atomic bombs (ibid) – to the planned construction of power plants in depopulated regions. Historian Martin Dusinberre explains that the laws allowed tax paid on energy bills 'to be funnelled back into power station host communities so as to fund major infrastructure projects (roads, schools, port development, and so on) over an initial five-year period' (ibid). While these were made available to any community that hosted a power plant, nuclear power stations supplied the biggest bounty (ibid). By the 1980s Japan had subsequently become one of the world's biggest supporters and users of nuclear energy (Dusinberre 2012). This powered the economy via industry, but also the supply of energy to the homes of those increasingly accustomed to middle class convenience. 'Nuclear villages' received financial benefits to ensure power supplies in

¹¹ Thornton, Gene. 'Photography View'. *The New York Times*, archives. 11 May 1975.

A compensation agreement was eventually reached for Minamata victims – but this only came about in the early 2000s (Yoneyama 2017).

¹² Macalister, Terry. 'Background: What Caused the 1970s Oil Price Shock?' *The Guardian*. 3 March 2011.

megacities like Tokyo were maintained, ‘which resulted in hiding or not appropriately dealing with the potential dangers’ (ibid). The meltdown of the reactors in Fukushima and the extent of the devastation, although caused by natural disaster, was ultimately blamed on human error for lack of preventative and emergency procedures overseen by government regulators. Political scientist Takashi Kanatsu states that TEPCO and the government were warned of the need for repairs to the plant as early as 2000, but collusion amongst big industry, local bureaucrats and government ministries meant these warnings were ignored (2013:306-7). Kanatsu states that the economy was prioritised at the local level in order to satisfy national targets (ibid:307).

This ‘evasion of responsibility’ that was demonstrated first in Minamata and later by the bureaucratic ranks in Fukushima highlights an issue with the concept of Japanese ‘groupism’ where individuals conform to hierarchical roles working for the health of the group. Widely considered to be responsible for Japan’s post-war economic miracle, groupism has many benefits and is encouraged from an early age at home and school so that it can later develop in the workplace (Kondo 1990:301). Anthropologist Fiona Graham, in her ethnography *Inside the Japanese Company* (2003), explains that most modern companies were built by those who had migrated directly from villages. As a consequence, ‘the company is a kind of village’ (ibid:154) where workers demonstrate ‘mutual sympathy, comfort, mutual help, co-operation, and familiar cultural environment’ – in effect, traits that work to distribute risk (ibid:155). Individual blame is avoided, unless an individual steps forward to sacrifice themselves for the health of the group. But at the same time, if an employee or community member does not fit in they might be subject to ‘ostracism and bullying’, revealing the tensions inherent in the dichotomy between the group and individual (ibid). At an individual level, Brian Moeran argues that ‘avoidance behaviour’ (Pharr 1992:151) is omnipresent in Japanese society in his compelling book of ethnographic fiction *Ōkubo Diary* (1985). Moeran attempted to identify who was at fault for a spinal injury his son obtained when diving in his elementary school’s swimming pool while his family were on fieldwork in the Oni valley. He found that each party – the teacher, the school, the Education Authority, to the national bodies of the Japan Swimming Federation and the Ministry of Education – feared that if an individual took the blame ‘the whole system would come under fire’ (ibid). Rather than make the incident public knowledge, Moeran was encouraged to stay quiet and take insurance money

for his son that he was told would be guaranteed for life. But in the face of rising costs he was forced to sue the Education Authority, leaving him ostracized from the community and labelled a 'foreigner' (ibid:246).

Understanding how groupism is deployed ethnographically, as in Moeran's case study, demonstrates how a nation can become paralysed by inaction if responsibility is evaded over concern it will damage the reputation, finances, or social standing of a member of the group, breaking the myth of social harmony. This was seen on March 11th with the exceptionally sad story of the Okawa elementary school in Ishinomaki, where 74 of 78 pupils and 10 of 11 teachers died in the tsunami. An independent enquiry confirmed that the deaths occurred because none of the staff broke ranks to defy the headmaster, who followed poorly prepared emergency procedures overseen by the Prefecture.¹³ It is difficult to implement change if individuals feel they are unable to speak up, or that if they do push back their concerns will be ignored. Anthropologist Andrew Littlejohn has shown how in 'old fashioned' areas, such as those affected by 3.11 where his research is based, 'conflicts between residents ... intersected with familiar social hierarchies, notably of age and gender' (2017:63.) As one of his female activist participants claimed, 'whatever the big-wigs say is gospel' (ibid). These 'big-wigs' tended to be older men, demonstrating the gender bias that plagues Japanese political life. The political environment, locally to nationally, is dominated by the Liberal Democrat Party (of whom only 10% of MPs are female) in a one-party system who have been in almost continuous power since 1955, bar an eight-month period in 1993 (Kanatsu 2013:285). Group mentality overseen by a powerful few has therefore meant that environmental disasters have been allowed to perpetuate since change is slow and resistance too often unable to make itself heard.

¹³ Parry, Richard Lloyd. 'The School beneath the Wave: The Unimaginable Tragedy of Japan's Tsunami'. *The Guardian*, 24 August 2017.



18.12.17 -

After 3.11, consumers who could afford to shop at trusted grocery stores bought organic or products from the west of Japan – those that they considered free of radiation (Sternsdorff-Cisterna 2015). Yet Anne Allison demonstrates the potential social consequences of resistance by explaining that when citizens (mostly between the ages of 20-40) refused or avoided eating produce from the Tohoku region, they faced accusations of being '*hikokumin* (non-citizenly)' by older Japanese (those 50 +) (2013:184 & 203). This generation insinuated that younger people were not supporting local farmers who desperately needed their custom and were acting against the advice of the state. This politicized rhetoric of helping regional economies through public consumption practices, was seen in the period following the First World War in England, where housewives were encouraged to 'Buy Empire Goods' (Trentmann 2007:1082). Frank Trentmann shows how government propaganda encouraged the purchasing of foodstuffs from across the British Empire – from New Zealand to Jamaica to Canada – to support the Empire's economy as the world entered economic depression. 2020's Eat Out to Help Out, a British government scheme that was rolled out across the UK following the country's strict COVID-19 lockdown, can be drawn upon as a more recent comparison to what was experienced in Japan following 3.11. The British government asked citizens to take risks (eating in restaurants with food prepared by, served, and eaten among strangers) in an atmosphere of high health anxiety, in order to help the national economy and prevent further closures in the hospitality industry.

In an environment where food becomes an ideological and political issue, and science is reframed to produce different accounts of reality, how might one demonstrate resistance but also foster solidarity that exists outside of state or corporate institutions? Sternsdorff-Cisterna describes alternative forms of less conformist solidarity that arose after 3.11 that counteracted that encouraged by the state. He documents the rise in 'scientific citizenship' that residents of Tokyo and affected areas in Tohoku used to educate themselves, so they could effectively navigate the food system and evaluate risk. Seminars, reading clubs and Geiger counters were all shared amongst local networks, an action that reflects Mathijis Pelkmans 'Outline for an Ethnography of Doubt' (2013), where he claims that doubt can be alleviated through processes of domestication. Pelkmans claims that doubt can be 'debilitating' and 'tempering', but it can also have an 'energizing effect', 'stimulating the quest for (academic) knowledge' (ibid:23), pushing one to seek resolutions and to stabilise uncertainty through everyday actions. In so doing, doubt is transferred 'to an area beyond the horizon of our immediate consciousness', despite it 'resist[ing] disappearing entirely' (ibid:22). Radiation is troubling in its invisibility and in the irregularities of its impact on human health, from the negligible to the extreme – premature death, cancer, cardiovascular disease and infertility. By making it 'visible' through education, the anxiety it produces can be temporally suspended.

The formation of these education networks following 3.11 was particularly promoted between mothers, since they were considered the 'providers' of the family. Female-led activism around food in Japan can be traced back to the Rice Riots of 1918, where housewives started a protest movement to highlight the rising costs of rice (see Chapter 6). Robin Le Blanc's classic ethnography 'Bicycle Citizens' (1999) describes how women have been locked out of the political world since they are overburdened with obligation for the house and home. But using the metaphor of the back streets and alleys navigated by women on bicycles, she shows how they use local networks to operate in alternative spaces to ones dominated by a male political class. Le Blanc suggests that although housewives might become engaged in local politics, they do not fully enter the political world since they have a general distrust of the political elite who they see as 'murky, money-hungry, male, and over organized' (1999:198). Although published almost 20 years later, Lynne Nakano (2018) similarly concludes her paper on 'housewife' activism, when she writes that that women will only be able to enter politics professionally, at an equivalent scale to men, if systematic gender and

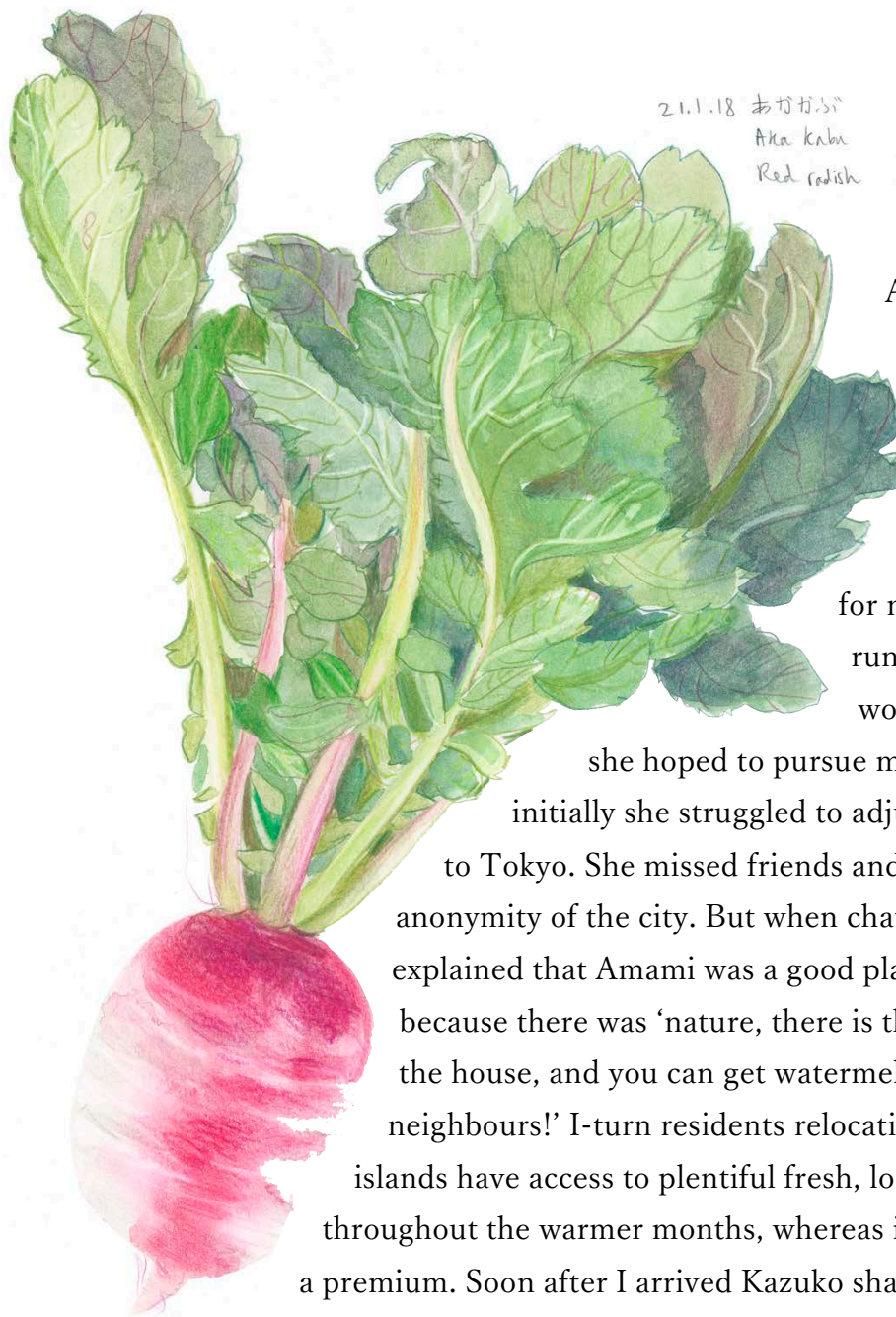
labour imbalances are addressed through the reforms of labour and tax laws that discriminate against women. It was using the strength of Japanese maternal symbolism that mothers protested against ineffective government policy and the favouring of 'corporate interests' (Slater 2011:4) in the aftermath of 3.11. Street protest 'that had not been seen in Tokyo for decades' where older anti-nuclear activists joined groups such as 'Women from Fukushima Against Nukes' (ibid:2) was also observed.

While concerns around food safety were documented by academics and popular media in the years following the disaster, nine years on the issue persists. A build-up of contaminated groundwater at the Fukushima site is approaching 1 million tonnes, and when storage units become full by 2022 the former minister for the Environment has said that the government will have no choice but to release and dilute radioactive water into the sea.¹⁴ This has prompted both international condemnation and protests by local fisherman who claim they have only recently begun to win back public trust. Late in 2019, I received an outraged message from a friend who told me that the government had released plans to recycle tonnes of contaminated soil to grow vegetable crops in Fukushima. While initially it was proposed that this soil with a reading of 1000 becquerels per kg could be buried beneath newly constructed roads across Japan (in affect redistributing risk nationwide) – an idea in itself that prompted NIMBY (Not-In-My-Back-Yard) protest – the plan was now to sort, decontaminate, and return it to farmland to solve the problem of long-term storage.¹⁵ Anthropologist Peter Wynn-Kirkby calls this the 'conceit of recycling' made to 'imbue the effort to remove radioactive dirt and other abominated debris with flattering hues of eco-responsibility and resource efficiency' (2019:3). It is not inconceivable that it could be seen as a solution to the economic problems faced by Fukushima's farmers who would be allowed to plant flowers or energy crops using this soil. But Wynn Kirkby argues, this prolongs the shadow of radiation that farmers here live under, who are desperate to regain their place as one of the country's largest food producing

¹⁴ McCurry, Justin. 'Fukushima: Japan Will Have to Dump Radioactive Water into Pacific, Minister Says'. *The Guardian*, 10 September 2019.

¹⁵ KYODO. 'Fukushima Residents Fight State Plan to Build Roads with Radiation-Tainted Soil'. *The Japan Times Online*, 29 April 2018.

regions (ibid:14-15).¹⁶ The more risky option of migration begins to look less extreme when viewed within this contentious environment.



Although Kazuko has a degree in psychology from UCLA, in Tokyo she had worked variously as a lighting technician for music events to running *aizome* workshops. In Amami

she hoped to pursue more creative work, yet initially she struggled to adjust, wanting to return to Tokyo. She missed friends and family and the anonymity of the city. But when chatting with Satoko they explained that Amami was a good place ‘to grow kids’, because there was ‘nature, there is the ocean in front of the house, and you can get watermelon from your neighbours!’ I-turn residents relocating to the southern islands have access to plentiful fresh, local ingredients throughout the warmer months, whereas in Tokyo this comes at a premium. Soon after I arrived Kazuko shared the locations of several unmanned roadside vegetable stalls (*mujin hanbai jō*) where I could pick up a variety of seasonal goods grown by local farmers for ¥100 a bag (about 70p). In Amami seasonal fruits, vegetables and sea products are cheap, shared, free or gifted making them accessible for residents who

¹⁶ Ministry of the Environment. ‘Recycling Demonstration Project in Iitate Village, Interim Storage Facility Information Site’. Accessed:8.1.2020
<http://josen.env.go.jp/chukanchozou/facility/effort/recycling/iitate.html>.

have dropped their income to necessitate the move. Amamians also have better access to alternative economic networks that expand beyond a conception of economy centred on wage labour. Feminist geographers J.K. Gibson Graham's 'Diverse Economy Iceberg' (2014) diagrammatic method is a helpful way to visualise the objects, materials, skills, and knowledge that can be exchanged, bartered or swapped, and that exist outside of while feeding into capitalist systems, allowing communities to reclaim their local economies. Drawing an 'iceberg' diagram based on my own experiences in Amami was exceptionally helpful for seeing how I was able to get by on a low income over the course of a year, without feeling the need to live excessively frugally (below). Understanding how the island's diverse economies function is essential for local people in Amami if they are to remain content and not move on, or back, to the city. As I was told by an emergency room doctor who had moved from Tokyo, Amami is an island where local people treated children as 'treasure'. He had four children of his own and explained: 'in Amami, there is a strong relationship in the community. When parents are working, neighbours look after the children, therefore it's easier to have a bigger family. People take care of each other; this is a good thing.'

Nevertheless, in communities that are made up of former city dwellers and rural residents who collectively wish to engage in community-making, tensions or frustrations certainly arise, since all members have different expectations of each other. Kazuko and Satoko explained that on a small island you must stay on friendly terms with *all* members of your community, negotiating social harmony. This was particularly important to ensure access to opportunities, the health and safety of their children and to avoid being ostracized or gossiped about. Such daily negotiation was '*taihen*' (hard work), with relationships requiring time and maintenance that Kazuko and Satoko didn't always want to provide. As Kazuko explained:

Living in the city area, there are many people. If we think 'I hate someone' [and we see them] then just run away its fine, but in Amami if we hate someone, we cannot run away ... we have to figure out the 'good point' of them and keep in touch, *we have to*. So, it's a bad point but it's also a good point - it's difficult for us from the mainland, [we are] city girls!



A version of J.K. Gibson-Graham's 'Diverse Economy Iceberg' featuring aspects of an alternative economy functioning in Amami.

Susanne Klien (2020) also writes of the work that goes into conflict avoidance that requires both settlers and established residents to enter compromise if social harmony is to be maintained. For her participants this might mean allowing your I-turn neighbour to sleep in late if they have worked a night shift in a restaurant, even if you want to drop off vegetables and to chat (ibid:181-182). But settlers also needed to give back by showing a willingness to engage in local customs and community-making. Kazuko told me that in those early months, Amami seemed like ‘a foreign country’ – she was a new member of the community so stood out, meaning she couldn’t move around freely without someone recognising her. But the food, plants, mountains were so different, and the monotony of Amami’s seasons added to her homesickness.

Japanese Studies scholar Peter Ackermann says that acknowledging the four seasons is ‘one way of *visualizing* order, harmony, “the way things ought to be”’ (1997:40). Such ‘nature images’, he explains, ‘express in a particularly tangible manner a sequence of changes and transformations, or steps, towards a specific *state*’ that in turn moves one to a metaphysical ‘sphere’ beyond the seasonal cycle (ibid:46). This can be related to cycles of birth and renewal ‘at the base of East Asian thought’ (Daniels 2009:175) but distinct seasonality has also been used to ‘visualize universal principles of cosmic order that should be obeyed in order to avoid calamities’ (ibid). Using this ideology to enforce structure and authority (Ackermann 1997:41) on everyday life may have a stabilising, grounding effect when one’s life is subject to upheaval.¹⁷ Kondo explains that ‘seasons and seasonal rituals locate you in a flow of time and link you to people who are part of your past, present, and future. In Japan, the rhythms of the changing seasons punctuate the rhythms of human life’ (1990:243). Enacting Japanese seasonal activity such as *hanami* (cherry blossom viewing), eating a picnic and foraging for seaweed, maintains continuities with life on the mainland, particularly important for those residents brought up in very different social, cultural and physical environments. But at the same time ‘culturally constructed seasonality’ (Kondo 1990:242), that feels most present in cities, runs the risk of masking local micro processes that might go unnoticed, but are important for demonstrating and maintaining a healthy ecology.

¹⁷ I reference the ‘ordering’ that seasonality inflicts in regard to the individual, but Daniel’s references Ackermann to make a darker point that ‘throughout Japanese history the ruling elite has drawn on these natural representations linked with correct social behaviour in order to establish their authority’ (2009:175).

After several years of living on Amami, establishing a network of friends and securing her job at Kanai Kougei, Kazuko says that she can now see the subtle changes in the flora across the year, the comings and goings of seasonal foods – banana, papaya, *tankan*, *aosa* – that mark the passing of Amamian time. She has become more attuned to her surroundings, to local micro processes, but also seeks information from locals. She asked me one day whether I knew that the *akashōbin* (ruddy kingfisher) [an iconic bird in Amami] only migrates there in the summer? I gave an affirmative, but she said ‘I didn’t know that! Chiraku’s teacher just told me!’



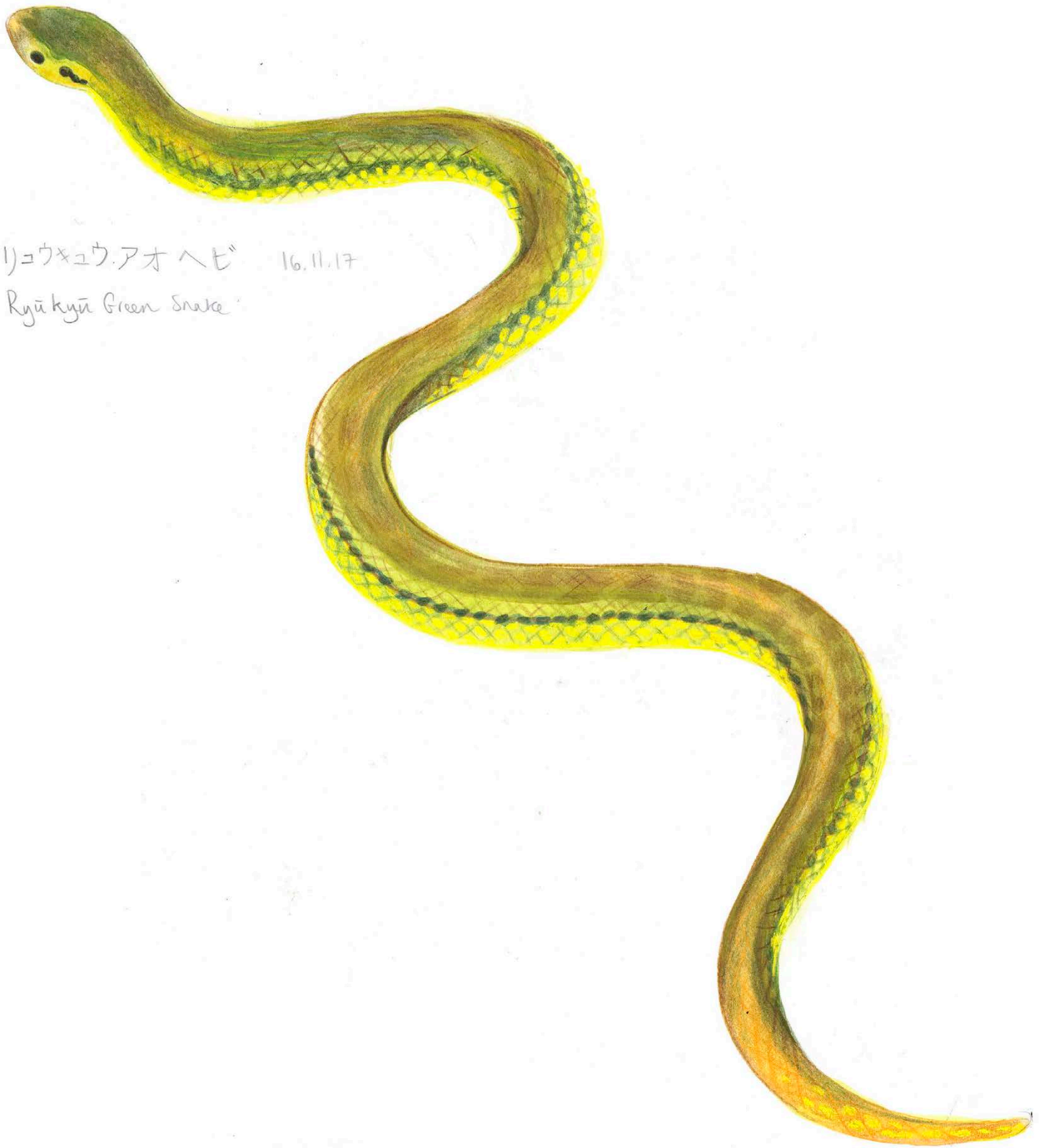
Yukihito-san holds an *akashōbin* that had flown into a window of the Shachō and Eriko-san's house. Photo: Akiyo Shidama.

Living slowly and consuming ethically



Sitting beneath the *sakura* we ate salad, *onigiri* (rice balls), fried *gohan* (rice), sweet tofu and pickles prepared by myself, Akiyo, Kazuko, Satoko and their children, and two of Satoko's friends who were new arrivals to Amami. The children kept wondering off, so between mouthfuls of *kinkan* (kumquat) warnings of 'hebi!' (snake!) were shouted, while 'habu!' was used to threaten Satoko's determined 3-year-old Kaiyou-kun, who wanted to venture off on his own. Snakes at this time of year are particularly dangerous. While in the summer they are mostly nocturnal, in the spring when the weather is warm enough to hunt yet the sun hasn't reached its full strength they wake from hibernation. Donning wellies, we climbed down to the beach along a low cliff where the uneven path overgrown with vegetation alerted us to the real danger of snake warnings.

Holding sieves filled with what looked like a bright green slime, the older children were already collecting *aosa*. Satoko showed Akiyo and I what we were looking for and how to distinguish seaweed from moss, which was lighter in colour and stringier, while *aosa* is soft, flat and silky with a delicious, salty taste of sea water. Between picking *aosa*, the children dug for small crabs or poked at sea anemones, pointing



リョウキュウ.アオヘビ 16.11.17
Ryūkyū Green Snake



them out to anyone who showed an interest. I asked Akiyo whether her mum had picked the *aosa* that we ate tempura-style at the workshop during the week? ‘Oh no,’ she said, ‘she bought it in the shops’. Akiyo’s mum produced the tastiest Amamian cuisine and Akiyo, who was born on the mainland since her father was in the Japanese Army, was slowly acquiring her mum’s cooking skill and knowledge. Although she was schooled in Amami, she had recently ‘U-turned’ back to her hometown after spending several years studying garment pattern cutting in Tokyo and living abroad. Now she was living with her parents in their ancestral home in south Amami, drawn back by the desire to learn Amamian traditional *kusakizome*. I questioned whether *aosa* was specific to the island, but Akiyo said Kazuko used to pick it in Tokyo too. ‘This is so great’ she said, ‘free, fresh food!’. After an hour or so we climbed back to the comfort of the *sakura*, and ate vegan banana bread that Satoko had baked with Kazu-san’s homegrown *shima* bananas. Kazu-san was as adept with agriculture as he was with dyeing, and generous with the plants and animals that he foraged in the mountains.



The sight of a rack of banana's in the back of his *keitora* (mini-truck) was enough to generate a mild hysteria. Later that evening I prepared miso soup with *aosa* using stock from a fish that Eriko-san had bought each member of staff from the fisherman Mitoshi-ni, who had a part-time job running jewellery classes at Kanai Kougei. While I dried the surplus on top of my space heater, Kazuko shared her *aosa* with Nagata-san, who happily took it home to his wife.

As has been discussed in Chapter 2 and across Chapter 3, internal migration is often prompted by the erosion of trust in the state. Whether this has been caused by precarious employment, the retreat of the welfare state, economic stagnation, industrial negligence, environmental pollution, or food security, a sense of uncertainty about one's future prompted my participants to seek resolutions. Anthropologist of Japan Anne Allison claims that in the midst of economic recession, poverty and war, people around the world are dealing with the consequences of 'neoliberal globalism run amok' (2013:5). Allison's book *Precarious Japan* specifically charts precarious employment but also the uncertainty unleashed by 3.11. The publication is unrelenting in its critique of neoliberalism and the failings of the state, which she argues has led to extreme alienation in many of her ethnographic examples. Her perspective offers a bleak picture of contemporary Japan where she equates precarity with a sense of 'pain and unease' (ibid:16) giving little room for what historian Frank Trentmann calls 'the elasticity of everyday life' (2009:69). Trentmann claims that 'quotidian disruptions' caused by disasters but also blackouts or traffic jams, 'offer a snapshot of rhythms as they unravel and are braided back together again, capturing the work needed to keep them going' (ibid). Trentmann states that 'disruptions, in this view, are not freak accidents or aberrations but natural, constitutive features of lived normality' (ibid). They also provide the opportunity to 'open up' the politics of everyday life:

they raise questions about accountability (who is to blame), entitlement and social justice (who should get what) and, most profoundly, about 'normality' (how can or should members of a society live). Disruption therefore is a particularly useful way to explore connections between practices, politics and socio-technical systems (ibid).

3.11 ruptured the everyday causing a national trauma, but living precariously can also open up the politics of solidarity and identity – as has been experienced by

communities across the world throughout the COVID-19 pandemic. While being careful not to dismiss the suffering experienced by many at the hands of such disruptions, they do indeed force Trentmann's question: 'how can or should members of a society live'? Geographer Doreen Massey states that 'place-based struggles' do not necessarily need to be 'place-bound' (1995:184), and this is even more apparent as technology has removed the barrier of distance. I argue that those seeking a slower life and a career in craft might relocate to rural regions but continue to engage with the larger struggles facing Japan, even if they are not based at the epicentre. This pushes back against the idea that rural living is a retreat 'backwards' to a place where 'time goes slow', and counters common misconceptions about the countryside and city that fall into binary oppositions (for Japan see Thompson and Traphagen 2006).

Rather than denying completely the existence of these oppositions between the city and the rural, the modern and the archaic, I follow Elizabeth Shove, Frank Trentmann and Richard Wilk's (2009) position. They describe how society is perceived to have shifted from a slow, 'traditional', pastoral conception of time dictated by seasonal rhythms influencing labour and festivities, to an urban, "modern regime" structured around 'industrial time' (2009:3). This 'speeding up of society' has seen a city-based proletariat squeezed by industrial capitalism, and the enabling of technologies and infrastructure that were supposed to save time, but frequently see one work harder (Shove 2009:26). Instead Shove et al. argue that what occurs in reality is the coexistence of 'multiple temporalities,' varying rhythms and routines that are used by individuals (wherever they reside) as they navigate the everyday. As recent work in anthropology has shown, acknowledging the co-existence of temporalities 'help[s] us think about spatiality in new and interesting ways' (Anand et al. 2018:16; also see Bear 2015). For example, memorialising seasonal time through *hanami* or collecting *aosa* with the spring tides might remind my participants of their hometown, while using smart phones, microwaves and rice cookers to prepare a picnic binds knowledge and friendships in the present.

In the previous chapter, I have also highlighted the meeting and intertwining of such temporalities in the use of shipped-in chemicals to fix natural dyes made from trees that are fifty years old, or in how local (rural) politics might challenge the supposedly advanced political urban elite. I have also suggested that labour conditions might be considered 'backwards' for women working in the countryside, but I would equally

argue that women continue to face similar gendered hierarchies in the city. Wendy Parkins and Geoffrey Craig (2006) who took a sabbatical from academic careers to investigate Italy's Slow Food movement state that slow living is not a desire to go back in time but is 'deriv[ed] from a commitment to occupy time more attentively' (2006:3). Slow living is not about performing acts more slowly, or having more time, it is an engagement with practice, materials and/or people surrounding that action. Time is made for care and to take pleasure in practice – as Elizabeth Shove argues 'practices *make* time' (2009:17).



Miso making attended by workshop staff and their I-turner friends. Left to right: Boiling the beans; blending sea salt with *kōji*; mixing in beans we had mashed with our feet; Kazuko making miso balls.

While my participants would of course buy food from the supermarket and occasionally a cheap and convenient lunch of prepacked *onigiri* (rice balls) and instant coffee from Family Mart, we made frequent trips to the pharmacy in Naze city, the only store in Amami that stocked a small but expensive selection of organic and macrobiotic foodstuffs. In an attempt to sidestep the expense, we made our own organic *umeboshi* (aged, pickled plums) after Satoko's contact shipped the fruits to us from Okayama, salting them with Amamian sea salt. After they were ready, they were eaten across the year, benefitting the gut microbiome and helping to fend off colds.

We made *miso* (fermented soya bean paste) using an ancient recipe read out by Satoko, while knowledge and technique were shared between the other I-turners with experience. The soya beans came from Satoko's sister's organic farm in Kyoto, and were boiled on a makeshift fire using wood from an old *tsumugi* loom gifted by the Shachō. We crushed and mixed the beans with *kōji* rice inoculated with a beneficial mould, before leaving the paste to *nekasu* (sleep) for around six months. Pleasure was taken in these annual culinary practices that took several weeks to buy and source materials for – while the task itself only took a morning, the results could be enjoyed for years to come.



Political theorist Jane Bennett takes this very idea to argue that we might overcome issues faced by modern society by seeking out ‘magical sites already here’ (2001:8). She elaborates that these are not supernatural sites of ritual, but ‘cultural practices that mark “the marvellous erupting amid the

everyday”’ (ibid). These are sites accessed by allowing oneself to be enchanted by nature but also the ‘literary, machinic, and electronic’ (ibid:11). By her understanding, enchantment entails ‘the temporary suspension of chronological time and bodily movement’ creating ‘a momentary immobilizing encounter’ (ibid:5). The experience of enchantment has been critiqued for its association with elitism, i.e. how does the single mother with three jobs and three children find the time and energy to be enchanted? Alternatively, it has been suggested that those who seek enchantment want to ‘forget about injustice, sink into naïveté, and escape from politics’ (ibid:10). But Bennett suggests being enchanted can motivate one to care about everyday practices and encounters within the community, resulting in a recalibration of affluence that ‘rehabilitates’ more ‘ethical behaviour’ (ibid:5). In reality, how far can such enchantment get you? Yukihiro-san’s engagement with colour making discussed in Chapter 2 could certainly be described in Bennett’s terms as an ‘enchantment’, but how does this transpose to more ethical behaviour, or what one might understand as sustaining processes, those small actions that communities carry out to maintain local cultural, social, and environment resources?

So far, I have argued that Kanai Kougei has prioritised what is most important for the community, providing jobs, sharing knowledge, and supporting the local textile economy – what one might define as economic and social sustainability. But *natural* dyeing, or the Japanese equivalent *kusakizome* (plant and tree dyeing), also inspires an image of environmental sustainability. As I argue across the course of this thesis, the reality of natural dyeing is far more complex with its production process causing a friction that might variably be conducive or damaging to local ecologies. Those who commission dyeing with Kanai Kougei take advantage of this ambiguity, since the reality is that it is almost impossible to create a commercial product using natural dyestuffs that is able to turn profit without compromise – as was discussed in the previous chapter. These compromises might bring a product’s authenticity into question (with authenticity being central to the appeal of natural dyeing in the first place), or the ability to dye textiles in a manner that is considered (at least in popular discourse) as environmentally sustainable. Instead, commissioning companies leave consumers to make assumptions based on their own knowledge or trust in a company, ultimately putting environmental responsibility for ethical consumption in the hands of the consumer. So how does one move beyond the *image* of sustainability to enacting something closer to a reality?

Geographers Gibson-Graham et al. (2019) offer a way forward that reframes manufacturing as a ‘matter of care’. They explain that manufacturing has moved from being a ‘matter of fact’ to a ‘matter of concern’, a concern that has evolved from an economic issue – i.e. about the decline of manufacturing in the global north and its subsequent prominence in government policy (ibid:3-7) – to an environmental concern (ibid:3). They examine how in recent years over-consumption and problematic man-made materials resulting from ‘the Great Acceleration’ of the 1950s have transformed and damaged the surface of the planet and its inhabitants – as exemplified by Minamata or Fukushima in Japan, or extreme water pollution in Bangladesh mentioned in the thesis introduction. Borrowing Bruno Latour’s (2014) term of the ‘critical zone’, they state that: ‘manufacturing is a key player in the critical zone where life and nonlife touch and interact to produce the conditions of existence for more and different life’ (Gibson-Graham et al. 2019:8). They suggest that manufacturing might be treated as a ‘matter of care’, referencing Maria Puig de la Bellacasa’s 2017 book *Matters of Care: Speculative Ethics in More Than Human*

Worlds. Puig de la Bellacasa suggests that a ‘more-than-human’ approach to living might account for our interdependence with other species, relationships that require maintenance and care that she examines via permaculture practices. She references Joan Tronto’s (1993) ‘much quoted generic definition of care’ as:

everything that we do to maintain, continue and repair “our world” so that we can live in it as well as possible. That world includes our bodies, our selves, and our environment, all of which we seek to interweave in a complex, life-sustaining web (1993:103).

Puig de la Bellacasa argues that care work activates a sense of ethics and politics since ‘concern’ or ‘worry’ drives one to take responsibility for others. As she explains, ‘a politics of care engages much more than a moral stance; it involves affective, ethical, and hands-on agencies of practical and material consequence’ (2017:4). Relevant to discussions on manufacturing, she highlights that corporate green washing has in recent years called upon companies to visually project ‘how much *they* care’, asking those who consider buying their products to show how much ‘*we* care’ (ibid:9). This raises the questions of where and how care might be enacted during manufacturing? And how might care be approached across different scales? Gibson-Graham et al. state that:

Care involves seeing with our fingers and a kind of acknowledgment that when we care about things—the layout of the manufacturing floor, microbiomes, babies—we touch and are touched by them. Care entails active experimental doings that involve negotiating interdependence and constraint in place, deciding, choosing, privileging and taking responsibility, and enacting an ethos (2019:10)

While this ‘ethos’ is great in theory, with Gibson-Graham et al. providing examples from their fieldsites of large-scale manufacturers who have embraced a caring ethos – for the environment, employees, communities and customers – it doesn’t necessarily address the scale of the problem. This is because ‘sustainability’ is a broad and unwieldy ideology, meaning the ethical impact of a product’s manufacture might not be immediately apparent to makers or consumers. Anthropologist Sarah Wilkes, who works at the intersection of materials, design and sustainability, claims that her ‘participants [designers, suppliers, brands] spoke about the difficulties involved in assessing the sustainability of material in a generic way if you don’t know the specific context of extraction, production, use and disposal’ (2015:213). She also points out

that ideas about what constitutes ‘sustainable’ are not universal, by quoting a mining expert at a conference who explained: “what’s fashionable here in London may be very different in the rest of the world: here, carbon and environmental impact are very high on the agenda” but in India “HIV, keeping staff in jobs, water and political problems” are more immediate concerns’ (ibid:219). Wilkes states that her participants ‘found themselves confronted with extremely difficult trade-offs’ explaining that ‘it is not the case that they don’t care’ but ‘in the dynamic of daily decision-making, they are constrained by finite limits, particularly time and money’ meaning ‘they inevitably have to prioritise some aspects of sustainability over others’ (2015:219). But how do you make the leap towards environmentally sustaining processes when confined by the market who pressure manufacturers to keep costs low, or are limited in your capacity to care by the reach of your knowledge?

Both Elizabeth Shove (2012) and Gibson-Graham et al. (2019) have argued that for too long, the drive towards sustainability has foregrounded the potential of innovation where hopes for the revitalisation of manufacturing systems or infrastructures have been placed in ‘technoscientific solutions’ (ibid:7). Shove however, argues that solutions to social and environmental issues might be sought in the ‘fragments of failed regimes’ (2012:369). As she writes:

Those wanting to develop cycling (or lower carbon diets, or recycling, or organic food, etc.) in different countries and cities should begin by searching not for niches of innovation but for pockets of persistence. They should ask themselves what happened to the remains of past configurations, and how might these be activated and incorporated anew? (ibid:372).

One might argue that revitalising ‘pockets of persistence’ promotes the values of *mottainai*. These values lead to questions of how past materials, practices, objects, knowledge and timescales might be integrated with contemporary life and material worlds, and ‘activated and incorporated anew?’ (ibid). What if, as Shove argues, these supposed artefacts of past regimes never went away? All of my participants were interested in natural materials, ingredients and sustainable processes, and they tried their best to incorporate them into their lives and working practices. I had discussions with Kazuko and Koki about alternative laundry detergents; Kazuko gave me some soap nuts to try, while Koki had discovered a natural chemical to keep his whites

white. Kazuko produced a small line of natural candles (using beeswax sent from Satoko's friend on the mainland), in which she had included powdered pigment that Yukihiro-san had made with waste dye materials. If they had the income, my friends would wear organic cotton and hemp, and if they had the time and resources they would grow, process, and dye with natural indigo. Instead, with Yukihiro-san's permission, all of Kanai Kougei's apparel staff actively engaged in revitalising their wardrobe by over-dyeing tired garments – providing they carried it out in their own time. When on maternity leave, Kazuko asked workmen clearing the bush near her house to save *adan* (pandanus) leaves so that she could weave a hat. This idea was inspired by Koki who had woven *adan zōri* (sandals) in Okinawa, and who had also been weaving fabric for a jacket made from old, shredded cloth overdyed with cloves. This had given the cloth a mauve shade of grey and a beautiful aromatic and antibacterial scent. Akiyo meanwhile, had set about making new garments with recycled kimono fabrics donated by Eriko-san, recutting them into a casual coat and a dress for her friend's wedding. At the centre of these practices were aims to creatively reformulate waste and enact *mottainai*, highlighting that the sharing of materials and things in reuse economies is often driven by social and economic benefits and responsibilities, rather than purely environmental values. These are 'small scale and mundane practices', where materials and objects pass between hands in informal 'diverse economies' (Lane and Watson 2012:1262) existing outside of markets based on monetary exchange.

It might even be suggested that through creative practice my participants treat Amami as a form of commons, whether foraging for materials or using waste to make new things – for example, the burning of the *tsumugi* loom to make miso or the use of cut *adan* leaves to weave a hat. A 'common' good can be described as a resource that is 'owned in common or shared within the community [that satisfies] needs that go unmet by either markets or institutions' (Vivero-Pol et al. 2019:6).

Although I will explore in more detail the history and ideas behind commoning in the final chapter, it is relevant to note here that the



idea of a material commons and a knowledge commons suggests that these are resources governed locally and are ‘socially and environmentally relational’ (ibid:10).

As I have argued elsewhere (Linton 2016), island cultures globally are known for their skills in recycling, repairing, and sharing materials and objects, most likely as a result of their historic isolation and the difficulty of obtaining materials quickly and cheaply. This is particularly apparent in the care and repair of tools and machinery and the creative adaption of alternative parts. Such ingenuity was the case in Amami where the often-extreme weather of wind, humidity and torrential rain saw frequent damage to buildings, and anything made of metal suffering from rust. For example, the workshop’s 30-year-old *dasuki* (spinning machines) had been variously repaired with car body filler or bicycle wheel inners, since the machines are hugely expensive to replace. But one might also argue that these old machines, ‘material things [with] lives’ (Siniawer 2018:170-171), have garnered a respect that recalls *tsukumogami* (tool *kami* or tool gods), since when they broke down the essential role that they played in the workshop would become apparent (see Chapter 4). They were also capable of making themselves heard through their loud whirl as they spun yarns, or their clunking or squealing if they had been incorrectly loaded or were ‘sick’. The dyers enacted a kind of ‘product stewardship’ over the *dasuki*, understood as the responsibilities we have towards a product from its conception, through its use, and up to its disposal, an idea that undermines the concept of singular property ownership. Geographers Lane and Watson explain that, across its biography, an object will pass between multiple individuals with ‘rights and responsibilities’ towards it – by recalibrating conceptions of ownership towards stewardship, an expectation can be located towards care of an object for the wider, ‘public good’ (ibid). The *dasuki* were such key pieces of machinery at Kanai Kougei, meaning workers would take good care when using them, watch over visitors in case they mistreated them, while Kazu-san took almost sole responsibility for their maintenance.

Although rapid communications, online commerce and delivery systems have made island living easier in their ability to slash time and costs in obtaining new materials, making do with what one has at hand (or can borrow from a neighbour) is a mentality that persists in Amami and is passed onto I-turners. For example, the emergency room doctor explained that in Tokyo he feels he has access to anything, he can leave his house, and if he has money, he can buy whatever he wants. But in Amami, he

naturally feels more isolated and with much less access to commodities, and consequently is less likely to engage in the trappings of a materialist lifestyle. This is not to suggest that it is necessary to self-inflict isolation and scarcity in order to prompt sustaining processes, but that island cultures offer insight into the ways in which resourcefulness, innovation and living seasonally resist the drive towards the production and consumption of new commodities. Lane and Watson explain that so far, environmental policy work has focused either on sustainable material economies at the large scale by encouraging manufacturers to reduce waste and pollution or to implement Circular Economies (understood as a close-looped system of waste repurposing (Norris 2017)). Alternatively, they have focused on individual consumer behaviour, but they suggest that what is missing is research at the ‘meso-scale’ where there is a ‘diversity ... of actors, their collective interests in goods and materials, and a shared identity in the form of language, norms and values that is to some extent grounded in a material setting’ (Lane and Watson 2012:1256). Referencing their own research, they highlight that citizens will follow instructions to recycle, for example, because they might care about the environment and it ‘makes them feel good,’ but a more likely reason is because recycling has become ‘a process of collective normalisation ... partly because a household’s participation is visible to their neighbours’ (ibid:1261). Secondly, they use the example of those renting skips, who actively hope that their discarded materials will be scavenged by others and put to new use (ibid:1262). The skip acts like a holding bay of materials where questions of ownership become ambiguous. If skips are imagined as a type of commons, it might be considered more socially expectable to ‘skip-dive’ since collective responsibility for materials stewardship that lies within the item within is recognised. For example, the kimonos that Eriko-san gave to Akiyo to recut had belonged to the Shachō’s mother. Rather than seeing them go to waste or sold to a second-hand kimono dealer for pennies, she took pleasure in seeing new life emerge from the old garments.

Compromise or paralysis?

When I returned to Amami a year after my fieldwork, Koki had finished the first year of his *tsumugi* weaving apprenticeship but had left the program to work in PR for a newly opened, fashionable hotel. He had become dispirited about the kimono cloth, and while he enjoyed weaving, he found *tsumugi* too repetitive, lacking the creativity that he sought in his life. While he always lived on minimal resources, Koki’s

metropolitan mobility and social ease meant that he could take a job in PR despite never having worked in PR before – a privilege that gave him the freedom in his spare time to pursue meaningful work, whatever that meant for him at the time. I asked him whether he had finished the clove-dyed jacket, but he explained that he had lost momentum since he hadn't made enough cloth to cut the jacket and would need to weave some more. He was also asking himself, what was the point? The question arose in conversation as we shared concerns as creative people around how we come to terms with the fact that the world doesn't need more 'stuff'. Is it enough that commodity production contributes to human well-being, to the 'joy of living', to the rehabilitation of enchantment, if the item exceeds practical purpose and ultimately contributes to environmental degradation? All of my participants, those working in or around Kanai Kougei, were aware that current patterns of production and consumption are unsustainable. This was apparent in the discussions we would have about local construction projects and pollution, but it also brought about a disruption to the creative process itself. Koki for example, was both debilitated by doubt and propelled to take action (Pelkmans 2013). He was trying to establish how to treat waste as a resource, or how to make things in such a way that they wouldn't do further harm. Koki told me that recently he had been thinking about raising a garden and making botanical blends that could be used in beauty products. Or perhaps his time would be better spent promoting the traditions of the countryside (as a non-maker) in a way that was tasteful and respectful towards the community? Koki's anxieties are familiar ones in an age of widespread awareness around the interlinked environmental and social crisis – how might he make a positive difference, rather contribute to the problem?

Koki's quandary suggests that individual makers can contribute to discourses around environmental impact since they have the skills, knowledge and ingenuity to problem solve, but also tend to be geographically grounded and ethically entangled. Although makers might be prone to contradictions, the fact that they tend to share skills, materials, resources and opinions means that ethical thinking can be infectious – even if it's based on an element of competition. Carr and Gibson argue that 'the task is to find the conduits and infrastructures that can be cobbled together so that the voices of makers are more audible, and that others listen' (2016:309). If one was to use the comparison of food, advanced capitalist societies have for decades ignored the farmer or the fisherman who have been physically or metaphysically distanced from

consumers. Governments have handed responsibility over to supermarkets or put trust in trade partnerships in order to benefit international relations and provide food security. This has benefited big businesses who have increased their profit share often to the detriment of the producer and the environment. But with slow food systems that have risen with ecological awareness, society has begun to learn how ethical, responsible production is beneficial for nature, soil health and human health with access to fair, nutritious food being a right for all – even those on the margins of society. While this is an ambition still to be realised, it is a step in the right direction. If the textile industry was approached in the same manner as the food system, what might be learnt and how might change be implemented? What if we were to give materials the time to do their job, rather than focus on the ‘tradable features’ (Vivero-Pol 2019:2) of their utility, style or aesthetic. Might we remember what made them popular in the first place? For example, if the antibacterial and strengthening properties of *aizome* or the showerproof quality of *dorozome* were better recognised, dyed garments wouldn’t have to be laundered so frequently and would last longer. By denying society access to these inherent material qualities, society is also denied the opportunity to implement a co-constitutive notion of commodity stewardship.





Having enjoyed a productive day at the beach, we decided that we would return again to collect more *aosa* on the next low tide. But these plans were shelved when news filtered through that an Iranian oil tanker had collided with another ship off Shanghai on its journey to South Korea, and sunk 315km west of Amami in mid-January.¹⁸ The Japan Times reported that an endangered sea turtle had washed up dead on the coast, oil clogging its mouth. When I first arrived in Amami, Kazuko told me that one day whilst swimming a sea turtle resurfaced from the reef and swam with her for a while. Kazuko had learnt to tidal swim at school in Tokyo, and alongside Akiyo and myself we formed a *suiei-bu* (swimming club) to wash off the sweat and *techigi* smell after work during the humid months. After I swam with a turtle for the first time, my desire to repeat the ‘enchantment’ meant that I saw them often, having ascertained the locations where they too foraged for seaweed. This interdependence on ecosystem resources is a factor I pick up on in Chapter 4, as I explore wildlife conservation in Japan and how contemporary Amamians conceptualise nature. By February and into March, cleaners in hazmat suits were spotted on the beach and I was distraught to find a patch of oil when walking there myself. Kazuko warned that we shouldn’t eat local fish, maybe we couldn’t swim, I shouldn’t touch the toxic oil, and we certainly couldn’t collect *aosa* from the beach for a while. It was classic example of *mottainai*.

¹⁸ KYODO. ‘Endangered turtle dies as oil reaches Japan’s coastline after Iranian tanker collision’. *The Japan Times*. 9 February 2018.



Chapter 4: The *Mejiro*: between resource, conservation and companion



Mejiro-san was kept in a cage that hung from the outer wall of the *ai* workshop. The Shachō would bring it from his house in the morning, lifting the cage into place until evening, when it was brought inside overnight because of the threat of snakes. Acid green with a yellow neck, white belly and a white-ringed eye (that provides their Japanese name: *me* (eye), *jiro*, the sound mutation of *shiro* (white)) *mejiro* are small but effervescent songbirds. They are resident throughout the warmer climes of Japan, but Amami is home to four subspecies, likely plentiful because of the annual abundance of fruits, flowers and insects. *Kaki* (persimmon) are a favourite, but I also saw them feeding on *tankan* (tangerine) and *kuchinashi* (Cape Jasmine). I recognised we were in direct competition for the *kuchinashi*'s bright orange innards when four of us were in the gardens of Toguchi picking the fruits one lunchtime. Once dried, *kuchinashi* can be drunk as a health-supporting tea or used to dye a soft apricot colour on textiles. Many of the fruits were peppered with holes from tiny beaks, so on returning to the workshop I balanced one on top of Mejiro-san's cage.



Given their appetite *mejiro* are effective pollinators, fertilising neighbouring flowers as they move through the trees. Their love of nectar from blossoms, particularly camellia and cherry, has made them popular subjects in traditional Japanese arts (Brazil

1991:242). They are sociable birds, feeding in family ‘troops’ (Austin and Kuroda 1953:578), and ‘wander[ing] in parties, often with other species’ (Brazil 1991:242). This was evident when Mejiro-san was visited by wild birds who fluffed up their feathers and interacted through the bars of the cage, uttering *chē churu churu* (or tsee tsee), prompting Mejiro-san to puff up like a ball. Ornithologists Austin and Kuroda explain that ‘in captivity the birds frequently sit on a perch touching each other side by side, a habit seen occasionally in the wild and the source of the Japanese idiom “mejirooshi” (目白押し) or “white-eye huddle”’ (ibid:579). This festive term is used to express shelves brimming with a variety of goods, or a full events program at a *matsuri*. The infiltration of the birds into artistic and linguistic culture alongside their song, said to be ‘sweet, melodious and quite varied’ (ibid), made them popular among those who kept caged birds, a practice that has existed for over seven centuries in Japan (Koyama 2015).



The fact that the Mejiro carries the suffix –san, as opposed to Paru-‘chan’ (left), perhaps reflects the social hierarchy of pets at Kanai Kougei. –san implies more respect towards the Shachō’s pet. –chan suggests a more familiar relationship.



Ukiyo-e print No.34 (Mejiro, kaki) from Nakayama Sûgakudô 1859. Museum of Fine Arts, Boston.



椿に目白と四十雀図 Japanese White-eye and Titmouse on a Camellia Branch, ca. 1840. Metropolitan Museum of Art, New York.

I was never brave enough to ask the Shachō why he kept a wild bird. It seemed a taboo subject and I didn't want to offend him, given that my own feelings have been formed by Anglo-American social norms. But he often spoke of his love of nature, and one reason might be that he enjoyed it as a pet on account of the diligent care he bestowed on it. When I broached the subject at the workshop, I discovered it was already a popular topic of conversation since all my colleagues had a private opinion or story to share. Satoko told me that the Shachō had rescued Mejiro-san after a snake attack, which I communicated to Kazuko, but she denied the story. Confirming with Shachō, she said in fact Shachō had caught it with a net and while he had saved it from a snake, it was because he had left it out one evening and saved it just in time. As Shachō perched a twig on Mejiro-san's cage with a desire to catch another, Eriko-san whispered disapprovingly, 'he's going to get arrested one day'. On another occasion, Shachō was cleaning its cage when Mejiro-san escaped to a nearby bush. Yuske-san (one of the young male dyers) was watching, willing it to fly away, but as the workshop cat Paru-chan moved in, it became apparent that Mejiro-san had lost

the ability to fly. Shachō picked it up and returned it to its small cage, further cementing his unforgiving nickname of ‘Mejiro killer’ coined by a previous worker.

Mejiro-san, as a member of the Kanai Kougei family, provides an entrance point to consider how Amamian nature intersects with the workshop community, but also for thinking how nature is conceptualised generationally. By generationally, I refer to those of the WW2 generation, of their post-war children and their children’s children, since these are the older *tsumugi* dyers and the younger generation who work in apparel at Kanai Kougei, across whom I encountered differing attitudes towards nature. While local attitudes towards the natural world are discussed in the proceeding chapters, this chapter considers how ‘environmental winds’ brought Western environmentalism ‘into being’ in Japan, but also how these ideas in local contexts develop ‘into something quite different from their origins’ (Hathaway 2013:3). Anthropologist Michael Hathaway uses the metaphor of *winds* when analysing his fieldwork with scientists and conservationists based in Yunnan Province, China, where *winds* ‘describe times when political movements brought life-changing consequences’ (ibid:3). Hathaway suggests that ‘despite transnational winds’ often bringing ethical movements into being, ‘most do not question how they got there’ (2013:187).

With this in mind, I use discussions around Mejiro-san to document the early stages of Japanese bird conservation, a history heavily influenced by geopolitics that has been largely forgotten. This chapter focuses on the role that the American Allied forces played in Japanese ecology in the immediate post war period, and the period after when Japan as a nation gained a position of economic strength. My purpose in centring on this history is to show how shifting attitudes to nature as a resource, conservation ideologies and the conceptualisation of nature as a companion are affected by both geopolitical and ‘environmental winds’. Hathaway suggests and my research shows how these winds ‘do not blow in a straight line and often push up against one another, which makes them unpredictable in their force and direction’ (ibid:188). How a society interacts with its environment has a culturally historic character, but it is also formed by the political and economic circumstances that a community are subject to during an era. Japan is a fascinating case study because as a nation who engaged in limited trade with the outside world prior to the 19th century, it developed both a practical and philosophical approach to environmental protection and resource management. This was influenced by religion, cultural values, folk

traditions, individual thinkers and government policy that have at times aligned, and at others clashed. This became apparent when Western ideologies, imported into the country after the Meiji Restoration, fundamentally changed environmental relations at the local and national level often with dire consequences, the inheritance of which was discussed in the previous chapter.

Bird conservation, as a relatively recent phenomenon, offers a cultural framework for how ideas of conservation and sustainability become part of public discourse, and lead to behavioural change. This chapter's aim is to demonstrate how the adoption of environmentalism at a national scale is not always a moral choice but a political, economic or public health one – as is becoming apparent with the global climate emergency. Although a discussion around bird life might seem like a stretch from natural dyeing, I argue that motivations to turn to natural dyeing – whether as a maker or consumer – are intimately linked to discourses around sustainability, nature conservation and a morality that is inherent in practices of consumption. This highlights that the scope of 'sustainability' as an ideology (at least within commodity production) is frequently too narrow in its ambitions. I argue that the long *durée* of bird conservation in Japan might be used to show the complexity and time that it takes for movements to filter through global geographies and take on a locally specific character. Key to this argument is a recognition that as users of natural resources, humans become engaged in a dynamic of use and extraction where control of nature is seen as essential, yet where such control ultimately impacts the environment in ways beyond the bounds of regulation. Conservation has emerged from these dynamics of logistical control (see Chapter 6), seeking to contain, preserve and rebuild habitats and wildlife populations, and has developed into a rights-based framework that conveys a human duty to act reciprocally towards nature in a manner more in line with notions of companionship. The time period immediately after the WW2, of which I refer to often throughout the thesis, is crucial since it marked a moment of widespread modernization and industrialisation in Japan that spread into the countryside with aims to improve standards of living. This time of change is therefore relevant when thinking about how sustaining processes might become normalised throughout craft communities, if stewardship towards other species, things and materials were regained.

Nature as resource: harvesting wildlife



鳥籠を持つ男女（鈴木春信 画） Man and Woman with Bird Cage.
Suzuki Harunobu (1725-1770)

When researching the *mejiro*, I came across *The Birds of Japan* (1953) a book authored by the American ornithologist Oliver L. Austin and Japanese ornithologist Nagahisa Kuroda, a member of a formerly influential samurai clan. Predominantly based on a manuscript prepared by Kuroda, it was rewritten by Austin for an English-speaking audience. The volume is insightful for its scientific content, but also as a record of human/bird interaction around the time of the American Occupation. Mainland Japan reverted to Japanese control in 1952, Amami in 1953, and Okinawa in 1972, but from 1945 the Occupation provided the Allied Forces with unprecedented access to all areas of Japanese life. Social scientists like Douglas Haring – the American anthropologist based in Amami between 1951-2 – were sent to study Japanese society (see Chapter 1), and natural scientists were dispatched to

study Japanese wildlife (see also Chapter 6). The context in which their reports were produced were problematic, but the military detail makes for fascinating reading. As I discussed in Chapter 1, the work of these scholars resulted in policy decisions and economic investment that continue to influence Japanese life in the present. It is unlikely, for example, that the *tsumugi* industry could have recovered in the post-war period without significant American and Japanese investment. Personal testimony from embedded field researchers gives a more nuanced understanding of the political motivations and social dynamics that existed between the Allied Forces and the Japanese, and within their varying factions. This was particularly the case between those with an interest in birds, where the Japanese elite and peasant classes came into contact with high ranking American military officials, scientists and ordinary G.I.s.



Austin and Kuroda, Photo: The Oliver L. Austin Photographic Collection.

Having served in the Pacific region under the US Navy, at the end of the war Oliver Austin was dispatched to Korea and then as a demobbed civilian to Japan where he took the title: ‘Head of the Wildlife Branch’ of the ‘Allied Powers’ Natural Resources Section’. He was asked to record war-induced ecological damage and charged with ‘surveying populations of birds and mammals throughout Japan with a view to assessing their economic value, particularly as a source of food’ (ibid:123). Austin

worked with elite Japanese counterparts who had been fighting for the rights of Japan's wildlife for a number of years, and who had collectively founded the Japanese Ornithological Society in 1912.¹ Ornithology at this time was not an academic discipline in Japan, rather it was a pursuit of highly educated noblemen working under the charge of Prince Taka Tsukasa, the Emperor's cousin. In Austin's words: 'they were the only ones with the funds and time' to research, meet and campaign on behalf of birds (Austin in Kerber 1978:32).

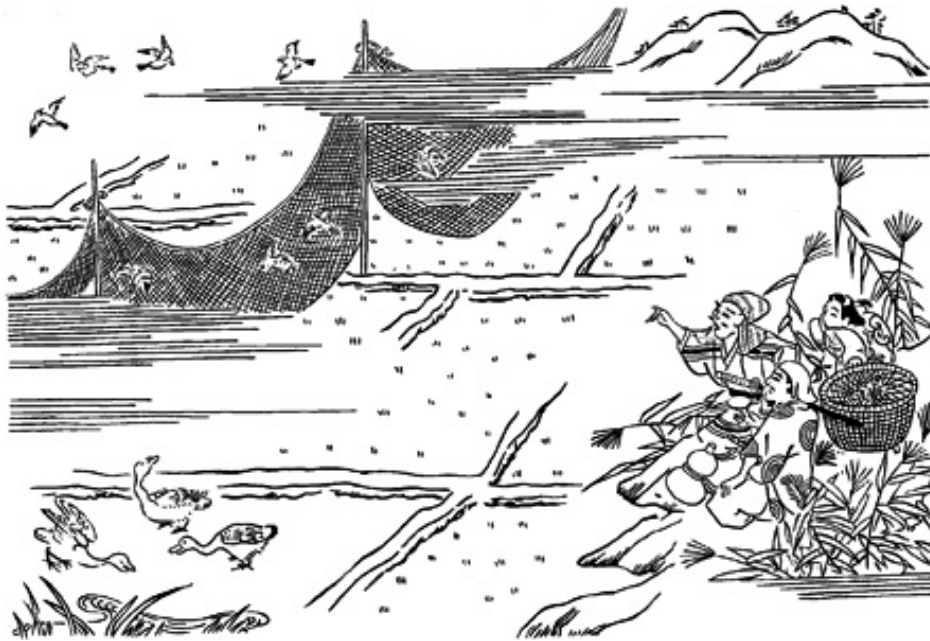


Image: Public domain

Austin and his team surmised through extensive field research that bird populations had been severely depleted nationwide. This was due to habitat destruction, a consequence of the 'war machines' need for timber, and the harvesting of 7.5 million songbirds per year (Tsutsui 2003:302). This huge number had been achieved via mist-netting (*kasumi ami*), a highly efficient practice where a black silk net was hung against a dark background to catch flying birds. Left unharmed but trapped, the birds were harvested for food while their feathers were said to fill the pillows of war veterans (Culver 2017:158).

¹ The Wild Bird Society of Japan was also established in 1934 by Godo Nakanishi, a Buddhist monk and poet responsible for selecting the Prefectural birds of Japan in 1963.

While providing food for a famished population, mist-netting was ultimately deemed by Austin as counterproductive. Small birds are insectivorous and could naturally control pest populations in forests and crops.² Considering long-term sustainability and future food security, Austin argued for widespread reform of Japanese game and hunting laws, and the implementation of strict conservation measures to allow population recovery. He recommended and succeeded in out-lawing mist-netting, passing legislation in the late 1940s with American military force and his aristocratic Japanese connections (ibid:162).

Without further archival research (if records even exist) it is difficult to prove how bird life was affected by the war in Amami, which, compared to many other regions of Japan escaped significant fighting and bombing.³ But drawing on writings from both Austin and Haring one can speculate. Haring states that in some areas ‘deforestation approaches denudation’, which caused flash flooding during typhoon season – ‘the consequence of over-cutting of timber’ (1952:2). Given that a significant area of Amami’s mountains were turned over to agroforestry during the Meiji era, one might assume that forests were heavily felled to assist the war effort (see Chapter 6 for an in-depth discussion). In addition, Amami is a place where wildlife harvesting has endured for generations. During times of famine Amamian’s have relied on the ubiquitous *sotetsu* nuts – the seeds of the plant that features on *Oshima tsumugi* patterns. The nuts require extensive processing to rid them of a dangerous poison, the resulting flesh used to produce a high-starch, flavourless porridge (*okayu*). As a result, periods of famine took the name ‘*sotetsu* hell’ (*sotetsu jigoku*), referencing both the bland taste but also the dangers of eating a potentially deadly porridge (Hayward and Kuwahara 2012:30).

² For example, the *mejiro* was introduced to 1920s Hawaii for insect control, but its success as a forager has made it a threat to native bird populations, categorising it an invasive species.

³ As a minor Japanese Naval port, Naze city was partially bombed and rebuilt.



Rice *okayu* with *nari-miso* made from *sotestu* nuts served at an Amamian *matsuri* with daikon *tsukemono* (pickles)



Photo: Douglas Haring Papers. 'Beach at Naze. Cycad nuts spread to dry in the sun.'

In Haring's field report, he provides 46 main meal menus recorded by a middle-class Naze housewife (ibid:48-53). He notes that there is no mention of *sotetsu* on these menus' – likely because of its (embarrassing) association with poverty (Hayward and Kuwahara 2012:31). Yet Haring acknowledges it did feature in the Amamian diet, with his photographs supporting his notes (above). Aside from fish, listed on the menus are wild pigs and black pork. They also include 'lean meat', with Haring not specifying a source, simply calling them 'tiny bits of several kinds of meat' (ibid:51).



Photo: Douglas Haring Papers. 'Rurikakesu'

Viewing Haring's archival slides, I was surprised to find a pair of caged Lidth's Jays (*rurikakesu*) on a slide sheet with other wild and farmed animals, including an endangered Amami black rabbit wearing a leash. Since the Jay's call is noisy and shrill (*gyā!*), one might assume that these would have been trapped for meat rather than bird-keeping. In contrast to *mejiro*, who Austin and Kuroda state are: 'too small and difficult to net in large quantities to be used as food' (1953:579), Jays are 'considered a game bird in Japan, and shot for food whenever opportunity offers...its habits do not make it easy to net in quantity, and only 50,000 to 75,000 are reported killed each year' (ibid:511).⁴

⁴ This relates to 'Jays' in general since the Lidth's Jay is not listed in *The Birds of Japan*.

Although Haring does not allude to why these birds are caged in his writings, one might assume that mist-netting was still happening in Amami in 1951-2. One can speculate that wild meat too was absent from the housewife's menu, much in the way that *sotetsu* was concealed. Since mist-netting was outlawed from 1947 (Culver 2015:162) admitting the consumption of wild birds to a proxy military official wouldn't have been wise. Haring states that Amamians were generally suspicious about his identity, with many concerned he was secretly working for the Japanese Police (1952:64). Historian Christopher Aldous states that the authorities admitted the difficulty of enforcing the newly written legislation, quoting from a volume of the official history of the Allied Occupation who said: 'As late as December 1950, bunches of song birds were still available for purchase in the public markets of Tokyo' (2015:144).

The caging of the Lidith's Jay (*rurikakesu*) is particularly poignant, since it was in fact protected prior to Austin's intervention. Ornithologist Ken Ishida (2014) explains that the *rurikakesu*, found only on the Amami islands, has undergone two population troughs. In 1921, it was made a 'national natural monument' (*tennen kinenbutsu*) since they were killed in their thousands to provide feathers for the 19 to early 20th century European and North American millinery trade (ibid:5). Since this designation 'protects' a species, numbers began to recover. But it was threatened again in the 1970s and 1980s due to habitat loss and nest predation by the introduced Indian mongoose, which were released in the 1970s in a failed attempt to control *habu*. As a result, the *rurikakesu* was listed as 'Endangered' on the IUCN Red List but was downgraded in 2008 to 'Vulnerable,' since conservation efforts to eradicate the mongoose have been successful (ibid).

After the pillage for the millinery trade, it is unclear whether *rurikakesu* populations would have recovered enough by the 1950s for the bird to re-enter the Amamian diet. But I sent the slide to Akiyo (24), the youngest member of Kanai Kougei, and asked whether she (or her parents) had any knowledge of them being eaten as food? Like me, she read that they were caught for their distinctive feathers, but also wondered if they were kept as pets like Shachō's *mejiro*. Around a week later she came back:

‘Charlotte!

Kazu san and Eriko san said people used to eat ルリカケス [*rurikakesu*] ! ! ! ! !’

I asked too about the Amami black rabbit, today held in high regard given its endangered status, and position as a Natural Monument:⁵

‘Of course people ate them

people eat everything they can eat! Kazu san said’



Austin’s photographs of bird meat shops on the mainland (below) and the catch numbers quoted by William Tsutsui (7.5 million songbirds a year (2003:302)) show that wild birds were not only consumed by local hunters, but a substantial industry existed around their trade. How could it be that knowledge of eating a food embedded in the national diet could be forgotten only two generations later?



Photo: Douglas Haring Papers. Amami black rabbit.

⁵ The rabbit was given Natural monument status in 1921 and upgraded to a Special Natural Monument in 1963, which prohibiting hunting and capture (Yamada and Cervantes 2005:4).



Top photo: 'Bird meat shop, sparrows, quail eggs' · The Oliver L. Austin Photographic Collection

From left to right, the birds for sale labelled as *kamo* (duck); *tsugumi* (thrush); *suzume* (sparrow); Quails eggs, and what appears to be duck or chicken eggs.

Bottom photo: 'Bird meat shop, ducks' · The Oliver L. Austin Photographic Collection.



From left to right: These are more difficult to identify without labels but there appears to be duck and thrush as above, and at least a woodcock, mallard, and a ring-necked duck.

Bird conservation in Japan

In a 1978 interview with Oliver Austin, he describes how Japan's 1947 Constitution was rewritten by the Japanese to erase much of the American influence after 1952. Yet he shows how the internal adoption of external ideas, particularly promoted by elites, can bring about political and public change in opinion:

After the peace treaty was signed – one of the first things that the Japanese did was abrogate the new constitution and throw it out the window ... And my Japanese bird friends, Kuroda and Yamashina, and [Prince] Takatsukasa ... put up a great fight and an advertising and propaganda campaign telling the people how important it was that the small birds be saved, that they not be used for food. That they were important for part of the environment and by George, they put it through! ... And it's the only one

of the occupation-enforced changes that I know of that the Japanese kept with them when they wrote the new constitution (Austin in Kerber 1978:46).

There are several reasons why the government might have decided to keep this ‘occupation-enforced change’ – including Prince Taka Tsukasa being related to the Emperor. Despite the Emperor’s role being downgraded to one that was largely symbolic, he remained influential even after the war. Although the country had regained sovereignty in the 1950s, it remained indebted to the US putting it in a position of political and economic weakness. Ignoring current scientific advice in regard to future food security might have also been reckless during a period of social and political instability. But this was a time of national identity building following a humiliating defeat and dismantlement of a colonial empire. Retaining conservation laws, which by this time most Western nations had in place, can therefore be seen as both an external projection – part of a broader Public Relations campaign to counter the ‘barbaric’ reputation that had been fostered abroad – and internal project to restore the ideals of Japanese identity.

The need to counter Japan’s image on the international stage was revealed by Austin in his introduction to the *Birds of Japan*, who highlights a prejudice that was rife during this time:

The Occupation brought many innovations to Japan, and made many changes in the customs and practices of centuries. The new constitution, the various land, educational, and labor reforms were perhaps among the most important innovations, but nowhere was the contrast between the two ideologies more marked than in the field of wildlife conservation. Here, two radically different concepts of man’s relation to wildlife were brought together, those of the very old world and those of the comparatively new, and two radically different methods of attaining more or less the same ends (1953:284).

While Austin fails to elaborate on his understanding of the ‘two radically different concepts of man’s relation to wildlife’ (1953:284) scholarly work by historians of science William Tsutsui (2003), Christopher Aldous (2015) and Annika Culver (2017) can read between the lines. While Austin aimed to conserve birdlife to sustain populations and improve food security, the moral ‘winds’ of ‘US-inspired modes of conservation’, with their ‘particular language and ideological rhetoric’ that

emphasized ‘American-style democracy and its favorable links to science’ (Culver 2017:160) also nodded towards improving the morality of the occupied society. Conservationist Paul Jepson suggests that ‘in Euro-American bird conservation frames’ there are strong ‘associations between flying birds and freedom’ (2010:325); an attitude that still holds today. This was born out of Victorian sentimentalism, where in the wake of the industrial revolution, wild bird-trapping alongside loss of habitat was having a significant impact on UK populations. As a result of protestations by the likes of poet William Blake, whose 1862 poem ‘Auguries of Innocence’ claimed: ‘A Robin Red breast in a Cage, Puts all Heaven in a Rage’, a change in public opinion ensued (ibid). This led to the introduction of stricter hunting legislation, and the founding of the UK’s Royal Society for the Protection of Birds in 1889, and the Audubon Society of America in 1905 (Samstag 1988). A new awareness of the vulnerability of wild bird populations reconceptualised songbirds in particular as a creature to be enjoyed by bird watchers. This is how they were seen ‘in the American civilian imagination ... and not eaten as food, as they might by ordinary people starving for protein in post-war Japan’ (Culver 2017:157).



Oliver Austin duck hunting, and an election sign in Hokkaido with caged bird. Oliver L. Austin Jr. Photographic Collection.

Aldous and Culver note how members of the US Occupation had a markedly different attitude towards wetland or ‘game’ birds, whose killing has for centuries been designated a sport among rural and aristocratic communities of Europe (and by extension North America). The act of hunting waterfowl with a gun – quick, clean

and humane – by “gentlemen of science” of whom many were aristocrats’ (2017:158) – was contrasted with the ‘old world’ Japanese methods of the ‘bird harvester’s workaday “barbarity” in quickly processing his kill’, which Culver lists as ‘pressing on their sterna, skulls, and back-bones [with the thumbs], or simply sitting on a full sack of them’ (2017:157-158).⁶ Historian Karen Halttunen describes how Enlightenment philosophy led to the creation of ‘sensible man’ in the West who, because of his ‘virtuous nature’ and humanitarianism, designated him ‘civilised bourgeoisie’ (Halttunen 1995:303 in Dugnoille 2015:6). While Austin succeeded in banning mist-nets (used by peasants for songbirds), he tolerated game hunting if newly implemented quotas and laws were obeyed (Aldous 2015:146). But the American military, whom Austin called ‘to-the-victor-belong-the-spoils advocates’, frequently flouted regulations (Austin in Kerber 1978:49). These hunters felt that as the occupying force it was their right to hunt as they pleased, creating tensions that spanned the hierarchy of the military (Aldous 2015:139). One might argue that this attitude was grounded in the Judeo-Christian worldview that suggests man was permitted ‘dominion’ over all other living things, making nature ‘human property’ (Mitsuyo 2017:181) – a ‘property’ currently under the American dominion. Consequently, by adopting Western ideals when using natural resources, Japan would appear to be making itself anew, expelling the ‘barbaric’ slur projected throughout the Allied nations as a result of Japanese war crimes and re-aligning itself with the pacifist tone of the 1947 Constitution that had been penned by the Americans.

Regaining ‘harmony’ with nature

Asian studies scholar Midori Kagawa-Fox (2012) suggests that after the Meiji Restoration a Japanese environmental philosophy developed that combined Japanese religious and cultural values with Western philosophy, which favoured moral ethics and scientific reasoning. This was led by scholars such as Kitarō Nishida (1870-1945) and Tetsurō Watsuji (1889-1960), and was highly regarded for its take on the natural environment and its claim that the Japanese people had always lived in ‘harmony’ with nature. In *Difference and Modernity* (1995), anthropologist John Clammer examines the origins of the ‘harmony’ ideology through Watsuji, who was widely considered a writer of *Nihonjinron* (1995:72). *Nihonjinron* is a popular genre of literature and

⁶ Oelkers (2017) claims that in early 20th century America Italian immigrants were also targeted by conservationists with openly racist rhetoric since they would also use mist nets to catch songbirds to eat.

ideology that anthropologist Roger Goodman describes as ‘theories of Japaneseness’ (1992:11), which rely ‘heavily on primordial sentiments inherent in the presumed “ethnic essence” of the Japanese-blood, purity of race, language, mystique’ (Befu 1992:42). Based on an understanding of East Asian thought where principles shared between Chinese Daoism and Confucianism, Japanese Buddhism and indigenous Japanese Shinto are less anthropocentric (Parkes 2017:2), the ideology ‘presupposes that both nature and man are on the same plane while in Western-style domination, it is man who is at the centre’ (Moon 1997:228).

Watsuji claimed that the Japanese are unique because they are a monsoon people with a strong relationship with nature attributed to the design of the traditional Japanese house – where the boundaries between inside/outside are blurred. In addition, he claimed that wet rice-cultivation relied on harmonious cooperation between species resulting in the concept of ‘groupism’ (Clammer 1995:72). Human interaction through ‘groupism’ therefore becomes ecological, as Clammer explains: ‘there are no “individuals” at least in the sense that individuals do not exist except as a result of and in the context of relationships’ (ibid:63). While Watsuji’s philosophy has been heavily contested as work of essentialism, Clammer deconstructs the ‘harmony’ concept to provide some justification. Referencing Bourdieu, where ‘practical knowledge is seen as fundamental to the structuring and creation of the social field’, he suggests Watsuji’s ability to place the body in space and within a climate, demonstrates how the body experiences nature perceptually, but also through activities (ibid:70). As was described in Chapter 2 and 3, nature becomes part of the *habitus* (ibid:60) being present in ‘social, economic, political, somatic and aesthetic arrangements’ of a community (ibid:64). Despite the prevalence of nature in everyday life, Kagawa-Fox (2012) claims that cultural values, inherit in social and spiritual practices that promoted an environmental ethic, were not carried through by the Japanese government, which instead prioritised economic growth and industrialisation after the Meiji Restoration. This ignored the ethical principles that had managed Japan’s limited resources for centuries, (see Chapter 6) in line with indigenous Shinto cosmology.

Shinto, meaning ‘the way of the *kami*’ (Kagawa-fox 2017), is described by Clammer as ‘a system of spirit beliefs, of nature inhabited by a myriad of beings in which effectively the boundaries between the spiritual and material are dissolved’ (2001:219). *Kami* (gods) ‘may be the spirits of a particular place or natural forces like wind, rivers, and mountains’ (Hardacre 2017:1), animate beings such as birds, foxes and whales, while ‘some Kami originated as the deified spirits of human beings’ (ibid). As spiritual forces *Kami* can be at the same time benevolent and destructive – given their ‘power and energy’ (Hiroko 2017:2) – so any ‘thing’ or element considered *kami* was generally treated with respect and care. This included birds: the *uso* (bullfinch), for example, is a *Kami* by association with the messenger of the Heian Period (794-1185) deity Tenjin-sama, a scholar contemporarily worshipped as a god of learning (see image).⁷ Kagawa-fox states that Shinto, as a system of folk beliefs, ‘accommodated Buddhism’ when it was introduced to Japan from China in the sixth century (2017:11). This acceptance was on account of the reverence that individuals paid to an environment alive with spiritual beings, aligning with the Buddhist idea of the self being just one of many beings existing within ‘an infinitely complex network of interconnections’ (Parkers 2017:5). This led to a uniquely Japanese attitude towards the natural environment that taught values encompassing a wide conception of community, and differed from Western narratives (ibid).



Image: Public domain

Peter Oehlkers (2016), an academic who studies environmental communication, claims that upon Commodore Perry’s landing in 1854, (when the Japanese were forced into trading relations with America), American officers engaged in a cruel slaughtering of Japanese wildfowl with rifles for sport, much to the aghast of their Japanese counterparts.⁸ He suggests that the ‘opening’ of Japan that ignited the Meiji Restoration and industrialisation lead to the introduction of modern firearms, habitat

⁷ The *uso* has become a lucky charm for those sitting exams but is also used to absorb one’s lies, since the ‘*uso*’ means both lie and bullfinch in the Japanese language (Daniels 2003).

⁸ *Nihonjinron* was supported by Western scholars such as Ruth Benedict, whose infamous work *The Chrysanthemum and the Sword* (1946) was written from America, commissioned by the occupying allies and widely considered to be a work of cultural essentialism (Befu 2002).

loss, trade in exotic feathers, and the breakdown of religious principles creating a schism in human/wildlife relations (Oehlkers 2016). This argument appears to align with *Nihonjinron* since it uncritically adopts the ideology that before Western intervention the Japanese lived in harmony with nature.

Japanese Studies historian Susan Hanley, however, shows that the reasons for this schism are more complex. She argues that precisely because the Japanese could not import resources throughout the Tokugawa period (1600-1868), residents had to 'rely only on the plants and animals available in their islands' (1997:53). During this period of prosperity Japan underwent rapid population growth, and with pressure on resources Hanley argues that resource efficiency and frugality was built into the material culture and customs of society – from rich to poor. Although the major protein sources were seafood and soya beans, game meat including 'bear, wild boar, deer, rabbit, badger, monkey, pheasant, duck, dove, and other birds' (ibid:67) were consumed despite the prohibition of the consumption of four-legged animals by Buddhism, or any fear of retribution by *kami* (ibid:65). Domestic livestock were an 'inefficient source of protein' on account of the land and feed required to raise them, but wild game was easily obtained and sold in the major cities (ibid). Hanley states that as the human population increased, wild animal populations came under increasing pressure from lack of land and over hunting (ibid:67). By the time of Commodore Perry's landing in 1854, consumption of wild birds might have decreased, not because harmony had been restored but, as occurred post-WW2, the capacity of the land to provide nourishment had been stretched beyond sustainable means.⁹

Rather than Japan regaining its pre-WW2 'harmony with nature' as the *Nihonjinron* ideology would suggest, recovering bird populations and changing attitudes to wild bird consumption could alternatively be explained through evolving tastes, changing economic fortunes and the expansion of global commodity markets. This expanded the range of resources available to the population taking pressure off indigenous wildlife. While I was surprised that *rurikakesu*, alongside the Amami black rabbit, were eaten within the last century, the fact that both Akiyo and her parents were also surprised indicates a lack of communication of this history across generations. Like the stigma attached to eating *sotetsu*, eating wild birds might have been associated with the

⁹ This of course pushed the country to pursue new territory through colonial expansion.

poverty and rationing of the war years. Much like the desire to wear *Oshima tsumugi* that were purchased with the population's increasing wealth, the nation's diet was also gentrified as the economy boomed (Cwiertka 2005:417). Whereas rice and soya sauce were previously only eaten by the general populace at times of feast, as a consequence of military regimes of nutrition they were latterly adopted as the 'centrepiece' of the Japanese diet (Cwiertka 2005:417). Katarzyna Cwiertka explains that as part of this overhaul, rice was combined with Chinese spicing used to flavour bland or inferior quality food, and the calorific and economic resourcefulness of Western cuisines. After the war, military ideas about health and the economy, alongside foodstuffs distributed by the Allies (American wheat and dairy for example), spread across the country. Cwiertka claims that with conscription in effect across Japan's empire, dietary influence reached the 'remotest corners' (ibid:424). While the Americans brought the 'environmental winds' of wildlife conservation, the successful repopulation of birdlife would not have been possible without the influence of Japanese elites, scientific evidence that pointed to improved food security, symbolic gestures of public atonement, national identity building and changing economic fortunes. These geopolitical influences disrupted the way that birds had become a commodity, allowing for the possibility that they might be revered more as a companion.

I follow Donna Haraway's definition of 'companion species', that being a 'heterogeneous category ... including such organic beings as rice, bees, tulips, and intestinal flora, all of whom make life for humans what it is – and vice versa' (2004:302). Haraway proposes that 'companion species take shape in interaction,' suggesting that they 'more than change each other; they co-constitute each other, at least partly' (ibid:307). Haraway's thesis is important since an acceptance of interdependent relationships between humans and other species or landscape elements have been ceased to be recognised as such by many communities globally leading to neglect, degradation and the exploitation of resources. But like the example of songbirds, recognising the important work that they do for humans brought about a closeness and new meaning to companionship.

Haraway's point that environmental 'winds do not blow in a straight line and often push up against one another' (2013:188) can be recognised in the source of protein that replaced wild birds, and which some Japanese argue 'saved them from a major

famine' (Kalland 1998 n.p). During the war canned whale meat entered the military diet (ibid) and post-war commercial whaling was promoted and supported by the occupying Allies (Morikawa 2009:29). By 1947, whale meat made up over 50% of meat consumption at 76,000 tons (ibid). By 1962, 220,000 tons was entering the market bolstered by the 1954 School Lunch Act that saw whale meat consumed in schools nationwide (ibid). By the 1960s, in line with diet gentrification, whale meat was eventually displaced by pork, chicken and beef despite these being more expensive (ibid:30). International Relations scholar Jun Morikawa (2009) argues that this coincided with increased international environmental activism that became a matter of growing national interest. As a result, whale meat fell from favour, disappearing from the school lunch scheme by the 1980s.

What is of interest for my argument is that in the 1950s, while Japan was still economically dependent on the West, laws to maintain bird conservation remained in the 1947 Constitution. This was despite the fact that wild bird consumption has a history in the Japanese diet, with a substantial industry existing around their trade. Culver claims, for example, that songbirds were historically preserved in bran-filled barrels and served *yakitori* (grilled-bird) style during the New Year celebrations (2015:158). But changes in the law and in public opinion resulted in an almost blanket 'social amnesia' (Jacoby 1977) in regard to their consumption within the last century. This was brought to the fore in 2001 when Tokyo's then governor Shintaro Ishihara suggested the city might solve its war on jungle crows, whose numbers had swelled because of the increase in food waste, by encouraging people to eat crow pie. The international newspapers picked up this quirky comment, ignoring the fact that crows were considered game meat globally until relatively recently.¹⁰ The case study of wild birds stands in stark contrast to the internationally contentious debate around the hunting and consumption of whales. Since the 1970s, from their position of economic strength, the Japanese government have assertively argued that the consumption of whales, dolphins and porpoises are important to national identity and the maintenance of tradition, despite a large majority of the populace showing no interest in eating them.

¹⁰ Struck, Doug. 'Tokyo's Winged Bullies'. *Washington Post*. 12 June 2001.

Morikawa explains that the history of whaling in Japan conflicts with the 'tradition' argument. Although whaling has occurred on a small scale since the Edo Period (1603-1867), commercial whaling only began in the 1890's (Takahashi et al. 1989:110). Yet local communities mostly opposed commercial whaling ventures, aside from in a handful of 'whaling towns' (Morikawa 2009:28). Morikawa quotes the example of Same village in Aomori Prefecture, where whales were venerated as *kamisama* (gods), with the community believing that whales blessed them with their 'important sardine harvest', leading fisherman to clash with the whale station who were polluting the sea with blood and oil (2009:22). 'Large-scale deep-sea commercial whaling' only developed in response to the need for protein before and after WW2 (ibid:23). But in 1982, the International Whaling Committee (a scientific body), implemented a 'zero catch limit' (Kalland 1998 n.p). Whaling in Japan continued and even expanded, however, under the guise of 'scientific research', with the meat finding its way to the Japanese market. Although whale populations have recovered, anthropologist Arne Kalland explains that NGOs such as Greenpeace and the governments of New Zealand, Australia and the UK have switched discourse from conservation to animal rights and welfare, arguing that whales were exceptional creatures 'equivalent to humans' in the marine environment (ibid). As a result, international pressure applied to Japanese whalers has resulted in consumer boycotts and accusations of barbarism (ibid). Consequently, Kalland argues whaling is no longer an ecological issue, instead becoming an intense international dispute about national identity (ibid).

In his ethnography that followed the 'symbolic value of dog meat' in South Korea (2018), anthropologist Julien Dugnoille illustrates how the consumption of contentious species can take on a 'cultural dimension' (Oehlkers 2016) that can be adopted for political purposes. Dugnoille states that although dog consumption is an ancient Korean custom, it was Japan's colonisation between 1910-1945 that saw Koreans consume dog (and cat) meat in significant quantities, since the majority of agricultural produce was being exported to Japan (ibid:225). This cemented the practice, and on Korea's liberation in 1945 dog-meat consumption became 'a matter of pride, culture, and identity' (ibid). When Korea hosted the 1988 Olympic Games, for example, the government's attempts to hide dog-meat restaurants subject to 'the foreigners gaze', had the inverse effect of increasing consumption as Koreans 'proudly defended' it as an aspect of their national identity (ibid).

Similarly, reasons for eating whale meat today are not only about the enjoyment of a delicacy, with Kalland and Moeran claiming that in the post-war ‘vacuum... of national symbols whale meat has provided a particularly powerful image’ that communicates Japanese pride (1992:194). Those who remember eating whale at school might also be affected by nostalgia, but a younger generation have a ‘deepening awareness of global environmental issues’ (2009:121) and express little interest in eating it.¹¹ However, what will likely bring about real change in these eating habits (based on my findings in Chapter 3) are the significant concerns over food safety, since cetaceans harbour potentially dangerous levels of PCBs, dioxins, mercury and heavy metals (ibid:32) that have been released into the seas as industrial pollution. These compounds can be detrimental to human health, particularly fertility – a subject of intense debate in Japan due to the country’s falling birth rate. This further demonstrates that ‘environmental winds’ that arrive with moral purpose will only take hold if they align with local objectives. It therefore follows that interest in marine ecology – admiring dolphins and whales from a distance – will offer a new form of consumption; as is the case in Amami where there exists a growing economy for tourists to engage in whale watching.

Nature between resource and companion

William Kelly (1986), during his fieldwork in Yamagata Prefecture in the late 1970s and early 1980s, documented a critical point of change for agriculturalists in Japan. The Green Revolution brought into conflict traditional farming practices of the war generation with the ‘rationalized’ scientific agriculture that was embraced by their children – if these children had not already migrated to large towns. Kelly explains how members of local Land Improvement councils would meet at the shrine of the village, where his fieldwork was based, that had been constructed for the water spirit (*mizugami*). The *Kami* of this area have influence over ‘hydrology, rice growth, and spiritual energy’, and he was told that ‘the mountain spirit receives the winter snowfall and descends through the rivers in the spring as the water spirit’ (ibid:603). Kelly admits that initially he dismissed this local lore as nostalgia, especially since the area had recently capitalised on the *furusato* tourism boom (see Chapter 1). These traditional ideas were also difficult to align with the extensive land and labour

¹¹ Inge Daniels told me that many of her (mature) participants staunchly defend the practice, as did those who discussed the matter with anthropologist Peter Wynn Kirkby (2010:192).

improvement work that had been implemented in the area roughly between 1965-1980. This work included the ‘rationalization of water use’ that saw ‘enormous state subsidies and technical direction’ to dam rivers, implement straightened concreted irrigation canals, and bulldoze existing paddies into regulated ones that followed a grid system (ibid:207). Beneath the paddies local infrastructure was improved, electricity lines, sewage systems and water supply laid, and new roads constructed to improve access; machinery was introduced to replace handwork, and chemicals to treat monocultural rice varieties. The motivations for these works were twofold: to improve food productivity, but also due to concern from the state ‘that farmers were wasting water that was sorely needed for expanded municipal uses, hydro-electric generation, and industrial plants’ (ibid:607-608).

With this paper, Kelly shows how the push towards rationalization has created both nostalgia for tradition (for the way things were), alongside a nagging feeling that the traditional agricultural skill and knowledge that helped farmers work with the landscape and nature – with the *kami* – is out of reach. Environmental philosopher Toyoda Mitsuyo explains that ‘if people do not feel connected with the land through their everyday experiences [the spontaneous power of nature] might remain merely abstract’ (2017:188). This suggests that by losing the connection with traditional agricultural knowledge, a knowledge that was understood and shared through ‘indigenous narratives’ of *kami* and other spiritual beings (ibid:179), one loses the ability to manage the land in extreme weather events, but also how to profit from nature’s abundance. This loss of knowledge occurred because such narratives were not simply entertainment but carried important practical knowledge about one’s local environment across multiple generations (see also Yoneyama 2012). Essentially, a myriad of spiritual beings helped a community make sense of the world and encouraged respect and care for natural phenomena. But if one loses the connection with the land, does this mean spirituality linked with the power of nature becomes distant or even irrelevant? And if so, is it possible to re-establish those connections?



A lady from the mainland that I encountered several times at the beach, who was travelling around Amami in a van with her caged budgies.

When I arrived at Kanai Kougei I was perplexed as to why someone would cage a wild bird when hundreds of them move busily through the trees in one's yard. It could be that the Shachō caged Mejiro-san along the lines of European collecting, where nature can be understood as a form of property. Yet one might also consider whether Shachō's *mejiro* brings about a closeness with an individual – through a formal notion of pet ownership – but also a connectedness with the species as a whole, since he would be able to recognise characteristics among wild birds that he might not have otherwise noticed. Might Mejiro-san be a companion that links Shachō with nature, creating closeness based on proximity and intimacy that may foster a better understanding of the workings of a shared ecosystem?

While it would be difficult to argue that drastic legislation in regard to bird conservation was not a necessity after WW2 in Japan, applying more nuance to the evidence is helpful for understanding how events unfold. Conservation is, in most cases, top-down and instituted by outside forces. Critics of conservation frequently highlight a lack of understanding of local context and cosmologies, although in recent years critical work has been done to address this problem. Companionship,

meanwhile, could be conceptualised as a grassroots approach to environmental stewardship. But since the law no longer permits the trapping of wild birds as companions, what might companionship outside of pet ownership therefore entail, if nature, in some instances, has reverted from commodity to companion? I suggest that reconfiguring the boundaries of companionship and better understanding how different species ‘co-constitute each other’ might offer a more conducive way forward.



In Amami, although nature literally permeated the walls, there was also an overwhelming sense that vibrant, living nature had become abstracted into material and portable forms of companionship. This was an approach used by conservationists, local authorities, businesses, schools and individuals. The *rurikakesu* (Lidith's Jay), only found on Amami and neighbouring Kakeromajima and Ukejima islands, is the Prefectural bird of Kagoshima registered in 1963, that finds itself symbolically rendered across the island. Together with the Amami black rabbit, both species are Special National Monuments, joining Japan's unique crafts and culture (including textiles) under the Cultural Properties (*Bunkazai*) umbrella. These species symbolise Amamian identity nationally, with the island's official mascot, a black rabbit called *Kokuto* (meaning black sugar, the island's famous sweet export) said to represent 'the symbol of the nature of Amami'.¹² The rabbit has a distinctively *kawaii* (cute) persona, found printed on conservation posters but also local vegetable packaging, tourist information sheets, *omiyage* (souvenirs), Hello Kitty merchandise, and even lending its name to a local car mechanic. These rare species that have become 'remote' in daily life, have been replaced by an excess of material forms. Similarly, Kalland and Moeran describe Japanese whaling towns where 'cute' whales and dolphins, once hunted in significant numbers, adorn fire stations, bridges, manhole covers and *pachinko* pinball parlours (1992:24-30). While whales have become ideological 'totems' for environmentalists, they have also become visual totems of 'self-identification' (ibid:42), as they 'foster a strong community identity – itself seen as an important strategy for survival' (ibid:194).



¹² Minaminihon Shinbun (South Japan Newspaper) 16th June 2004. As quoted in Kuwahara 2011.



Amami Black Rabbit mascots (called *Kokuto* – ‘black sugar’) wearing *Oshima tsumugi*. When not in kimono these characters wear a white bandage indicating an ‘injury’ sustained from a car collision.

One can draw on Durkheim’s theory of Totemism (1915) developed via an understanding of Aboriginal Australian’s ‘system of social organization’ and ‘mode of relating to nature’ (Descola 2013:145) through communities, names, natural objects and geographies to consider this contemporary iteration of animism. Durkheim explains ‘[behind] these figures and Metaphors ... there is a concrete and living reality’ whose ‘primary object is not to give men a representation of the physical world’ but to exist as ‘a system of ideas with which the individuals represent to themselves the society of which they are members’ (2008(1915):284-285). This totemism uses representations of nature and/or spiritual beings to bring about closeness with local geographies, but also fosters relations between members of a community who share ideals. Anthropologist Philippe Descola describes, for example, how Penobscot and Mistassini Cree of North America took as ‘totems’ or ‘guardian spirits’ the animals that they hunted, as he explains: ‘the Cree considered the animal species to be the legitimate proprietors of the hunting territories that they allowed humans to use’, meaning that the species would have lent both their name to the local group that hunted them (beaver, eel, wildcat etc.) and territory to the hunters for

human survival (2013:170-171). This relationship was not ‘arbitrary’, but based on ‘an accepted material relationship of dependence reached between [species] ... that had imprinted the mark of identity on the territory’ (ibid).



One might argue that whales, birds and black rabbits have become ‘economic animals’ (Kanatsu 2013), whose charisma is capitalised to raise funds for conservation or support local communities through the draw of tourism (see Igoe 2010). This method is exploited globally – anthropologist Nayanika Mathur, for example, questioned the symbolic use of ‘tigeraphernalia’ when she visited the Ranthambore tiger sanctuary in India, where images of friendly ‘talking’ tigers are distributed through signs and merchandise.¹³ While Mathur suggests the adoption of the tiger’s image might simply be an instance of commodification, she asks whether ‘these talking big cats are capable of making themselves heard’? Mathur’s research documents widely cited incidents in which residents have been killed by critically endangered big cats, leaving little evidence behind. Filling the void created by this ghostly presence with positive visuals counteracts their negative or threatening reputation. Depicting them as ‘cute’ and communicative instead strikes an emotive and relatable chord that promotes understanding and care, as much as it harnesses the tiger as a source of income.

But like this case in India, one might ask whether symbolic representations of rare wildlife that remain largely absent from daily life in Amami can really promote feelings of closeness to nature and a sense of companionship? Or are these images of nature a form of commodification? Anthropological work that addresses commerce in religious spheres has suggested that mass distribution and consumption of religious forms can still generate meaningful experiences, and similarly the spiritual processes of companionship that adhere within cultural images of endangered species are not necessarily erased by their commercial imperatives.¹⁴

¹³ Mathur, Nayanika. ‘Of Tigeraphernalia and Talking Big Cats’ *CRASSH*. 5 February 2014.

¹⁴ Japan has a rich cultural history of visualising absent natural and supernatural phenomena that are geographically bound and reflect community identity. Today, anime and manga perform a similar role. Anne Allison has claimed that kids and adults seek out a sense of ‘companionship’ (2006:27) with animist ‘fantasy fare’, as demonstrated by Pokémon or the popularity of Studio Ghibli films.



In the Japanese context, Inge Daniels has, for example, argued that ‘material objects which mediate between the spiritual and the material worlds enable[s] people to have a multitude of embodied interactions with deities’ (2003:620). Embodiments of spiritual beings have been illustrated and consumed for centuries in Japan as lucky charms called *engimono*, ‘things that bring about good fortune’ (Daniels 2003:620), but also as ways to ward off uncertainty or promote ethical behaviour by linking the spiritual with domestic life. This means that spirituality can play an essential role in the economy, whether spiritual forms are sold at shrines, consumed through drama, or venerated to bring fertility or prosperity (see *uso manjū* (bullfinch steamed bean buns) above). Daniels explains that ‘*engimono* are not mere embodiments of luck’ but their efficacy is grounded in ‘homophonic association (*goroawase*)’ linked with their physical properties (ibid:624). The power of the frog (*kaeru*) *engimono*, for example, lies in the fact that *kaeru* also means ‘to return’ meaning they are used as charms to ‘help people to “return” to their everyday routines’ after travel, a stay in hospital etc. (ibid). The charms assist people in influencing their luck, but they also necessitate that one takes moral responsibility for one’s actions, as well as bestowing the specific material forms with respect and care.

These ideas and practices have taken on real relevance in light of the Covid-19 pandemic, when a mermaid-like *yōkai* called Amabié was resurrected as a talisman to ward off disease. Amabié was first sighted in 1846 when it was reported to have appeared offshore of Kyushu island, telling a fisherman that six years of abundant harvests would ensue. But Amabié also warned of a coming pandemic, advising in this instance to: ‘Draw me and show me to the people’ (Furukawa and Kansaku 2020:531). A *yōkai* artist shared a drawing of Amabié on Twitter on 30th January 2020 creating ‘a super-spreader event’ that prompted thousands of Japanese citizens and businesses to recreate Amabié’s image in painting, sculpture, on beer bottles, even bowls of noodles. The Japanese Ministry of Health, Labour, and Welfare adopted it too in their public information campaign, as a ‘cultural buy-in for sharing images as an alleged way to

ward off disease’ (Furukawa and Kansaku 2020:533). Although, as Daniels explains, ‘[the] sheer variety of forms and applications of *engimono* makes it difficult to attempt a comprehensive explanation of their independent efficacy’ (2003:624), the repetition of Amabié across a vast quantity and variety of forms has allowed it to fulfil its own narrative by repeating a public health warning through ‘drawing it and sharing it with the people’.

Amabié’s abundance makes visible the invisible presence of the Covid-19 virus encouraging individuals to take responsibility for their own actions and look out for others. As medical doctors Furukawa and Kansaku claim:

At a time when people are feeling isolated and perhaps helpless, the cute 19th-century mercreature provides a comforting, playful, uniquely Japanese means of expression for connecting people with each other and claiming a small sense of protection and control for themselves (2020:533).





Photo: Akiyo Shidama. Both of Akiyo's parents carry bumper stickers on their cars promoting World Natural Heritage. The second bumper sticker, which I saw frequently, was purchased from an Amami wildlife centre. The use of English rather than Japanese language is unusual, since it is unlikely that many residents could read the text.



The community act of making visible revered environmental totems could be said to be occurring in Amami, where Amamians place bumper stickers featuring black rabbits like membership badges onto the rear of their vehicles. This externally identifies them as caring Amamians, while issuing a conservation message that warns others to drive carefully to avoid rabbit casualties on the roads at night. Representing a 'sense of political identification', this excess of symbols of something actively threatened in Amami has continuities with anthropologist Clare Harris' work with Tibetan Buddhists in exile in India (1997:49). Harris shows how an abundance of visual icons, most prominently the untethered Dalai Lama, 'have moved out of the relatively concealed environments of the monastery and home into the streets and across the globe' as a marker of shared identity and defiance (1997:49). These most prominently adorn the service vehicles of Tibetan exiles in India, where Indian deities grace both the interior and exterior of rickshaws and trucks. Drivers instead 'insert their image [of the exiled Dalai Lama] into local symbolic [structures]' (1997:49-50) who, through mere repetition, gains a presence he has been denied in actuality.

But does an abundance of black rabbit or *rurikakesu* forms, even if they have joined a myriad of spiritual beings in connecting a community to nature, result in moral action? Although the impact of these practices on environmental responsibility are ambiguous, individualised and difficult to pin down, there is some local evidence of their efficacy. In 1995 Amamians fought the construction of a golf course that had been granted planning permission in Akiyo's hometown of Sumiyo-son, where the mountains are inhabited by black rabbits. The case gained significant attention in the national and international media because the rabbit was named as a plaintiff in an unusual lawsuit. Both the litigation and plans were dropped when it was argued that the construction was considered a threat to the rabbit's habitat (Kagohashi 2002). The rights of wildlife were argued for by lawyers who wished to raise attention to this form of environmental law in Japan (which originates in America) that treats aspects of nature as legal persons.¹⁵ One of the lawyers in the case, Taka'aki Kagohashi, highlights that Amamian nature and culture are not mutually exclusive, he explains:

A natural ecosystem needing protection and a culture needing protection are not separate entities; rather, they speak of a mutual relationship that has at one end of its spectrum the natural environment and, at the other, human daily life (ibid:15).



Interacting with rabbits or birds, in all their natural/cultural forms, can foster a connectedness with a species. Recognising their characteristics and habits can lead one to understand how our lives converge, even develop relationships of 'interdependence' (Tsing

144:2012) whether economic or otherwise. This is demonstrated by the *mejiro* who feed on the flower nectar, damaging insects and ripe fruit of Amami's fruit groves, spreading seed and pollinating trees that will in turn produce a harvestable food or

¹⁵ See also the example of the area of Te Urewera and the Whanganui River in Aotearoa New Zealand that in 2014 and 2017 respectively gained legal personhood in order for questions of property to be resolved between local Maori and the Crown (Sanders 2018).

dye crop. Citrus, for example, has been cultivated in Amami for centuries since the enduring popularity of sweet and plump *tankan* on the mainland means they are a significant part of the island's agricultural export. They also create sociality across distance as they are shipped to friends, relatives and business associates across the country during the February harvest. Locally, sociality is cultivated through *tankan* exchange or through invitations to harvest one's friends or neighbour's trees. Without the variety of insects and birds that act as pollinators, the benefits of *tankan* would be lost, demonstrating that the *mejiro* really is true to the term *mejirooshi* in its ability to create a sense of abundance. The abundance of visual forms of nature, meanwhile, aligns with Austin's argument when outlawing mist-netting, that songbirds are more valuable to the food chain when they assist humans, rather than being food themselves.



The abundance of cute totems reflects this mutual dependence, they are a 'mark of identity' and function as an educational tool – or reminder – that we share the same ecosystem so should tread lightly. In *Beyond Nature and Culture* (2013) Descola considers how anthropology as a discipline has moved from a distinct position of nature/culture dualism towards increasingly divided subdisciplines. Each of these, he says, seek to understand how different societies interact with their natural environment. Yet he argues instead that:

The multiple and tangled links that every individual is constantly weaving with his or her environment hardly sanction such a cut-and-dried distinction between practical knowledge and symbolic representations – at least not if one allows some credit to the meaning that the members of a collectivity attach to their actions (ibid:83).

This suggests that human/environment relations are both expansive and complex. Descola uses the example of an Amazonian Achuar hunter who sing an '*anant*' to their prey, a magical incantation, before striking. In singing, he asks whether the hunter is 'suddenly switching from rationality to irrationality and from instrumentalised knowledge to fantasy?' (ibid). He insists it is neither, because in that moment the hunter is bringing together skill, knowledge and a past history with

that species, and uses the *anant* to ‘[underline] ties of solidarity between the two parties that are present’ (ibid:84). He then uses this example to suggest that when faced with a species that we want to eat, whether veal or spinach or dolphins or herring we go through the same process of evaluating it as a collection of properties, but also call forth ‘particular types of behaviour and mediation that are appropriate to the nature ascribed to it’ (ibid).

When we interact with another species or with a landscape element our moral values (based on spirituality and/or social norms linked with place) and our personal and community history matter. However, as I have shown across this chapter, all societies, even those considered less secular, also engage in destructive practices to satisfy human need. This is the setting as I move onto Chapter 5 where this paradox presents itself in the form of a veneration of nature in Amami, where local beliefs have historically controlled access to resources, that co-exists with polluting practices. I consider the ways in which Amamian spirituality, that is embedded in a local form of animism, clashes with industrial capitalism in the use and conceptualisation of the Toguchi river where Kanai Kougei is based. As I have shown with the example of birdlife, it might be argued that societies globally no longer consider how our actions have consequences for other humans and non-humans. We have stopped seeing the bigger picture, the web of life, and companionship might offer a route back to a connectedness with nature that helps a community make sense of the world, a role that has historically been performed by animism.



Not being rare or endangered *mejiro* are of 'Least Concern' on the IUCN red list, yet it is still illegal to net and cage wild birds in Japan. In an allegorical twist, the Shachō has not caught another bird since Mejiro-san was eaten by an *akamata* snake. This snake was caught by Kazu-san since Mejiro-san's tiny body trapped in its belly, prevented it from escaping the cage through the bars which it had slithered.



Chapter 5: 'The industrious way of doing things'



After a strong typhoon the *doro* workshop lost its roof, but the *kamidana* was mostly untouched.

I had been at Kanai Kougei for around 6 weeks when Kazuko asked whether I'd like to help her prepare new *ai*. This task was performed at least once a week, especially during busy periods, as the strength of the dye baths weaken through use and across time. We headed to the boiling shed, a newly constructed out-house that the Shachō had built to make way for a fourth drying cupboard. An electric motor was linked to an industrial burner, with a kerosene bottle feeding the fire via a plastic tube. The set up was menacing, and Kazuko was clearly as nervous as me when she started up the motor. The new drying cupboard was needed for the increase of apparel orders, but the boiling area had been relocated outside of the main buildings primarily for safety reasons. Formerly, smoke and dye fumes would routinely dirty the air, and the workshop had experienced fires in the past. Kanai Kougei had installed two small *Kamidana* (god shelves) to protect the company from such misfortunes. One was located at the heart of the *dorozome* workshop above the huge (*kama*) boiling pot and wood-fired furnace used for making *techigi* liquid. A second was found in the office above the computer where Eriko-san and Maiko-san, the workshops administrators,

would write invoices and communicate with clients. Anthropologist Inge Daniels explains that these Shinto shelves are home to ‘protective household deities associated with themes of wealth, plenty and fortune’ but ‘their powers also extend to public spaces’ (2011:86). Kanai Kougei’s *Kamidana* held a model shrine to house ‘territorial spirits’ (ibid), and receptacles of water, *shōchū* (the local sugarcane rum), and *sakaki* leaves that Yukihiro-san left as offerings to the Amamian fire and water *Kami*.¹

In historian Helen Hardacre’s book on the history of Japanese Shinto she says that when erecting buildings, ‘it is “only proper” to begin by asking permission from the *kami*, with prayer, food, drink, gifts, and a place for them to receive these offerings ... without a shrine, a place is “unfit for human habitation,” because proper relations with *Kami* have not been established’ (2017:1). This concept is exemplified by the *Kamidana*’s role in the workshop, as Yukihiro-san explained: ‘we use fire, we use water, we often work with the elements. So if we don’t use them well – fire, for example – it’s dangerous... because it could lead to fires in the workshop’. Although Kanai Kougei’s *Kamidana* is a Shinto device – the Japanese cosmology where spirits inhabit a range of animate and inanimate things from fire and water, to tools and the wind – Yukihiro-san clarified that he is not following Shinto; he follows Amamian religious culture that bears similarities. While in the previous chapters I examined the treatment of nature in Japan more widely, in this chapter and the one that follows I focus on Amami. I argue that contemporary attitudes towards land and resource use on the island continue to be informed by spiritual practices and understandings embedded in Amami’s geography. Through a detailed analysis of the fieldsite, Chapter 5 shows how the remnants of associated traditional practices clash with post-war industrial capitalism through the prism of disposal, resulting in actions that might be detrimental to local ecosystems. Yet, rather than treat the industrial and traditional as binary, I show how modes of production are far more complex. By focusing on water, an element that I argue drives production at Kanai Kougei, one can begin to see how history, ecology, utility, and capital are enmeshed, and why sustaining processes might be difficult to implement.

Firstly, I will take a *macro* view of practices of disposal within textile manufacture through a comparison of water management at Kanai Kougei and another dyeing

¹ *Sakaki* (*Cleyera japonica*) is a sacred tree in Shinto.

workshop in Kyūshū. This will be followed by a *micro* view of four water ‘ecotopes’ across Toguchi village, where Kanai Kougei is based, to define their purpose, properties, history and ecology, explicating how resources are used and disposed of. I will then provide an overview of Amamian spirituality and land and resource use from an historical perspective, before considering how rituals, such as those surrounding the *Kamidana*, continue to be enacted, despite the institutions surrounding them having been dissolved. Finally, in a section I have titled ‘An unacknowledged debt’, I will try to account for the paradox that exists between local environmental discourse and daily practice, where people say one thing, but do another. The section demonstrates how Amamian spirituality and its associated traditions collide with industrial capitalism, despite people’s best intentions. This understanding allows for a theoretical discussion that draws on sociologist Kevin Hetherington’s work (2004) to think through attitudes towards disposal that move beyond my specific case study. In so doing, I pose questions of how notions of responsibility may function more prominently within social life, urging practices of care for the environment.

Practices of disposal

Since Kazuko and I had to wait as the kerosene burner boiled a large pot of water, in the *doro* workshop she demonstrated how to measure out the *ai* chemicals. It reminded me of those I used in the dye-room at art school, yet without the health and safety equipment forced on us by technicians – apron, gloves, mask, and goggles – that were generally ignored outside of teaching hours. In a metal jug we combined 2-parts indigo pigment; 1-part hydro (Sodium hydrosulfite); 2-parts soda ash. Kazuko warned me not to shake or stir too much to avoid the chemicals going airborne. Since indigo is insoluble in water, the blue pigment must be immersed in a bath that includes an alkali solution to raise the pH (soda ash), and a reducing agent (hydro) to remove oxygen to make the indigo molecules available to the textile fibres. When a dyebath is active, its depths are yellow, but when the item being dyed is removed and hits the oxygenated air it turns from yellow to green to blue as the indigo molecules bind to the fibres.



Before the introduction of synthetic indigo, indigo vats were naturally fermented. In the place of hydro, bacteria are put to work to remove oxygen. The bacteria must first be cultured over a number of weeks to promote fermentation, then kept warm and fed a diet of locally available foodstuffs. In Amami, Yukihiro-san's small Japanese indigo vat that he kept for 'special projects' such as his huge *noren* curtains mentioned in the introduction, was made with *sukumo*, an expensive, fermented indigo paste from Shikoku island. Its pH was raised with *techigi* ash; it was wrapped in a quilted silver blanket, and fed with *shōchū* and *miki*, an Amamian fermented sweet potato and rice drink. Since natural vats are literally alive, this method takes time and care demanding vigilance equivalent to keeping a pet. Natural indigo vats are the ideal; they are what people imagine *aizome* consists of. But as discussed in Chapter 2, in an industrial setting chemical baths using synthetic German pigment (photo above) or *Indo ai* (Indian indigo) with hydros are the compromise to this ideal, as they are much cheaper, quicker and stronger in colour than natural vats.

Taking our chemical mixture outside, we emptied it into a large bucket to add the heated water. Kazuko became distracted by some designer friends she was hosting from Tokyo, and I wandered off as I often did to see if there were any creatures in the *hatake* (allotments). I returned to find her pouring water into the bucket, the

contents hissing and bubbling. She said she saw smoke rising as the bottom of the plastic bucket burned. In this state, the chemicals are so corrosive that Takahito-san once did the same and burned a hole through the bottom. As a result, it is a job that everyone accepts with a grimace. The stark realities of dyeing with indigo surprised me in Amami. I was aware that Kanai Kougei were using chemical agents prior to my arrival, but visitors were generally unaware of the realities, thinking their gloves served as protection only from blue hands – although if they asked they were told the truth. From my perspective the ‘authenticity’ of the process wasn’t under question, since synthetic indigo compounds have been used in Japan and globally for decades (see Chapter 2). Yet the question of how the spent indigo was disposed of concerned me, as I watched it being poured directly into the drains on a weekly basis.

This is a prime concern of sustainability experts, who highlight that both synthetic and natural textile dyeing use and pollute huge quantities of water. Typically, large volumes are required to prepare dye baths so that the textile can move freely and a flat colour achieved. Natural dyeing is slow and the process often needs repeating to establish layers of colour, with washing in between. With synthetic dyes a deep colour can be reached relatively quickly especially with heat, but the textile must be thoroughly washed to make laundering and wear unproblematic. Textile scientist Rita Kant suggests that ‘80% of the dyestuffs stay on the fabric, while the rest go down the drain’ (2012:22). This means that the textile industry is one of the largest polluters of clean water globally, responsible for 20% of damage – only second to agriculture (ibid:21-23). The safe disposal of industrial wastewater is therefore essential, but in many countries strict environmental and health and safety regulations are not enforced (see Introduction). Rivers can become polluted with chemicals and heavy salts and metals required to fix dyes, while the water’s colour can become so deep that algae can take hold, draining oxygen and killing other organisms. This spells ecological disaster for waterway-users whether human, plant or animal.

Being aware of these issues, my eyes and ears gently inquired into water usage at the workshop. Firstly, I ascertained that the amount of water that Kanai Kougei used, in the context of Amami, was relatively sustainable. Having a subtropical marine climate, Amami experiences high pressure systems that bring dry and humid heat and an annual average temperature of 21.6°C. But the Kuroshio [sea] Current, frequent typhoons and long rainy season produce 2,837.7mm of rain per year – comparable to

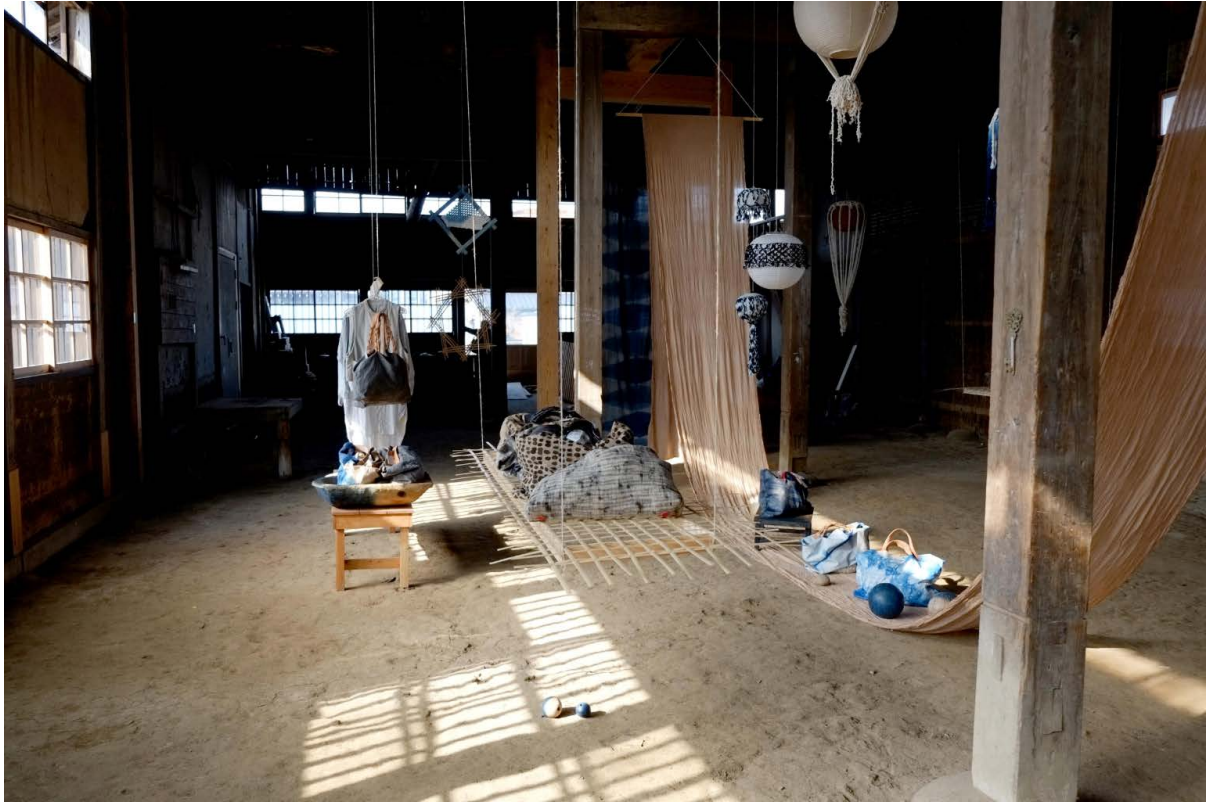
Indonesia or Bangladesh.² This means that Amami is a ‘globally rare place where rainforests are found in the subtropical zone’ (Government of Japan 2017:37-38). Despite being an island ‘with relatively small water catchment areas...frequent rainfalls allow it to have mountain stream zones with a difference in water level as much as that in tropical regions’ (ibid). This abundance of water supports biodiversity, but being so plentiful also makes textile dyeing an economically and environmentally sustainable process. Yet the disposal of wastewater was far more complex, requiring further analysis on both a social and infrastructural basis. The analysis that I consequently carried out was prompted by a comparative visit to Takarajima Senkou, a natural dyeing studio on the mainland island of Kyūshū, north of Amami.

The towns of Kurume and Chikugo are located on fertile plains veined by rivers, tributaries and man-made dikes in northern Kyūshū. The area’s susceptibility to flooding and access to fresh water means its rich soils are ideal for agriculture, producing some of Japan’s best strawberries, soya beans and gerbera flowers. The presence of so much water also explains its growth as a centre for weaving and dyeing. The area is famous for *Kurume gasuri*, an indigo-dyed ikat cloth whose weaving technique was borrowed by *Oshima tsumugi* (see Chapter 1).³ Today, much of the industry has been dissolved but its proximity to the city of Fukuoka, cheap housing, scenic beauty and textile heritage means the areas has attracted a number of U-turn and I-turn residents. Takarajima Senkou, based in Chikugo, are a studio who were also present at MONO JAPAN; the Dutch tradeshow of Japanese craft where I first encountered Kanai Kougei and KITTA, the Okinawa-based studio who I cite in Chapter 2. The owner, Ogomori-san, a friend of Yukihiro-san, U-turned back to the area in 2001, building her studio on farmland next to her parent’s house (Ota 2018:10).⁴ Prior to my fieldwork I had made the acquaintance of Dr. Yasuhiro Ota, a business professor from Tokuyama University who had been studying the business model of Takarajima Senkou, gaging its economic and environmental sustainability. Dr Ota organised a tour of the area to introduce me to the business structure of the *Kurume gasuri* industry.

² Japan Meteorological Agency data (1981-2010).

³ *Kurume gasuri* was used for workwear called *monpe*, a style of women’s (and later men’s) pants made popular during WWII, when women were encouraged to break from kimono to assist the war effort (Horikiri 2016:129).

⁴ The discussion with Ogomori-san was kindly translated by Dr. Ota.



Takarajima senkou products on display at a local exhibition space during my visit

Ogomori-san produces and dyes her own-line garments, but also offers natural dye services, like Kanai Kougei, to brands throughout Japan. Employing both local residents and I-turners, she vocally supports young mothers by offering flexible working hours and promoting an environment where they can advance their skills. Visiting the studio, I noticed that Ogomori-san had developed a complex wastewater system by installing sedimentation tanks in her yard. Since I hadn't seen such a set-up in Amami I was keen to enquire how this operated. When establishing her studio she told me that she approached 'obtaining and using water as a set', recognising her responsibility to share clarity about dyeing's environmental impact with clients. She researched whether to use ground or tap water and its disposal by observing the set-up at other dyeing studios, and following standards set by the local government in Okimachi. Her low volume usage meant that legally she is not required to implement a wastewater system, rather she was inspired by her own sense of environmental responsibility (Ota 2018:15). For clearness of colour but also cost, Ogomori-san chose to work with natural dyes whose colour would not be affected by the iron-rich groundwater that she chose over chlorinated tap water. Since she uses around eight tonnes of water per month, groundwater was 'free' and only relied on energy from an

electric pump.⁵ To deal with wastewater, she installed a 23-ton capacity tank system that took care of impurities and water pH. As she explained, the dyestuffs that settle to the bottom of the tanks over a period of around three days are filtered from the water, pumped out and treated by an industrial wastewater facility. The cleaner water re-enters the sewage system. Like Kanai Kougei, for economic efficiency she too uses soda ash and hydros for dyeing with *Indo ai*, that help her obtain dark shades of indigo. Yet she explained that a pH of 9 will kill fish, and it is therefore essential to lower the pH of the very alkaline waters (around pH 10-11.5) before they re-enter the water system either by diluting them, or allowing the pH to lower naturally over time. The water also becomes re-oxygenated as it settles in the tanks and the hydrosulphates lose their power.

Ogomori-san lamented that local dyers needed to take more responsibility for their water disposal since the studios she visited were either doing nothing (i.e. letting the wastewater re-enter the rivers), or the tank systems they had installed were too small to have any purpose – the dyestuffs not given sufficient time to settle before draining. She explained that many local dyers claimed this wasn't a problem, since they used *sukumo ai* that has a low environmental impact. Yet she suggested that a dye house could not break even if they used *sukumo* alone, since it is more time intensive and expensive a material than the boxes of 'indigo pure' she had seen lying empty around the dye studios who claimed to use only *sukumo*.⁶

The attitude of Kurume dyers reflects a broader problem of environmental negligence in Japan, as was discussed in detail in Chapter 3. The acceleration of industrialisation during the Meiji era and again during the rebuilding of the economy after WW2 saw a general disregard for the environment by government and industry that has filtered down to the furthest corners of the country. This is a pattern of industrialisation that has been followed in much of the developed world, and is a compromise described in the current era by anthropologist Anna Lora-Wainwright in her study of everyday experiences of pollution in industrialised rural China (2017). Lora-Wainwright describes how China's 'development strategy' affects:

⁵ Ogomori-san states that if a dye studio uses tap water, their bill will be around 100,000JPY per month (about 730GBP), so most studios use groundwater.

⁶ Ogomori-san told me that *sukumo*'s pigment concentration is around 10% while *indo ai* is a more efficient 80%.

Residents of formerly poor, but rapidly developing and industrialising, areas [who] suffer disproportionately from weak pollution regulation. There, local governments face hard trade-offs between long-term sustainability and short term needs to provide employment and support public services. In this context, environmental regulations are largely overlooked because polluting firms provide employment and pay taxes (2017:4).

While Japan began to clean up its act in the 1970s, introducing a range of laws and regulations to curb environmental damage, at the time of writing nine years after 3.11, the nuclear disaster at Fukushima still features prominently in international newspapers. This implies that the country has re-established its poor environmental reputation, underscored, for example, by deeply unpopular whaling practices (see Chapter 4). While I have discussed this environmental reputation at the national and international level, what is often absent from the newspaper headlines are experiences of ‘the daily grind’, a focus that makes Lora-Wainwright’s study of pollution in China so compelling (2017:6). Lora-Wainwright states that press and academic literature has tended to focus on places where environmental pollution has produced ‘clear health effects’ (ibid), be it ‘cancer villages’ or toxic air pollution. But by examining pollution from the ground up she reveals the ‘slow process through which environmental plight may become embedded and normalized’ (ibid:9). Lora-Wainwright’s case study is of a different extreme to my own, since her fieldwork participants were slowly being poisoned by lead contamination of local water sources as a result of commercial mining. Yet her focus on the mundane, ‘daily grind’ is where my project aligns, since much of the pollution observed in Amami goes under the radar, being a localised issue.



Top: Takarejima Senkou studio; Bottom: wastewater tanks with farmland beyond.

When I returned to Amami from Kyūshū, I started asking questions. Kazuko had not considered water disposal before, so I explained the system I saw at Takarejima Senkou. Yukihiro-san was interested and asked how their system functioned. I suggested he ask Ogomori-san for advice, but Kazuko later told me that Ogomori-san was not open with her knowledge. This reluctance was perhaps because of the work that Yukihiro-san had inadvertently poached from her studio in the past.⁷ It was not until May that I was able to ask him directly, but between that time and my Kyūshū trip in March, a new system had been implemented where employees were told to dilute used indigo before disposal, to lessen its impact. Although I had assumed that waste water went to a sewage works, Yukihiro-san had told me that drainage was an area where Kanai Kougei were 'not adequate with [their] work' as the drains flowed directly out to the river without passing through a septic tank. When talking with Kazuko, Yukihiro-san had told her that he had suggested installing tanks but the Shachō had refused saying 'it was not the Amamian way'. As Yukihiro-san explained:

I think what is needed is that the water must be poured into the drainage only once it is oxidized and became neutralized. Apart from that, some parts use solvent – that needs to be filtered ... separated, and the latter needs to be scrapped. We would need the tool for filtering, the space to operate it and so on. We should set it up. But the Shachō and the *tsumugi* industry lean towards the industrious way of doing things. I do somewhat understand that they do not want to add any more cost. The *tsumugi* industry's wages won't change, right? So, they cannot make the move to invest in setting up such a system. I understand that they operated without it so far but...

...With the case of *techigi*, there shouldn't be any problem because we simply use what we take from the trees – it only colours the water. But with the case of *ai*, I know what is actually being used – we would need to take care of that.

At Kanai Kougei, it is not the pursuit of capital that accounts for decision making, since wages and company turnover is low. There are also huge differences between a small textile dyeing company who release minor quantities of industrial water into the river and the Chisso chemical factory, as detailed in Chapter 3, who caused an industrial disaster in Minamata Bay. Yet as I have discussed so far, economic gains have historically come at a cost to the environment in most developed countries that have undergone industrialisation. One can speculate that this would have been the case during the *tsumugi* boom when, between the 1960s-1980s, the popularity of the

⁷ These are the over-dyed kantha quilts discussed in Chapter 2.



kimono silk accelerated production, bringing wealth to the island. Current attitudes and practices are possibly hangovers from that period when new chemicals and materials replaced older, lower impact methods but without infrastructural updates to account for the risk of pollution. So while Ogomori-san was able to build her studio in line with current environmental debates and local government regulations, Yukihiro-san explained that the Shachō simply follows ‘the Amamian way’, with a reluctance to implement change constrained by economics. Being clean, after all, is expensive. It is likely that the running of the workshop and employment of craftspeople was prioritised above the unknown environmental consequences of their practices of disposal. The sensitivity of the subject meant that I could not push my questioning further. As Mathijs Pelkmans reasons ‘ethnographic data ... is unavoidably incomplete, limited in scope and influenced by the situated positioning of the researcher and the application of specific research techniques’ (2013:10). Yet rather than ‘cover[ing] up these gaps [in knowledge]... most anthropologists would argue that deeper understanding is served by explicating them’ (ibid).

Water sources of Kanai Kougei and Toguchi village



Image: Google maps

To understand what ‘the Amamian way’ entails, I will explicate the basic hydrology of Toguchi village in *micro* view so that disposal is seen within the broader water system. The structure of Toguchi village follows the pattern of many of Amami’s villages: the mountains and forest are to the rear, the village in the centre, with the beach at the front. But Toguchi is slightly different since the main road follows the Toguchi river, that draws one to the mouth at an inlet on the coast. Embedded in a valley, the village is surrounded by mountains (which gives the village its own microclimate), and aside from the river mouth, the village has boundaries edged by cliffs with beaches at their

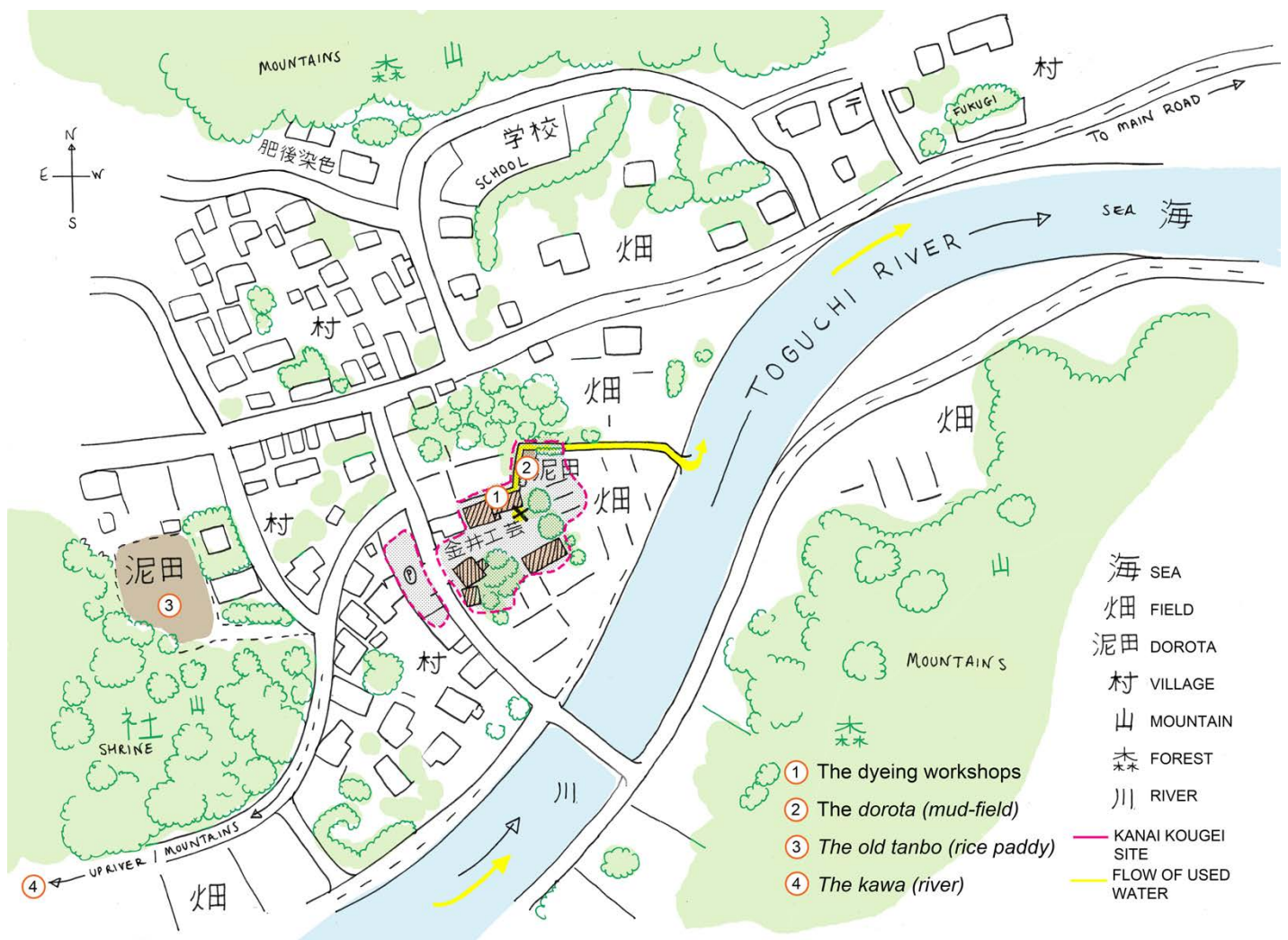
feet. The importance of fresh water sources for Kanai Kougei should not be underestimated, and their centrality to the functioning of the workshop were revealed in the aftermath of a strong typhoon that caused significant damage to the village. Yukihiro-san explained that typhoons are part of Amami, so they have to follow 'nature's course'. But conversely, he stressed that:

There is lots of stuff [the island] enables us to do ... we can get materials ... we have easy access to water ... So – in a good sense – I think it can't be helped because that's just the way Amami is. It's no good saying 'the typhoon is coming' because it's not like we can do anything about that. And we can't change our location; if we did than we couldn't get any water.

In the section that follows I highlight four sites (see map overleaf) where I suggest water is a central binding force that enmeshes history, ecology, utility and capital. These are: (1) the dyeing workshops; (2) the *dorota* (mud-field); (3) the old *tanbo* (rice paddy); and (4) the *kawa* (river). These are all essential water sources that allow Kanai Kougei to function as a 'traditional' dyeing company.

To describe these sites, I borrow the term 'ecotope' from ecology, defined as 'the smallest spatial object or component of a geographical landscape' (Troll 1950), i.e. a pond, tree, copse etc. that gather to create different but related ecosystem patches (Klink et al.2002:7). While ecotopes are bound by their physical characteristics (geology, hydrology, soil chemistry etc.) and/or biota (plant and animal life of a region), 'the flows of energy and material that sustain them' are also studied (Johnson and Davison-Hunt 2011:269). This means that boundaries can be blurred, as in my example water flows laterally and vertically. Taking this focused, geographic approach, I follow landscape ethnoecologists such as Johnson and Hunn, who explain how the discipline 'ties pragmatic knowledge of how to make a living on the land to self-definition, cosmology, meaning, and morality ... Landscape ethnoecology ... is the sum of what one needs to know to live in a place' (2010:279). Johnson and Hunn have expanded the definition of ecotope to incorporate '*folk or cultural ecotopes*', areas that may include 'human technologies, cosmologies and living systems' (2010:3). They suggest that 'it is not useful to create a category binary contrast between "natural" and "anthropogenic" landscapes because in fact this varies between cultures' (ibid).

These terms are helpful since they demonstrate instances where nature and culture converge, identifying areas that I suggest are at the frontline of the ‘nature as commodity, nature as companion’ debate (Chapter 3). They are evidence of a connectedness with the environment and sites of mediation between human needs and desires and those of other beings or landscape elements. Areas considered the domain of humans are in fact inhabited by a range of species, demonstrating why ecologies of production demand closer inspection. Yet I borrow these terms from the specialised discipline of landscape ethnoecology lightly, without being bound by classification or scientific language. My aim instead is to use them heuristically to highlight the importance of each site, because to the unobservant, they may appear to be nothing out of the ordinary.





The dyeing workshops (no.1 on map) are divided into two across a long, rectangular outbuilding on Kanai family land. The first, which sits behind the workshop's office and shell carving area is mainly used for *dorozome*, but also *kusakizome* (plant and tree dyeing); *akane* (madder), *fukugi* (common garcinia) and so on.⁸ The second is used exclusively for *aizome* since the dye is more potent and has a tendency to contaminate other textiles (see workshop plan Appendix 3).

In the position of an old well, an electric pump draws clean spring-water from ten metres below ground (marked with a cross on the above map, between 1 & 2), which feeds taps inside the workshop buildings. This water is said to be pure and stable with low iron and calcium content that does not affect the preparation or use of the *techigi* liquid; if the ground water contained iron it would spoil the dyestuffs. The stability of this water source is therefore paramount to achieve consistency in colour. This was highlighted when Kanai Kougei came to the UK to carry out workshops organised by myself in Oxford and London. The colour of the textiles changed significantly between sites – the heavy metals from London pipes, the calcium and magnesium that make the water 'hard', and sterilizing chlorine produced dye results that were brighter

⁸ Kanai Kougei run shell carving classes where tourists make jewellery using local conch shells. These are Green Turban sea snails (*yakōgai*) that are reef-harvested for food, while their shells are shipped to China to make pearlescent garment buttons.

and redder in some locations over others. Access to this pristine water source in Toguchi therefore renders the site unique.⁹ Ground water fills the water butts in the *doro* workshop and a clever three-tank water system in the *ai* workshop (see below). The first tank fills up before it overfills into the second, then to the third, with the overflow entering the drains. The first is used for washing undyed textiles, the second for *dorozome*, the third for *ai*. The last tank routinely turns bright blue. Being the ‘dirtiest’, since the water has now been used three times, it is the one that flows directly to the river.



⁹ Yukihiro-san told me that Amami possesses very ancient strains of bacteria. This might account for the *techigi*'s strong smell and assist in preserving the dyestuff for long periods.



At the end of the working day after the waste waters have drained, a plastic pipe is connected to the third tank that routes clean water to the second water site, Kanai Kougei's *dorota*, with the supply maintaining the *dorota* pools' water levels and preventing stagnation. If during the working day someone forgets to disconnect the pipe, the *dorota* will turn blue and the workers will have to deal with the wrath of Kazusan – since the contaminating *ai* can affect the shade of *tsumugi* yarns. In the *doro* workshop waste-dye and water are poured directly onto the

sloped floor – wellington boots and heavy rubber aprons are a necessity. This adds to the sensation that *dorozome* is a highly aquatic profession. Wastewater from both workshops congregates in concrete drains that flow to the Toguchi river, then out to the sea. These damp 'ecotopic' environments are frequented by amphibians who enter via the windows, drains, or doors. The eggs of frogs and newts were often found here. Presumably they are safe havens from the *dorota*'s predators such as the *yago* (dragonfly nymph), which must hunt ferociously to propel their growth into dragonflies.





The *dorota* (no.2 on map) is a unique space where *dorozome* mordanting takes place. The image above shows the Shachō pounding mud into the fibres, so that the iron (ferric oxide) links chemically to the tannins in the brown *techigi* dyed textiles. This fixes the colour and darkens the shade. Amami's soil chemistry is rich in iron and other trace minerals - evident by the mud that glows orange at the site of landslides. By allowing water to sit on top of the very fine silted mud, oxidation is prevented making the iron available to the tannin. The Shachō unsettles the bottom of the pool with a stirring motion using the flat of his foot. This thickens the water to distribute mud across the textile.

Before they were used for dyeing, *dorotas* were *tanbo* (rice paddies). Amami's geography is not necessarily suitable for wet rice cultivation, yet during feudal times Amamians used their ingenuity to produce rice to fulfil forced tax payment (see Chapter 6). Kazu-san explained that all over Toguchi, and into the valley that stretches throughout Tatsugo-cho, the mud is two metres deep, while spring-water also makes the area suitable for cultivating rice (Morimoto 2003:96). This makes the area prime land in comparison to the rest of Amami – the soils are typically shallow on the island's steep slopes, resulting in much of the available land being unsuitable for agriculture (USCAR 1952:50).



Photo: Douglas Haring Papers. 'Dyed *tsumugi* yarn being rinsed in mud to set dye'.

I was told by an Amamian forest ranger that the traditional agrarian landscapes of Japan called *satoyama* (mountain village) and its sister *satoumi* (sea village) are not present here, since Amami does not have *tanbo*. This is not quite true, since there are still some in the north of the island, while *dorotas* provide similar aquatic environments for a range of species. In *satoyama*, the micro-management of native woodlands (for firewood and foraged resources) alongside wet environments of *tanbo* and the dry environment of *hatake* (allotments), support a wide variety of wild and domestic flora and fauna that 'co-constitute' each other (Haraway 2004:307). This creates 'harmonious' relationships that are mutually beneficial for humans and nature. With urban migration and increased imports, *satoyama* and *satoumi* ecologies broke down, as landscapes lay unmanaged and forests undisturbed. In addition, post-WW2 many native trees were replaced by monoculture forestry, decreasing biodiversity (see Chapter 6). In recent times, the Japanese government has invested heavily in the restoration of *satoyama* and *satoumi* across Japan, in recognition of both the important role they play in wildlife conservation, and also in the country's

environmental and social history, an aspect that taps into the potential for heritage tourism.¹⁰

Economist Satoru Nishimura suggests that ‘a landscape with robust social functioning’ similar to *satoyama* and *satoumi* can still be observed in Amami, with villages typically being located between the mountains and the sea, and communities managing their own ecological system (2016:44). Izumi Washitani, a *satoyama* ecologist explains the ‘dynamic bio-interrelationships’ that exist in these spaces:

Satoyama landscapes are mosaics of various natural environments. Diverse species survive due to less interspecies competition due to human intervention. The diversity of plant species provides habitat and food ... Some species help the propagation of plant species by dispersing seeds and pollen ... mosaics of habitats in satoyama landscapes affect not only relationships between flora and fauna, but also gene flow and individual movement (2003:89).

Given Toguchi’s location cocooned between the river, mountains, forest, sea and the mosaic of ecotopes these landscapes contain – the *hatake*, the *dorota*, patches of trees and hedgerow, fruit groves, grassland, and irrigation systems – it could be argued that the village functions as *satoyama*, even if it doesn’t look like a classic Japanese *furusato* (old village). Yet, to my knowledge, the *dorota*’s ecosystem remains unstudied by ecologists. This point is significant because it is an ecology of production where human labour has created a suitable habitat for rare wildlife and deserves to be recognised as such. For example, Kazu-san and Shachō told me that there are at least five resident species of frog (*kaeru*), yet in most cases they were not able to recall their common or local names, only their genus. This also occurred with other genus as they were recounted to me:

tokage (lizard)

kani (crab)

imori (newt)

yago (dragon fly nymph)

gengorou (diving beetle)

¹⁰ The Ministry of the Environment has been at the forefront of the International Partnership for the Satoyama Initiative (IPSI), alongside the UN University building a coalition to support human-managed landscapes from Spain to Botswana. <http://satoyama-initiative.org/about/> Accessed:18.2.17

In contrast, Kazu-san and Shachō were able to name the resident snakes by species:

hyan (Amami coral snake)

akamata (Ryukyu odd-tooth snake)

garasubu (Amami dialect – for *garasuhiba* or Pryers Keelback snake)

Knowledge of snakes, their names, behaviour, and ability to recognise and speak of their differences demonstrates their prominence as recurring motifs of risk in Amami, but also how this risk has been capitalised upon. One used to be able to collect 5000JPY (35GBP) a piece for a live *habu*, the deadly and ubiquitous pit viper, when handed to the authorities. More recently this price dropped to 3000JPY per capture – perhaps less worth the risk, but in itself a less risky task since anti-venom is more readily administered at local hospitals.

Beyond those listed by Kazu-san and Shachō, a panoply of insects and plant species live throughout the *dorota*, changing with the seasons. Of those creatures I was able to identify using photography, many are listed as vulnerable or endangered by IUCN – for example, the *Coelliccia ryukyuensis amamii*, an endangered damselfly, and the endangered *Cynops ensicauda* or Sword-tail newt (both pictured below). Ecologists Yoshio and Matsui explain that these newts are found on ‘wet forest floors and in grassland, and [breed] in pools and streams where the larvae also develop’, but that there is a ‘continuing decline in area, extent and/or quality of [their] habitat’ (2004). *Dorotas*, increasingly in short supply, clearly provide the perfect ‘anthropogenic ecotope’ for these newts, since they were living abundantly at Kanai Kougei and laying their eggs in the concrete drains.

In addition, we would often observe Oriental storks and Grey-faced buzzards from the window of the *ai* workshop. As a point of comparison, Atsuki Azuma’s study of a *satoyama* in Chiba Prefecture describes the relationship that exists between resident frog species and migrant Grey-faced buzzards (2003:102-109). Arriving in the area in spring, they nest in the mountains to enable them to hunt in the *tanbo* to feed their young before the grasses get too high, when their line of vision will be disrupted. In Amami we would observe buzzards on their ‘perching point’ – a telegraph pole – where they had good views across the *dorota* and *hatake*. Alongside amphibians, it is

likely they would hunt snakes, lizards and rodents, the latter of which we knew lived in the workshop's stores.





Paru-chan comes to the (orange) *dorota* for a drink. The normally green *Sanenbana* plant rendered orange behind.

My skills do not extend to the identification of plants, but Kazu-san, who is highly knowledgeable about nature, told me much of the typical Amamian flora was resident around the workshop, alongside others that he found curious – perhaps even rare. These were naturally occurring or had been planted by the Shachō, such as the *fukugi* trees visible outside the workshop windows. The older craftsmen didn't pay significant attention to what was living in and around the *dorota*, not seeing the space as particularly unique, finding my questioning amusing. For example, I asked Kazu-san why the *dorota* had turned orange one evening (photo above) – was it connected to the *Sanenbana* (shell ginger) dying? He said no, it was because the Shachō burnt it. Asking why, he answered, 'he likes to burn something! A hobby maybe?' Was Kazu-san concerned about life in the pool when *ai* or any other substances did accidentally enter? He said, although he was no professor, he had never seen any dead creatures, so he didn't think it detrimental. He felt that their work in the *dorota* did not disturb the wildlife: 'Actually, by mixing up the mud we're adding oxygen to it, right? So maybe we're making it easier for them to live there!'



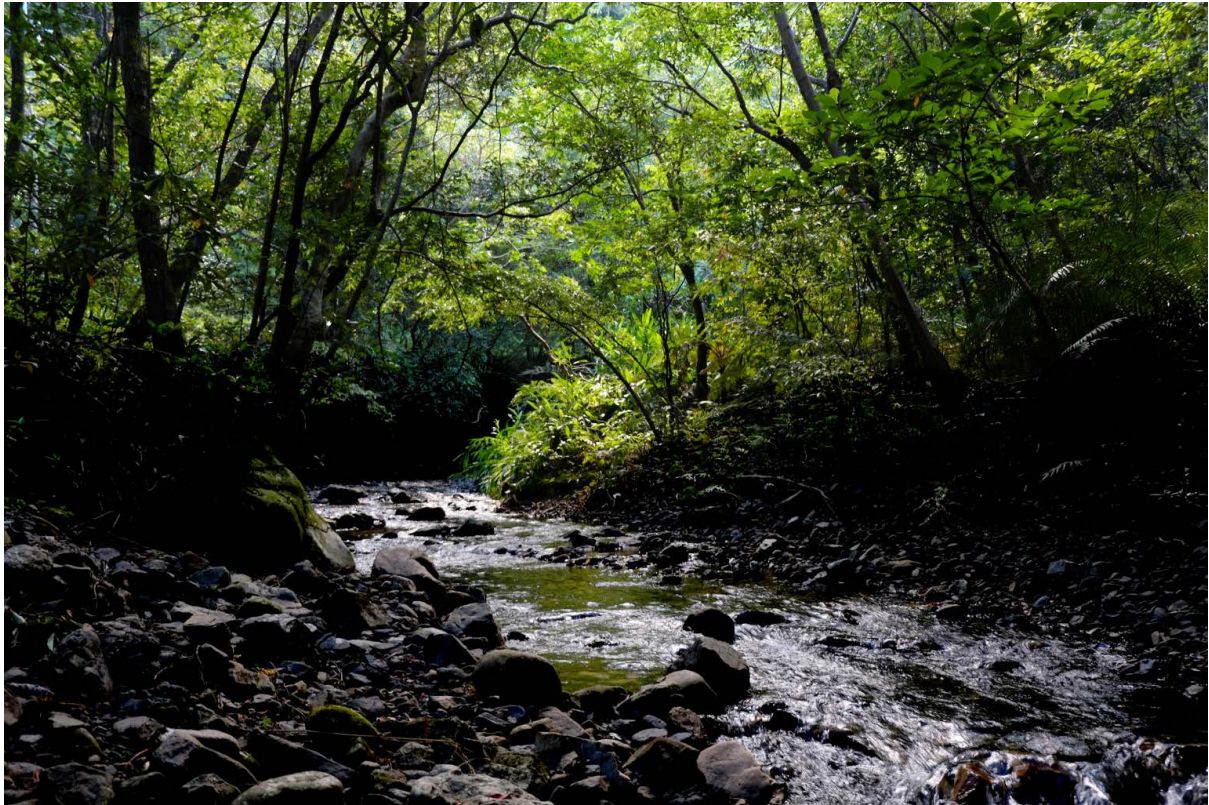
Beneath Toguchi village's well maintained but-not-much-visited Shinto shrine, there is a large *tanbo* (no.3 on map) that, since at least the 1970s, functioned as the *dorota* for all the village's dyeing workshops. Today, it is only used by Higo-san, Toguchi's one other remaining workshop, since Kanai Kougei built their own *dorota* next to the workshop approximately twenty years ago. The fact that their *dorota* is so 'young' is a village 'secret', as they have led people to believe the space was always there, since provenance matters in the heritage industry (see Chapter 1). To construct Kanai Kougei's *dorota*, mud was dug from their section of the communal *dorota*, and moved across to the site next to the workshop where it is found today. Although it is often said in promotional materials (TV, magazine, books etc.) that *sotetsu* (*Cycas revoluta*) leaves are placed in a *dorota* to restore its iron and copper content, Kazu-san explained that it is quicker to come to the communal *dorota* and dig more mud, since the iron content beneath the mountain is so high.



Walking to the old *tanbo* with Kazuko and Kazu-san, he told us that the *tanbo* used to be really huge, but some of the land had since been reclaimed by the owners. The photo above shows the area (with bathtub and umbrella) that is used by Higo-san's workshop, whereas the rest of the *tanbo* has grown wild, as Kazu-san explained:

Before, the plants hadn't come so close (to where we're standing). This looks like *makomo* (wild rice). Before it only started from about halfway to the other side, and now it's come right up to here. I really haven't been here for ten years or more, so I didn't imagine it had become like this.

Kazu-san said that there are *medaka* (Japanese rice fish) and *funa* (crucian carp) living here, since the *dorota* is waist deep. One might assume its mismanagement has been a mixed blessing for the ecosystem – while some species like *makomo* were thriving, the lack of human maintenance may have had a detrimental effect on less aggressive species.



On a narrow, winding road up into the mountains around ten minutes drive from the workshop the craftspeople stop at a spot on the river (*kawa*) near Kanai family land (no.4 on map), home to the small, endangered fish the *Ryūkyū Ayu* (*Plecoglossus altivelis ryukyuensis*). After fifty years of absence, the Toguchi River was recognised as a habitat of this rare fish, it being unknown whether dyeing, nearby mining or agricultural runoff had impacted its numbers. Since the stone quarry further up the mountain relocated to the neighbouring mountain thirty or forty years ago, the spot is remarkably quiet aside from bird-call, the bubbling river, or overhead *kaminari* (thunder). The village craftsmen have washed *tsumugi* yarn at this spot for over forty years. The water is clear of mud and debris, shallow enough to stand in, but deep enough to submerge textiles. It could be classed as a folk ecotope, since one wouldn't know it existed unless visiting with a *dorozome* craftsperson. I had been told that the *tsumugi* union required craftsmen to wash yarns in the river but Kazu-san denied this:

We don't absolutely have to wash the yarn in the river. But one reason for washing it here is it's best if the dregs can be rinsed out to a certain extent. Because actually, once we've finished dyeing and handed the products over to the buyer, they will lay them all out and wash them again.

Kazu-san explained that the nook where he stands has the perfect stream-flow since it removes the dregs without causing the fine yarns to knot. This knowledge has been passed on between craftsmen, with Yukihiro-san also using this exact location.



Signs are posted along the river, but mostly in areas uninhabited by humans, reading:

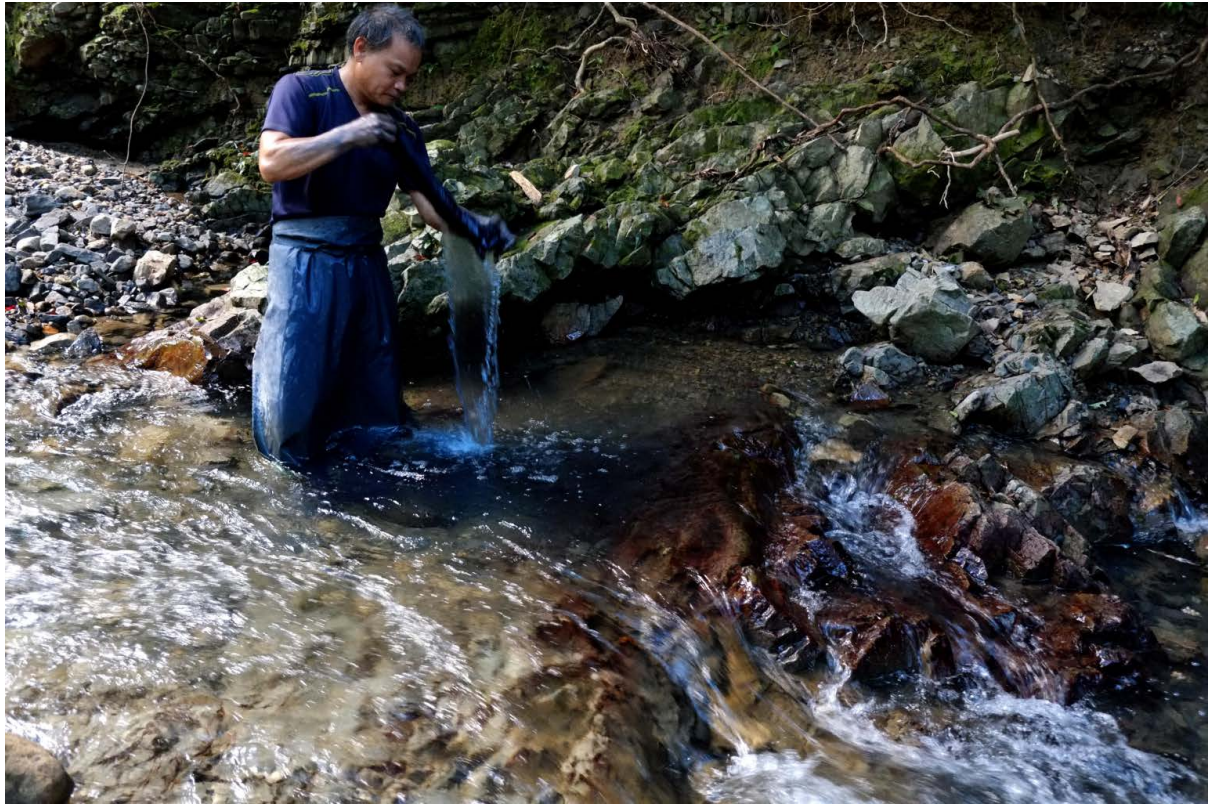
Rivers inhabited by *Ryūkyū Ayu*.

With everyone's participation we can nurture and increase the island's treasure.

○ *Ryūkyū Ayu* (*Yaji*) [local dialect] is biologically different from mainland *Ayu*, and is only existing in certain rivers in Okinawa's main island and Amami Oshima. It is a precious fish and it is threatened with extinction.

○ It is the first time in 50 years that *Ryūkyū Ayu* has been observed at the Toguchi River. Let's make an effort to protect the river's environment!

October 2008 Tatsugo, Tatsugo Town Board of Education, Kagoshima Prefecture.





There is a general consensus among the craftspeople that working in these spaces is essential for well-being. The Shachō reflected to me that: ‘I think working in nature is the best kind of work. When I go to Tokyo I feel that even more.’ The work conducted in the Toguchi river is physically demanding – washing yarns means plunging them in the water, moving them back and forth between the legs with a fast stroke, requiring strength in the arms, but also in the back and core, as one adopts a bent stance using the knees and mid-back. Most of the older craftsmen wear support belts to reduce back pain and hernias, conditions that plague the dyer. Despite such effort and pain, the beautiful spot on the river is a special place for the craftspeople. Yet Kazu-san joked that Yukihiro-san does not like it here, explaining that he once tried to grow *Ryūkyū ai* on nearby family land, but failed. The *Yutagamisama* (Amamian priestess) told Yukihiro-san ‘that the place was not good’, so he quit. Kazu-san laughed saying, ‘Yukihiro-san *really* likes *Yutagamisama*, and spiritual things!’ Yukihiro-san contested the influence of the *Yuta*’s advice to a certain extent; while he did seek consultation from her, he also recognised that he had chosen the wrong season to grow *ai* and that the land was far too shaded. Yet there is no doubt that the location is affecting, and the surrounding mountains were historically thought to be home to a myriad of *kami*.

Tim Ingold suggests that transferring beliefs and knowledge across generations is the way we learn to perceive the world. He says that ‘through its inscription in such objects or features – plants and fungi, waterholes and hills – ... cultural knowledge is transmitted’ (2011[2000]:21). He explains that these ‘objects or features’ act as ‘carriers’ for meaning ‘that constitute a specific cultural worldview or cosmology’ (ibid). Referencing Aboriginal Australia where ancestors are remembered through features in the landscape, Ingold claims that: ‘through conception, birth or long-term residence a person incorporates the essence of a locality into his or her own being, even to the extent of substantial identity’ (ibid:141). Tsing similarly describes how ‘[landscapes] are not backdrops for historical action: they are themselves active. Watching landscapes in formation shows humans joining other living beings in shaping worlds’ (2015:152). What is significant about the reflections of both Ingold and Tsing is their claim that the knowledge embedded within landscapes is not static but active, continuing to change hands even to those outside of local ancestral lineage. Cultural knowledge is embedded at the river, evident through the location of washing, but also in relation to Amamian cosmology that is passed down through local

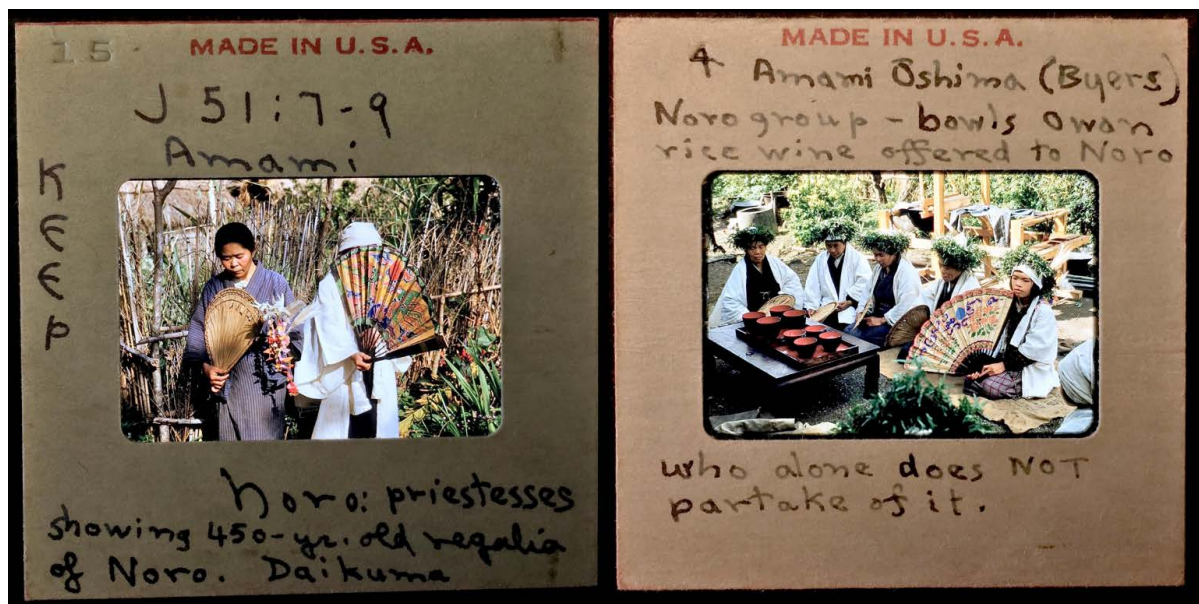
generations, but also on to newly settled residents. Understanding the spiritual significance of the landscape is important, but it is also important to comprehend how fresh water sources relate to human-made infrastructure. Taken-for-granted natural elements such as water contribute to economic production, ecological health, spirituality and wellbeing, and a sense of history and ancestry that might encourage respect and prompt sustaining processes.

Amamian spirituality, and patterns of land and resource use

Douglas Haring, the American anthropologist based in Amami for six months in the 1950s, asserted that ‘religious indifference ... characterizes post-war Japan’, but that in Amami this has been the case for ‘perhaps centuries’ (1952:63). Haring’s opinion, born out of a Christian understanding of monotheism and personal faith, does not necessarily translate to a country such as Japan where various forms of spirituality have co-existed for centuries (Covell 2009:150-151). Anthropologist Ian Reader has advocated that a downward trend in religion in Japan has prevailed since WW2 – a movement observed globally – as a result of urbanisation and increased access to education (2012). But in line with Japanese scholars, he challenges the assumption of secularization by Western researchers such as Haring by arguing that despite a general decline, there has been a simultaneous growth in new religions – mostly Buddhist or Shinto-related sects centred on the self (Hardacre 1986). Referencing recent Japanese scholarship (Manabu and Tatsuya 1994), he explains that what currently exists is an ‘increasing fragmentation of religious structures and an emergent individualization in which people ‘pick and mix’ a variety of practices together in a form of personalized religion, but without specific adherence or affiliation’ (Reader 2007:440). He also highlights the continued popularity of folk traditions and customs, that infiltrate everyday life across the calendar year (ibid:441).

From my observations in Amami, Shinto, Buddhism, Catholicism are all present, as well as Mormonism and Jehovah’s Witnesses who have gained a footing through a stream of young American missionaries to the island. But these introduced religions are ‘pick and mixed’ with indigenous religious thought, as exemplified by the *Kamidana*, where Amamian spirituality emerges as a Shinto hybrid. Yukihiro-san and many others in Amami continue to follow the local religious culture that is based on the *Unari-gami* (sister-deity) faith (ウナリ神信仰), stemming from Okinawa’s

Ryūkyū kingdom.¹¹ In Japanese folklore, *Unari* was said to be the protector of her brother *Ihiri*, but while she was benevolent, she also had the power to curse – a contradicting trait found in many Shinto gods (Igeta 1983:249-250). Haring suggests that this religion was similar to an archaic form of Shinto (1952:56-57), because at its base were spirits residing in springs, rocks, trees, and rivers. It was led by the *Noro* and *Yuta*, *kami-sama* (divine beings) who ‘constituted a female theocracy’ (Haring 1953:109). These hugely influential women presided over religious ceremonies and festivals and are today remembered as the central agents of Amami’s religious history. The *Noro*, who was the *kaminchu* (Holy priestess), officiated rituals, decreed laws, and collected tax on behalf of the Ryūkyū Kingdom (Takarabe & Nishimura 2013). The *Yuta*, hierarchically beneath the *Noro*, were priestesses with access to the supernatural world. In Haring’s Euro-American-centric judgment, they practiced ‘black magic’ and ‘death-by-cursing’ (Haring 1953:111), possessing the ability to contact divine beings and spirits.



Douglas Haring Papers: slides of a *Noro* ceremony.

¹¹ English and Japanese *Descriptions of the exhibits in the General Exhibition Hall* handout from Amami Park: Kagoshima-Prefectural Amami Nature and Cultural Center.



The geography of Amami island has physically structured religious practice. Geologically, Amami's mountains are centrally located, since 'the islands of the Ryukyu archipelago are the peaks of submerged mountains' (USCAR 1952:39). These slope down through forest into settlements (called *Shima*) that face the beach, looking out to the sea. At the *kamiyama* (celestial mountains) the *Noro* and *Yuta* would welcome the god of the mountains (*teruko no kami*), and at the beach the god of the seas (*naruko no kami*). They would then escort them along the *kaminichi* (celestial path) to the *mya* – a worshipping area historically found at the centre of Amami's villages.¹²

The above photograph, viewed from a location called *Amandhi* (アマンディ) situated at the top of a mountain, demonstrates this topography in the north of the island. This mountain is one of the main freshwater sources in Amami, and is said to be the most sacred and powerful spot, marked by a monument where the creators of the island, the goddess *Amamiko* and god *Shinireku*, fell from heaven. After ceremonies had taken place, the priestesses would return the gods to *Neriyakanaya*, a paradise out to sea said to bring bountiful harvests.¹³ The Setta Tategami rocks (節田立神) (above and below) mark one of the locations where the sea gods would arrive

¹² *ibid.* Some *Mya*'s have been replaced by schools or village halls, while others host *matsuri* and *sumo* tournaments.

¹³ *ibid.*

and depart from the island. The largest boulder is said to be the parent, with two accompanying rocks its child and grandchild (the *shimenawa* (straw belt) on the right hand rock indicating the residence of *Kami*).¹⁴ The Setta Tategami rocks sit on the edge of a coral reef that fringe the whole island, signifying the boundary between the land of the gods and that of the human, a boundary also distinguished by the forests that blanket the mountains.¹⁵ This is today the scene one approaches when arriving into Amami airport. It is also the place where officials from the Ryūkyū kingdom would disembark from their ships.



Amami's indigenous religion was suppressed by the Meiji government (1868-1912), which intended to 'civilize' Japan's 'wilder' regions (Yamashita 1952:13-14). Amamian women, for example, historically wore elaborate hand tattoos – protective markings that connected them with nature and the spiritual world – but these were banned in 1876, although the practice continued for some time despite threat of police arrest (Yamashita 1952).¹⁶ As Imperialism progressed, Clammer explains that

¹⁴ Amami does not have a strong *shimenawa* culture but has imported the tradition of bringing them into the home at New Year from the mainland.

¹⁵ *Description of the exhibits in the General Exhibition Hall*. Amami Park

¹⁶ I have a hypothesis that these tattoo patterns live on through *Oshima tsumugi* patterns, given their similarity, but it would be difficult to prove (Appendix 2).

State Shinto was introduced as an ‘attempt by the State to impose a systemized and bureaucratized framework...on the amorphous, localised and diversified forms of Japanese folk religion’ (2001:218), stressing ‘ancestor worship, the religious systemization of patriarchy and the recognition of the emperor as a living *Kami* or deity’ (ibid:224). While State Shinto was enforced in Amami until the end of the war in 1945, with shrines erected (at the cost of the village) and tended to by school children (Hardacre 2017:357), it never took hold on the island, with most shrines quickly abandoned with the new constitution (Haring 1952:57). There is little wonder, since for centuries the *Noro* and *Yuta* were deified as *kamisama*, meaning that women across Amami obtained equal respect to men. Spiritual ceremonies meanwhile were intimately linked with local geography, having very little to do with the State or Emperor. In addition, Amamian’s favour an element of autonomy, perhaps because of their history of perpetual invasion and subsequent forced labour (see Chapter 6). Even today there is an air of resistance in regard to authority, an attitude colloquially termed among my friends as *Amami sutairu* (Amami style). This was most frequently encountered through the bending or breaking of Japanese laws, particularly on the roads – driving without seatbelts, drink driving, jumping red lights, and speeding make driving on Amami’s roads a hazardous experience.

Haring claims that by the 1950s the government and state agencies success in weakening the influence of the *Noro* and *Yuta* was demonstrated by public confusion in regard to the structure and purpose of this faith. Yet, at this time, fear of ‘black magic’ and ‘cursing’ still lingered, with Haring recording methods of killing including the use of a combination of horse and human dandruff (Haring 1952:67-70). Today, what was a clearly complex religious practice continues to mystify. While fear of black magic might have been confined to the past, I was warned of visiting the notoriously secretive (Haring 1953) historic *Noro* stronghold of Uken village alone, as I was told by Yukihiro-san that my car tyres might be slashed. Many people visit the *Yuta*, who today work as mystics, speaking with the dead or future-telling for a small fee, a bag of sea salt and a bottle of *shōchū*. What has also remained strong are Amami’s varied and plentiful *matsuri* (festivals) that are scheduled by the lunar calendar and strongly linked to agriculture. For example, islanders participate in the festivities of the annual *hatchigatsu odori* (August dances), tie pine *ikebana* (flower arrangements) to door posts at New Year, wake at dawn and return at dusk to participate in *Shōchōgama* (below) and wrestle or spectate at the October *sumo* tournaments.



Ladies at the *Shōchōgama* ceremony held during *Obon*, singing the ancestors back to *Neriyakanaya*. They are dressed in a style of robe historically worn by Amami's priestesses.

I visited a tournament in the Kasari area with my friends Koki and Akiyo. It was held in the grounds of a large sports centre, but historically these tournaments would have been located in the village *mya*, directly connecting *sumo* with the gods. Our motive in attending was to watch Kazuko's children, who had been training for *mini sumo* after school or nursery for weeks. Tournaments take place in each ward with teams of men representing their village while children represent their school. The event was entertaining, but also intense and moving – we were all brought to tears when the girls defeated the boys.¹⁷ We were exhausted as we returned to the car, and Koki was quite overwhelmed. He put this down to large numbers of people participating and spectating created an intense force of energy beneath the *sumo* buildings. It was the first tournament he had attended, despite living in Amami for three years. He explained that when he first arrived, he avoided village events – or any situation where he might have to socialise with I-turners. Having lived in big cities his whole life, he was still learning how to calibrate his own social position in Amami. But he

¹⁷ Boys must participate between ages 4-16, while girls can participate optionally (pictured overleaf).

now saw why these types of rituals were so important, since they appeared to promote community bonding, collectively re-energising the crowds. Kazuko often succumbed to obligation to attend village events on weekends, but usually on Monday would enthusiastically elaborate on what she had learnt about Amamian culture, listing the friends that she had socialised with.

Whether or not people continue to ‘believe’ in the old or new religions, the existence of spirits or *Kami*, and the necessity of ritual practice, is perhaps beyond the point. As anthropologist Inge Daniels explains, rituals continue to play important social roles:

In the Japanese context, the personal and collective are considered complementary, and the notion of concern is integrated in the everyday lives of people through the enactment of rituals that recognize and maintain connections with others; whether with other people, dead or alive, with deities or with the inanimate world (2009:154).



On my second day in Amami, at the beginning of November 2018, I attended a *matsuri* called *Taneoroshi* (village festival) in Toguchi village, and on my third day another in my own village of Sedome. Traditional dancing, songs and drumming were enjoyed by the whole community. The party moved from house to house where we received food – *onigiri* (rice balls), fruits, *mochi* (sweet rice cakes) – and drinking

beer and Yakult late into the night. While these *matsuri* traditionally sought blessing from the gods for good harvests, their contemporary purpose was to celebrate the paying of taxes by each household, the amount of which was announced by an Amamian-style town crier that was received with cheers and applause. These taxes contributed to a fund put aside for village infrastructural maintenance, such as the repairing of low-lying electrical cables damaged during typhoon season. The festivals were also incredibly fun, and both myself and other tourists were welcomed to them with Amami's familiar spirit of hospitality.

In line with Daniels's research, my fieldwork shows that in Amami the 'enactment of rituals' continues to support the community's spiritual, physical and economic health. When living and working with the elements, the adoption of religious practice as a protective mechanism doesn't necessarily require 'inner belief' – something so personal, that it is difficult to ascertain anyhow (Daniels 2009:166). Daniels for example, describes the reverence given to traditional Japanese dolls, ritually gifted during rites of passage to absorb bad luck (ibid). These dolls are treated with 'special care' until their useful lifetime has expired, when they are ritually burnt during a Shinto shrine ceremony called *kuyō* (ibid:163) – as one of Daniels' participants puts it: "one never knows ... and it doesn't hurt" (ibid:167). At Kanai Kougei, Yukihiro-san hoped that the maintenance of their *Kamidana* would counteract the Shachō and Nagata-san's nonchalance, both of who frequently worked with a cigarette pursed between their lips. The presence of this mundane ritual perhaps served as a reminder not to be complacent. On an island such as Amami, where threats to life, home and places of work are encountered daily – from *habu*, typhoons, fire, even dangerous motorists – the 'one never knows' attitude can assist one in dealing with uncertainty. As John Clammer explains: 'Animism is not the worship of nature, and the function of ritual Shinto is not so much to get things done ... as to affirm, exemplify and to continually keep open the channels to a metaphysical and ontological reality' (2001:238). Ritual practice is consequently used to mitigate against uncertainty – but while the *kami* may be asked for protection, the question remains as to whether this protective spirit is reciprocated.

Haunted spaces: risk beyond the village



Under the rule of the *Noro* and *Yuta*, the beaches and forests were considered the boundaries between the land of the gods – being the mountains, sea and sky – and the land of the human, which was confined to the village. These boundaries were subsequently inhabited by a multitude of Amamian *yōkai* and *kami*. In the forests lived a *yōkai* called *kenmun*, who were small, hairy faced, naked forest sprites wearing plates on their heads (Haring 1952:68), that today can be found visually rendered across the island.¹⁸ The sad rumour that I heard in Amami was that *kenmun* were in fact the abandoned children of incest, born with physical deformities. Douglas Haring recorded many stories that warned of the *kenmun*'s mischievous and mythical nature, with people convinced of their veracity. According to his notes, they tended to appear most frequently when a man was drunk, who would need to outsmart it to avoid wrestling or being dragged around all night (ibid). The following anecdote comes from an informant, that Haring hastens to add was 'well-educated', who described the trees the *kenmun* liked to dwell in:



“Certain trees, usually banyan and sometimes pines, are *kiranki* [trees we don't cut]; ginkgo are *kiranki*; so, for that matter, is any large, fearsome tree. If you cut one you fall ill. Gods and *kenmun* live in big trees; some trees are inhabited by *ujigami* (tutelary deities). A tree spirit will take the form of a woman and seduce the unwary, thenP carry him away into the mountains and he never comes back” (ibid).

The *Noro* and *Yuta* forbade the clearing of the forest (Haring 1952:68), except for those areas designated as village commons. As a result, Takarabe and Nishimura claim that during the reign of the Satsuma clan in the period before 1859, the clan began a systematic campaign of oppression, decrying the authority of the *Noro* and *Yuta* as folk superstition (2013:16). The Satusuma saw the *Noro* and *Yuta* as an obstruction to the expansion of *kokutou* (black sugar) agriculture, which at the time

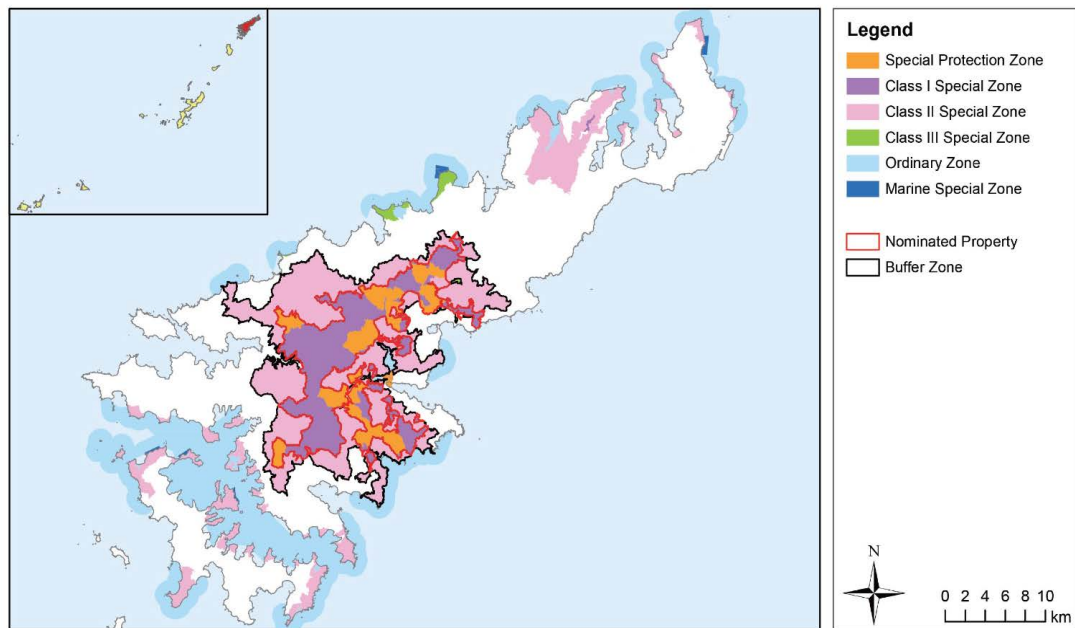
¹⁸ Source of *Kenmun* drawings above: http://www.airport-tv-network.jp/knmnfes_index.htm
Accessed:17.3.20

was a significant industry in Southern Japan (ibid). While the country had not yet opened to trade in cheap sugar produced by slave labour, the ‘ideology of improvement’ (Bhandar 2018:8) that sought to maximise productivity of the land and people had begun to breach the borders of Japan from the West. Douglas Haring explains that oppression continued into the Meiji era, demonstrating how the land was turned to profit:

Amami Oshima was covered with magnificent strands of virgin timber. According to popular belief trees were sacred to the gods and could be cut only with religious ceremonies. Japanese capitalists, however, acquired Oshima land and conducted large-scale lumbering operations. The gods took no apparent vengeance and the taboo against cutting trees was relaxed, but still holds among some of the peasants (1952:5).

Amami’s mountains continue to be forested and are largely undeveloped, although the majority is secondary growth planted under the guidance of forestry experts during the Edo and Meiji eras (USCAR 1952:33). This secondary growth is the source of most of Kanai Kougei’s *techigi*, since the forests were replanted with economically useful species used for timber, firewood, dyeing and so forth, a process that is discussed in the following chapter. Virgin forest is now only found at the centre of the island, in an area nominated for inscription on the UNESCO World Natural Heritage (WNH) list (bound by red on the map). These are some of the most sacred of Amami’s mountains, but they are also the least accessible, found far from any village. Even today, the roads to Kinsakubaru Virgin Forest, a National Park and ‘Special Protection Zone’, are challenging for drivers.

Toguchi is outside of these special zones to the north east of the island, and isn’t subject to restrictions such a tree cutting and the collecting of wild plants and animals (except those that are endangered). The forest remains sacred (or threatening) to many islanders, the consequence of mythologies around *kami* and *yōkai* alongside the omnipresent threat of poisonous snakes, resulting in a taboo preventing many from entering. But I would propose that an invisible boundary separating the village from the forest and sea, based on historical land use and cosmologies around nature, shepherds the way people in Toguchi continue to use their resources. This hypothesis might explain the presence of both a reverence for nature and polluting practices.



Amami Gunto National Park (The Government of Japan 2017:164)

From my observations, there is strong resistance to the development of land in the mountains, forests or beach, areas historically associated with the *Noro* and *Yuta*. This was documented as early as the 1970s when plans to build a central gasoline storage unit on the island of Edatekujima, part of Uken village (the former *Noro* stronghold), were abandoned because of environmental activism (Kuwahara 2011:87).¹⁹ There was also the Black rabbit law suit that occurred in 1995, as mentioned in the previous chapter, where plans to build a golf course were abandoned over concerns it would threaten the allusive rabbit's habitat. Although this lawsuit occurred 25 years ago, many Amamian's continue to resist development in environmentally sensitive areas. Political scientist Takashi Kanatsu explains that rather than activism being initiated by Environmental Non-Governmental Organisations (ENGOS), of which he argues there are very few in Japan, opposition to questionable development projects most often follow the not-in-my-back-yard (NIMBY) form of protest (2013:301). Nimby movements are criticized for being selfish, indicating that local residents care only about projects that will be detrimental to their own quality of life, pushing developments elsewhere. Yet Kanatsu explains that the nature of government in Japan, where prefectural and district authorities have the power to implement change and policy, means residents are able to take collective action and be heard. As a consequence of distributed authority, Nimby

¹⁹ The community were split on this decision but ultimately the activists won out.

action can influence national politics, since successful campaigns can be used as examples elsewhere.²⁰

Yet the pressure to develop Amami's natural and cultural properties is relentless. During my stay there were concerns about the expansion of cruise ship tourism, particularly the construction of a quay in Setouchi-cho on the south coast of Amami. This plan was supported by Japan's ministry of Tourism and Royal Caribbean cruises; one of the world's largest cruise ship companies. These boats carry around 5000 people, and were requesting to dock in Amami two or three times a week.²¹ A similar plan in Tatsugo-cho was dropped in 2016 and as of August 2019 plans had been rejected again in Setouchi-cho since the mayor (who was being pressured by the tourism ministry) 'could not gain the understanding of residents'.²² It was argued that the ships would damage coral reefs, local infrastructure could not cope, it would encourage unsustainable tourism – but in addition it was said that cruise ship guests spend very little when they come ashore, meaning financial benefits to the island were limited.²³

On the contrary to the success of Nimby campaigns, national plans implemented at a local level suffer from a lack of nationwide action that may be supported by ENGOs. For example, Amamian's are privately put out by the building of a Japanese army missile store in the mountains near to Naze (the largest town). The expansion of the base for the Japanese Ground Self-Defence Force is also looked upon with derision, since there are whispers that it is ruining chances for WNH status. With awareness of my interest, Kazuko read aloud a section from the local newspaper in which points were raised by residents to be discussed in roundtable-style events. One of these was to protest the newly housed missiles, but the newspaper wrote that the request for a community meeting had been denied by local authorities. It would appear that residents can take little action in relation to national security issues (as has been the case in Okinawa for decades – see following chapter) since military threats from China and North Korea are very real. This is highlighted by the aforementioned sacred site *Amandhi*, which today shares the mountain and its airspace with a

²⁰ See for example: 'Perishing Isahaya Marine Life Looks to Court for Salvation' *The Japan Times*. 5 June 1997.

²¹ Sado, Michiyo. 'Amami announces plans to attract thousands of large cruise ships from China'. *Epoch Times*. 16 August 2019.

²² *ibid.*

²³ Smaller cruises currently dock in Naze several times a week carrying Japanese and Chinese tourists.

Japanese Air Force base. Although the shrine located there was erected in the Meiji era and rebuilt in the Showa era is still visited by worshippers, Eriko-san told me that associated ceremonies have been relocated.

One environmental problem that is prominent in the national debate is the issue of where to bury Fukushima's contaminated waste, and to find a permanent home for the spent fuel rods produced by Japan's many nuclear power stations (see Chapter 3). In 2017, the government announced a plan to distribute the waste across the country, identifying 'favourable' areas with stable seismology for long-term storage.²⁴ A rumour was circulated via a scientist-friend of Yukihiro-san's that the government wished to bury this radioactive waste in one of Amami's mountains. This is a process being explored globally called 'geological disposal' that sees nuclear waste stored and sealed in mountains in perpetuity. Kazuko told me this would be 'in the hidden core of the forest if Amami became a national heritage'. Yet while many Japanese citizens sympathise heavily with Fukushima residents and those living in the vicinity of nuclear power stations, local Prefectures would need to convince their electorate to share collective responsibility for this plan to succeed whereas the public regard the nuclear issue as a government liability.²⁵ Kazuko said if the nuclear waste did come to Amami she would move, since she relocated with her family to escape the threat it posed to Tokyo after 3.11.

Nevertheless, despite the liveliness of local environmental activism in Amami, there tends to occur some fairly reckless practice in the 'back-yard' of one's own property, highlighting the paradox between discourse and practice. For example, in contrast to the rest of Japan where recycling has become 'precise and detailed' (Kanatsu 2013:303), attitudes to recycling in Amami are inconsistent. While my neighbour (a committed supporter of Amamian birdlife) religiously recycled PET bottles, removing the plastic labels and lids efficiently, she told me I couldn't recycle glass, 'just put it in the *gomi* (rubbish)', which was, of course, incorrect. Amamians also love to burn things, which Kazu-san even jokingly suggested was the Shachō's hobby. Wherever you stand on the island, you can always see somewhere a wisp of smoke arising from a fire, despite the fact that bonfires are technically illegal in Japan. Prior to at least 1960, there would have been no local authority waste incinerators accessible to the island,

²⁴ 'Map Released to Select High-Level Radioactive Waste Disposal Sites'. n.d. *NHK News*.

²⁵ KYODO. 'METI Maps out Suitable Nuclear Waste Disposal Sites'. *The Japan Times*, 28 July 2017.

perhaps accounting for this enduring habit.²⁶ Typically, agricultural and gardening waste is burned, and residents are clearly skilled at this practice as I rarely heard of larger fires breaking out. What you will routinely see though is the black smoke of burning plastic, a habit that the Shachō had adopted that angered Yukihiro-san, who explained:

if you just burn any old thing ... I don't think it's good. Shachō and Nagata-san, and my parents, don't think like that at all. But I think those who understand the risks should take care. I think about it, so I try to be careful to use fire properly.

The fact that polluting practices by local residents happen predominantly within the village boundaries is perhaps not surprising, given Amami's cosmological background where nature and *kami* inhabit the mountains and sea while people live and work in the village.²⁷ The disposal of *ai* and its chemicals happen within the workshop's walls, flowing to the river via concrete drains, then to the sea. The Shachō explained that dyeing houses were always located near the river, since in the past drainage infrastructure and mains water didn't exist. As in many countries, rivers were (and still are) the sinks that transport waste to the sea given that, by their very nature, rivers are self-cleansing. This was brought to the fore when Kanai Kougei was experiencing a rat problem – always treated as a serious issue, since rats attract *habu*. Eriko-san and I watched from the window one afternoon as the Shachō walked across the *hatake* carrying a large rat attached to a plastic glue trap. Being 'the Amamian way', we screamed (her in laughter, me in horror) as he nonchalantly flung it into the river. This anecdote evokes the Amamian version of the *mushi okuri*, 'an event designed to expel harmful insects in the community' (Ivy 1995:136). Across the Amami islands, ceremonies called *hamaore* were held each spring when *mushi* (pests) – mice, grasshoppers, snails and so on – were collected in the fields by villagers and loaded onto vessels such as leaves or small hand-carved canoes and floated away on the tide.²⁸

²⁶ Ministry of the Environment (2012:6). See also Wynn-Kirkby 2010.

²⁷ This is not exclusively the case since I encountered historic fly-tipping (evident by decomposition) when trekking in Kinsakubaru virgin forest, Amami's National Park.

²⁸ *Description of the exhibits in the General Exhibition Hall*. Amami Park.



Photo: Douglas Haring Papers. Dyers washing yarns in river, location unknown, but, could be Toguchi.

Anthropologist Marilyn Ivy describes the *mushi okuri* in Tōno district, Iwate Prefecture, northern Japan, in *Discourses of the Vanishing* (1995). She explains that variants of the ceremony exist across the country but that in the regions where it still occurs: ‘it has tended to become a performance piece as postwar pesticides eliminated the old antagonists of the ritual: the pesky bugs themselves’ (ibid:136). Ivy describes how Tōno’s *mushi okuri* transformed into a *mushi matsuri*, primarily aimed at children (ibid:139). She says that, in her opinion, ‘the event is an allegory ...of how such ritual processes are often constrained to operate under modern regimes of knowledge’ (ibid:139). As far as I understand these ceremonies no longer occur in Amami, but is washing a rat or the *ai* down river simply a way of expelling pollution from the island, ritual or otherwise, in the modern era? Mary Douglas suggested in her classic work on pollution that dirt is ‘matter out of place’ (Douglas 1984 [1966]:25), but in the eyes of Amamians of an older generation, the river is exactly where waste should go.

'An unacknowledged debt'

What I believe I observed in Amami is what Kazuko calls 'really Shōwa', indicating the attitudes of those born and reaching adulthood within the era of this name – 1926-1989. This was a period when the public (the world over) were seduced by convenience pushed upon them by advertisers selling products made with new materials. Governments meanwhile, wanted to boost public welfare and the economy so allowed industry to flaunt regulation in the name of progress. 'Really Shōwa' first arose in relation to the use of *amino* (アミノ), a highly ubiquitous additive used in junk food, that in the UK we know as MSG (Monosodium Glutamate). This amino acid is responsible for umami flavours that occur naturally in foodstuffs such as tomatoes, cheese or *kombu* seaweed, but it was chemically isolated and promoted as a condiment in Japan from the turn of the 20th century, under the brand name 'Ajinomoto'. Since there are questions over its safety in the diet (Wijayasekara and Wansapala 2021), Kazuko and I talked of it often. She told me that her mum uses it liberally in her cooking, believing it natural since it's (chemically) derived from cane sugar, and she encourages her to do the same. Kazuko told me it was advertised during the Showā era to 'make *any* dish delicious'.

Something similar was also happening in agriculture during this time, as anthropologist John Knight (1997) discovered during fieldwork in the late 1980s and early 1990s. He was researching back-to-the-land movements in rural Japan where 'settler' farmers from the cities were embracing organic methods. Yet he says that:

Village farmers use large quantities of chemical fertilizers, pesticides and herbicides on their paddy fields (although much less on those fields growing food for household consumption). Intensive farming kills the insect and plant life in the soil, leads to the deterioration of farmland and, along with the erosion of the forest topsoil caused by forestry practices, causing the silting of local streams and rivers. Villagers are not aware of these problems and attempt to offset soil depletion by replenishing their fields with topsoil from the mountains (ibid:243.)²⁹

²⁹ 30 years after Knight's research Rosenberger states that 'fertilizer and pesticide use are firmly entrenched' in Japanese farming communities (2017:21).

Agro-environmental scientists Katayama et al., who have studied ‘post-war changes in rice farming and biodiversity in Japan’ (2015), describe the government policy that encouraged the use of chemical agents and field consolidation for rice cultivation. This was against the backdrop of the Green Revolution, where ‘hybridised high-yielding varieties that require chemical fertilizers and pesticides’ were changing the face of rice farming across Asia during the 1950s and 1960s (Lansing 2007:3). Katayama et al. quote statistics that claim changing agricultural practices reduced farmers’ work hours by 86%³⁰, increasing their yield by 60.7%³¹ (2015:75). Between the 1950s-70s Japanese rice farmers were encouraged to use highly toxic chemicals, for example, ‘Organic mercury ... applied as a fungicide to prevent rice blast’ (ibid), which resulted in serious health consequences for humans and the environment. In 1963 and again in 1971, the government prohibited the use of some of the old pesticides that between the 1960s and 70s were responsible for a ‘mass die-off of amphibians and fishes’ in rural regions (ibid:76). Newer, ‘safer’ chemicals were developed, although these continue to have detrimental effects on the food-chain and delicate *satoiyama* ecosystems (ibid).

Rather than implying consumer ignorance, it is important to consider these choices within a context of the boom in chemical industries that thrived with scientific advancement during industrialisation, and as a result of the two World Wars. For example, the domestic chemical dye industry in Japan began around the outbreak of the First World War in Europe (1914), since the export of German chemicals abroad was interrupted. At this time, German exports ‘represented 88% of the world market’ (Beer 1959:2), so the impact of the war led to global shortages of chemicals essential for dyeing, but also photographic supplies and drugs manufacturing, kick-starting home chemical industries globally. These industries developed products to assist the dyer, but also the home cook and horticulturalist. This is not to say that the public were completely innocent as to the negative effects of domestic chemicals. Writing in the 1980s, anthropologist William Kelly, for example, explains how his participant farmers who monocropped rice in the Tohoku area ‘[recognised] the ecological danger of a petrochemical-intensive “scientific” agriculture’ (1986:10). To offset the anxiety this created, local rice farmers had additionally engaged in the organic cultivation of vegetable crops. This suggests that farmers were trapped in the

³⁰ Data collection: 1950-2010.

³¹ Data collection: 1946-2012.

economic bind of cropping high yielding rice varieties that could not be sustained without chemicals – much in the way Kanai Kougei must use chemical agents to speed up the production of naturally dyed textiles.³² Chemical agents have thus seeped into everyday lives, yet guidelines on the use and disposal of these agents have not always been appropriately communicated. The government’s relaxed approach to regulating big industry meanwhile, has hardly set an example to smaller industrial users, including traditional dyeing workshops such as Kanai Kougei whose practices, in the public imagination, are considered distinct from modern manufacturing (see Chapter 1).

Prior to my raising the issue, the disposal of industrial wastewater directly into the river did not appear a problem that registered high on the workshop’s agenda – but that is not to say the concern didn’t exist. Based on Japanese regulations, Kanai Kougei fall beneath the threshold of 50m³ of water usage per day subject to compulsory industrial wastewater management instituted by the government.³³ In addition, it appears that Kagoshima Prefecture, unlike other more industrialised areas, does not implement its own regulations for dyeing industries – possibly because the scale of the *Oshima tsumugi* industry has contracted substantially. After it had entered the drains I had assumed that the water at Kanai Kougei would be treated at a sewage works; the concrete infrastructure indicting a particular journey that I thought the water would take. But sociologist Kevin Hetherington claims that disposal ‘suggests too final a singular act of closure, one that does not actually occur in practice’ (2004:159). Hetherington, drawing on Mary Douglas’ work on pollution, explains that ‘matter out of place ... draws our attention to the spatiality of disorder and the subsequent ordering acts that aim to correct disorder’ (2004:162) – putting the rubbish in the bin, or the dirty water in the drain. This action signals an end to our discomfort. But Hetherington argues that disposal isn’t clean cut, stating that a ‘sticky state’ exists where waste moves between the ‘categories of presence and absence’ (ibid). By this he infers the tension held within waste. Its presence is made absent when disposal occurs, but waste has the potential to return to ‘haunt’ us if disposal fails. This is either experienced in the extreme through pollution or ill health, or more intangibly through the mental faculties or senses (ibid:171). He suggests that

³² Kelly also notes that farmers have become reliant on machinery to crop high yields but are indebted to these machines on which they have taken agricultural loans to pay for (1986:610).

³³ Kagoshima Prefecture Website. ‘Drainage Standards’.

'haunting' is 'an unacknowledged debt', a sense of guilt or anxiety one feels in the presence of failed disposal (ibid).

In order to rethink the stickiness of waste, Hetherington proposes upgrading the image of typical conduits such as the 'rubbish bin' or in my example the drain, instead seeing these conduits as *doors* that 'allow traffic in both directions' and can be opened or closed at will (ibid:164). Using such an analogy means that one can deal with the agency of waste more effectively, since it would promote 'successful doorkeeping' (ibid:171). Being a successful doorkeeper means taking social responsibility so that waste does not re-appear unexpectedly. As a consequence, doorkeeping means 'managing a whole array of social relations...in such a way that we affirm our membership of society effectively' (ibid), making a 'settlement' with ourselves but also 'others in terms of our memories, a sense of tradition, and through our relations not only with our contemporaries but also with our ancestors and future generations' (ibid:172). Donna Haraway calls this taking 'response-ability' (2008), a term described by geographer Sarah Whatmore as 'the kind of political and ethical thinking that is called forth by the capacity of all manner of things, human and nonhuman, organic and nonorganic, to move and be moved by others' (2013:38). 'Response-ability' moves beyond the humanistic approach of Hetherington to a respect and response that knots species in an encounter. 'Response-ability' thereby suggests that to be a successful doorkeeper one needs to 'pay attention' to the needs of our 'companion species' (2008:19), initiate a reaction, and develop the skills to take action.

As I have shown in Chapter 4 and throughout Chapter 5, longstanding practices can become problematic if they are not updated for contemporary circumstances. What is troubling about certain industrial chemicals and materials are their invisible nature – with their misuse or improper disposal rendering them what Hetherington would call 'unsettled spirits' (2004:172). These are the 'secular spirits of the Anthropocene' that Nils Bubandt suggests emerge when nature collides with industrial capitalism, producing an 'aporia' or sense of uncertainty outside of one's control (2017:G124). This indicates that the chemicals themselves are not always at fault, since the uncertainty that they produce is the result of human action. This is perhaps the case with both synthetic German indigo or a dyebath made with *Indo ai* and reducing agents such as hydrosulphates. If the chemicals needed to prepare dyebaths are

handled correctly through make, use and disposal, there could be a case in their defence when compared with *sukumo*, a more ‘natural’ alternative. While *sukumo* seems more environmentally friendly at the dyeing and disposal stage, in a fair comparative study one would need to ascertain how sustainable *sukumo* production is from seed to dye paste, examining pesticide and fertiliser use in cultivation, water run-off and the labour conditions. This highlights the complexity of assessing sustainability, demonstrating how the quantity of harmful materials, context of their use or ineffective disposal are all potentially damaging factors that once again result in uncertainty.



The drainage canal and two volunteers collecting plastic that washes up on Sakibaru beach.

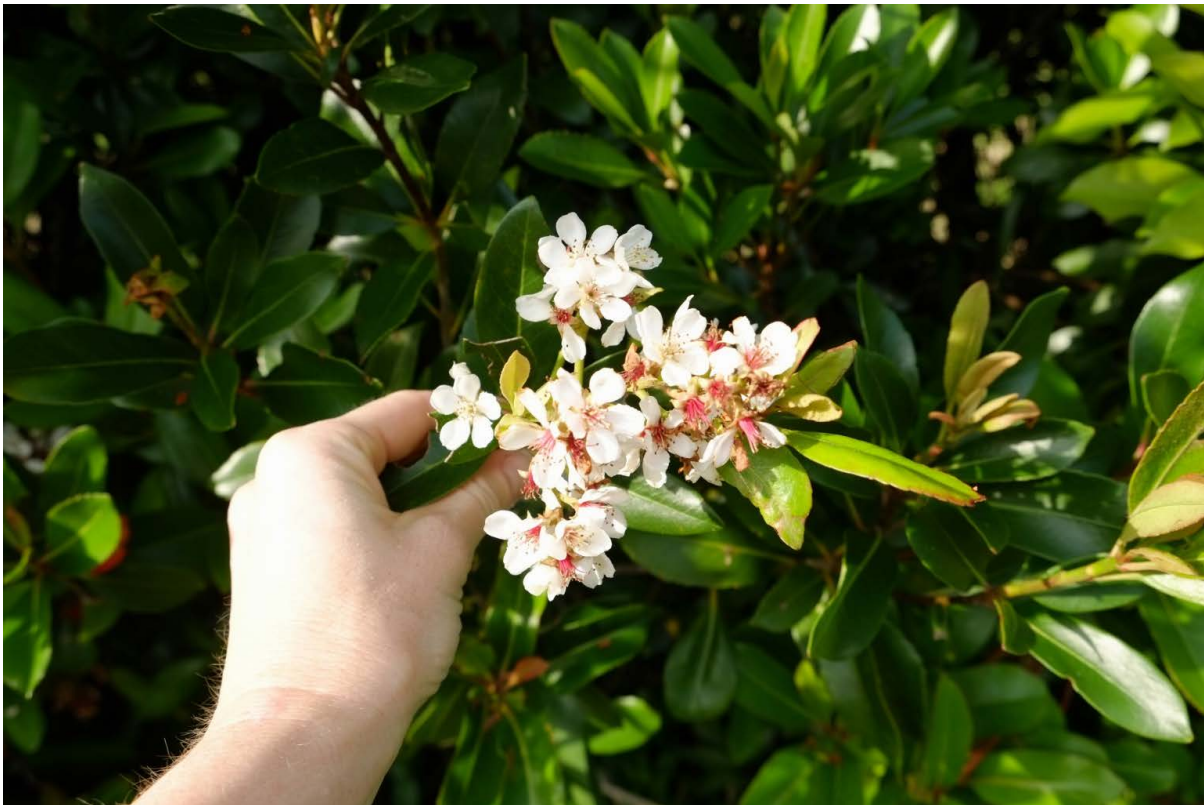
What is therefore required are a series of doorkeepers throughout the life of the material, whom will need to uphold their social responsibility at every stage under their care. This was demonstrated by Koki in his village of Sakibaru, where all household wastewater is washed out to sea. While toilets are dry, anything else that enters the drains will find itself on beautiful Tomori beach, popular with tourists but also nesting sea turtles. When Koki realised this he took ‘response-ability’ by switching all of his detergents to more expensive, eco-friendly solutions. Koki’s background and his exposure to the global circulation of ideas meant that he sought a ‘resolution’ to offset feelings of doubt (Pelkmans 2013) – prioritising the issue despite his low income.

Koki's desire to find a resolution might have been the result of his own experience of failed doorkeeping by the government, local bureaucrats and big industry while living in Tokyo. The bureaucratic failings of the state that led to one of the world's worst nuclear accidents after 3.11 meant that residents felt that the economy had been prioritised above the health of citizens and the environment. This trust was eroded further when the Japanese government assured residents that radiation levels in the air, water and food were safe, despite the lack of strong scientific evidence to back their claims (see Chapter 3). Residents consequently experienced anxiety, which anthropologists Jackson and Everts suggest can be a social condition caused by 'events that rupture the fabric of everyday life' – drawing focus 'to our own mortality and the destabilisation of established systems of meaning' (2010:2791). 3.11 was an event of significant magnitude that turned a local pollution issue mostly encountered by fisherman working near nuclear power plants into a national debate. As a result, residents sought their own resolutions to offset anxiety that might have expanded to other forms of pollution. Kazuko, for example, refused to work with the *ai* after she became pregnant with her third child. At first the smell didn't agree with her morning sickness, but she later read online that hydrosulphates can be harmful to unborn babies. Like the respect paid to spiritual beings that reside in inanimate objects or landscape features, the "one never knows ... and it doesn't hurt" (Daniels 2009:167) attitude was adopted.

These examples begin to make sense of how 'hauntings' – anxieties experienced in the presence of failed disposal – prompt the 'settlements' that Hetherington speaks of, where conditions might improve because of a desire to seek resolutions, but also a sense of social responsibility towards human and non-human species, cosmologies and traditions. These might be Koki's change of laundry detergents, Yukihito-san directing staff to dilute *ai* before disposal, or as was described in Chapter 3, Eriko-san finding new purpose for old kimono or the Shachō donating *tsumugi* looms for firewood. If uncertainty forces resolutions it might also have the potential to prompt sustaining processes. As I showed in Chapter 4, the global circulation of ideas can result in a reassessment of environmental practice, as demonstrated by bird conservation in post-war Japan. In this case, songbirds that were eaten in times of scarcity reverted from commodity to companion, since respect was re-established for their pollination and pest-control skills. In addition, their role in social, cultural, economic and political life was reappraised leading to a change in status. Concern

over climate change and mass species die-off will heavily infiltrate polluting industries such as fashion and textiles, meaning production processes will be subject to intense scrutiny. In my opinion, the pressure to uphold the image that natural dyeing is sustainable will only intensify as environmental movements spread globally and governments see environmental pollution as a threat to national security.

Yukihito-san acknowledges that there is an issue with the drainage and has never shied away from this admission. Further to our discussions that revealed the environmentally conducive action that his peers at Takarajima Senkou are taking, he has quietly gone about improving the situation, his environmental consciousness likely suffering a haunting. Although it wasn't my intention, one must ask whether I acted as a catalyst for change by drawing attention to the problem? Mathijs Pelkmans explains that 'anthropologists are trained to question their own assumptions in order to gain new insights', therefore what occurs during ethnographic fieldwork is 'a twofold critical stance – towards internal assumptions and external assertions – [that] is not only important for generating analytical and empirical questions, but also for reaching higher levels of reliability' (2013:10). What I have been able to ascertain is that being a successful doorkeeper is by no means straightforward. There is a possibility, for example, that Yukihito-san will not be able to implement significant change to Kanai Kougei's practices of disposal until he becomes the Shachō himself, since polluting practices in Amami have become what Lora-Wainwright calls 'embedded and normalized' (2017:9). This is the result of decades of habit instituted by the Shachō's ancestors and contemporaries within the *tsumugi* community where the flow of water has been used to dispose of ritual pollution, but also industrial waste. In the final chapter, I show how community dispossession of land and resources, as an impact of geopolitical and economic forces, has led to the breakdown of ecological knowledge of using and conserving ecosystems like the river. Nils Bilbandt claims that 'in the Anthropocene, both climate science and biology seem to bring spirits, once thought to have been killed by secular thought, back to life' (2017:G125). But, as I have demonstrated, Amamian spirits have not been 'killed off' they have simply taken new forms, adapting to contemporary circumstances. So, one might ask, like the songbirds that have become companions in Amami, how might the river be shown the same respect?



Arriving to work one day in April, Kazuko showed me a sprig of *sharinbai* (Yeddo hawthorn) blossom that she had picked by the *dorota*. This enabled me to identify the slow growing evergreen throughout Amami's villages, planted in the yard of Tastugochō power station, dotted wild throughout the forest or by the sea – a position it favoured most. Access to bright sunlight on the coast means these trees grow strong and tall with heartwood of a deep red sought out by the dyer. *Techigi* is the Amamian name by which both the tree and the liquid used for *dorozome* is known. Although found all over Japan and Korea, the species remains especially valued in Amami with Kazu-san confirming that its fleshy black berries were eaten in times of famine – his mum used to eat them and he remembers snacking on them too. Kazuko tried them on my behalf when I was back in the UK and the berries returned to season: 'THIS IS NOT FOOD!' she typed, 'it tastes like a weed or flower which we don't eat.'

Kanai Kougei used a huge amount of *techigi*, but it took me almost a whole year to establish exactly where the trees came from. In the first few months of my time at the workshop logs would arrive in the back of a beaten up, silver hatchback driven by the

enigmatic Tanaka-san, often accompanied by his girlfriend.¹ On one occasion the Shachō told Kazuko that he had brought us a stolen tree. ‘Stolen?!’ I asked, a little surprised. ‘Yes’, said Kazuko, ‘he took it from someone’s mountain without gaining permission.’ As we chatted, Eriko-san emerged from the office with a bunch of thousand-yen bills. Sometime after New Year, I heard that Tanaka-san had died unexpectedly. After he passed away the job of collecting *techigi* fell to the craftsmen. Takahito-san and Yuske-san, the youngest male members of staff, did the collection for a while but after Yuske-san was let go the female dyers would also take turns, returning to the workshop looking exhausted. I had established through interviews that the *techigi* came from forest that was being cleared, with the timber shipped to the mainland for processing into paper. As *techigi* tannins are red, these trees were set aside to avoid contaminating and tinting the pulp.



Tannins are ‘complex chemical substances derived from phenolic acids’, residing in ‘the bark of trees, wood, leaves, buds, stems, fruits, seeds, roots, and plant galls’.² They are embedded in plant structures as protection from bacteria, fungi, or pests – a quality that can be passed onto an object when such plant materials are used as dyestuffs. Since tannins are ‘large molecules that bind readily with proteins, cellulose, starches, and minerals’, it makes them useful as mordants that bind with other molecules to textile fibres during dyeing.³ In the case of the mud-dyeing process *dorozome*, *techigi* is used as a mordant since the tannins bind the iron molecules that occur naturally in Amamian mud to the cloth. But *techigi* is also a strong colourant,

¹ ‘Tanaka-san’ is a pseudonym.

² U.S. Forest Service website. ‘Tannins’.

³ *ibid.*

since the density of tannins means a textile can be changed from white to pink to red to brown, or, with repeated applications, black. As the Shachō explained:

Nature [*shizen*] is at the heart of *Oshima tsumugi* and *dorozome*. The dyeing materials come from the trees, the mordant comes from the soil – we used to have a slogan at Kanai Kougei that was ‘*chikyuu de someru*’, ‘dyeing with the Earth’. This work is about dyeing with ingredients from the trees and the soil, natural things, so nature is important.

The Japanese word for nature, *shizen*, that Shachō used, has been much discussed in Japanese Studies (Asquith and Kalland 1997:8-10).⁴ It was originally thought to reflect the more spiritual, inner nature of humanity or ‘unconsciousness’ (Moeran 1997:86). Ethnologist Josef A. Kyburz explains that in Japan “‘nature’ seems to have been no different from the cosmic whole of which man and his culture are integral parts’ (1997:273). Meiji Japan (1868-1912), however, used *shizen* to formally conceptualise the non-human – mountains, rivers, plants, wildlife etc. – under one term, adopting the Western meaning of the word ‘nature’ (ibid). In the context of traditional Japanese pottery, Brian Moeran has spoken about the *Mingei* (folkcraft) movement’s leader Yanagi Soetsu’s frequent use of *shizen* in his writing. Soetsu believed that for *Mingei* to be beautiful, ‘all craftwork should ... be focused on nature’ (1997:32). This meant using local natural materials but also, as Moeran explains, ‘the craftsman could obtain a “pure land of beauty” by surrendering his self to nature’ (ibid:32). In Soetsu’s opinion, craftwork should be at one with the environment and the inner spirit but also one’s community, since ‘cooperation bound not only one person to another, but humanity to the whole of nature’ (ibid). Although *Mingei* was represented in physical form, it was also an ideology that did not necessarily take into account the everyday social, economic, and environmental realities experienced by craftspeople, much in the same way contemporary sustainability discourse fails to do (see Chapter 1).

In Shachō’s use of *shizen* I believe he was referencing the importance of the practical aspect of natural materials as being key to the dyeing process, as would be conceptualised along western values of resource management. But it is important to note that the Shachō’s slogan ‘dyeing with the Earth’ is not only referencing the soil

⁴ *Shizen* is a noun borrowed from China around 500AD.

but the Earth – our planet – as being part of the dyeing cosmology. Although it would be difficult to analyse this point based on a quote from an interview, throughout the course of this thesis rooted in an ethnography of living and working in Amami, it is clear that there exists a parallel understanding of nature that goes beyond resource management. The more social and spiritual dimensions of craftwork that involve the craftsperson communing with nature, environment and community through materials and process has been explored and critiqued. In this Chapter, I examine in detail the craftsperson's relationship with nature via trees and land using the specific socio-political and economic history of Amami. I argue that the two understandings of nature – one that is practical and economic, another founded on care and respect for the environment – are so complexly intertwined that it is difficult to separate one from another. I therefore seek to understand how local relationships with natural resources have at times been undermined by national and global power plays that have had a huge effect on a community's ability to access resources. This has had an economic impact but has also had an impact on local cultural practices. The purpose of this is to articulate the threads that have been broken where care for nature goes beyond material needs. I question whether a community's divorce from the land via legal and economic frameworks is, in some respects, responsible for the contemporary ecological crisis. Although this question goes beyond the scope of this thesis, I use the context of Amami to show how locally specific social, economic and cultural conditions might affect the ability to address ecological crisis, especially when conceptualised within a contentious history.

To allow me to interrogate these ideas and question why it was so difficult to establish the source of dye trees in Amami from the outset, across the following pages I explore how *techigi* and thereafter *fukugi* (*Common Garcinia*), trees that are vital for the dyeing process at Kanai Kougei, merge with the social, economic and cultural. This intertwining occurs through informal systems of exchange that allow the trees to undergo commodification, resulting in materials for the dyer. By focusing on trees little considered beyond the Ryūkyūs, I show how political and economic drives firstly by colonial and imperial forces, and secondly by Japanese nation state building have disrupted local patterns of land-use and affected access to resources and knowledge of how to use those resources in the present. To explicate these happenings requires tracing the history of land and resource rights back to the Tokugawa period (1603-1868) to demonstrate shifts of power from the local to the national and back again as

they occurred after the Meiji Restoration and once more after WW2. This history focuses on the intimate relationship between forestry and agriculture that was essential for survival prior to increased national and international trade, and the introduction of new materials through industrialisation. Such an analysis demonstrates how nature has been conceptualised in order for different social units to accumulate power, wealth, and property. It also brings clarity to the relationships that have allowed for accumulation and how these relationships are constructed, sustained and evolve across time (Collinson 2003).

By focusing on the social life of trees in Amami and the community's ability to access them, one can better comprehend their 'real worth' and the importance of nature to the craft process. I argue that by explicating the dynamic between the *practical* – the use-value of resources embedded in the land – and the *spiritual*, that may more broadly be conceptualised as respect for nature, one may better understand how craft materials and resources are not only a matter of concern for commodity production, but are part of a larger whole.

Forestry and the US Occupation of the Ryūkyū islands

In order to understand how forest resources are accessed and conceptualised in Amami in the present, it is helpful to begin with post-war development policy and legislation implemented by the occupying US Allied forces in the 1940s and early 1950s. This data, drawn from *Special Bulletin No.1* (1952) and *No.2* (1953), offers a doorway to the long and complex history of land rights and access in Japan that was particularly contentious for Amamians. The reports were produced by the occupying US Civil Administration of the Ryukyu Islands (USCAR) after WW2 to document the 'use, distribution and adaptability of native and introduced tree species' (1952:I). The bulletins could be classed as ethnobotanical, since they cover the history of forestry practices but also the biocultural diversity of the islands and how resources were used based on local testimony. At the time of the bulletins' writing, out of both want and necessity Ryūkyū islanders used local materials for building, medicines, cosmetics, clothing, fuel, food, tools, fertilizers and more. This reliance is in contrast to the situation today where timber for building is shipped in from Kagoshima and Miyazaki Prefecture in Kyūshū, and imported commodities have almost exclusively replaced local materials for use in everyday life. *Techigi*, for example, was predominantly used

as a dyestuff in the 1950s as it is today, but it was also used for ‘posts’ and ‘roofing poles’ in construction, ‘cut flowers’, and commonly used for ‘fuel’ (1952:30-31). It is also quoted as being present in the ‘yard’ and used as protection from the ‘tide’ (ibid). I argue that the USCAR reports, or at least what they represent, were the most recent catalysts for change that disenfranchised local people from the land. This has led to the dispossession of Traditional Ecological Knowledge (TEK), and eroded the capacity of local people to implement reciprocal practices of care.

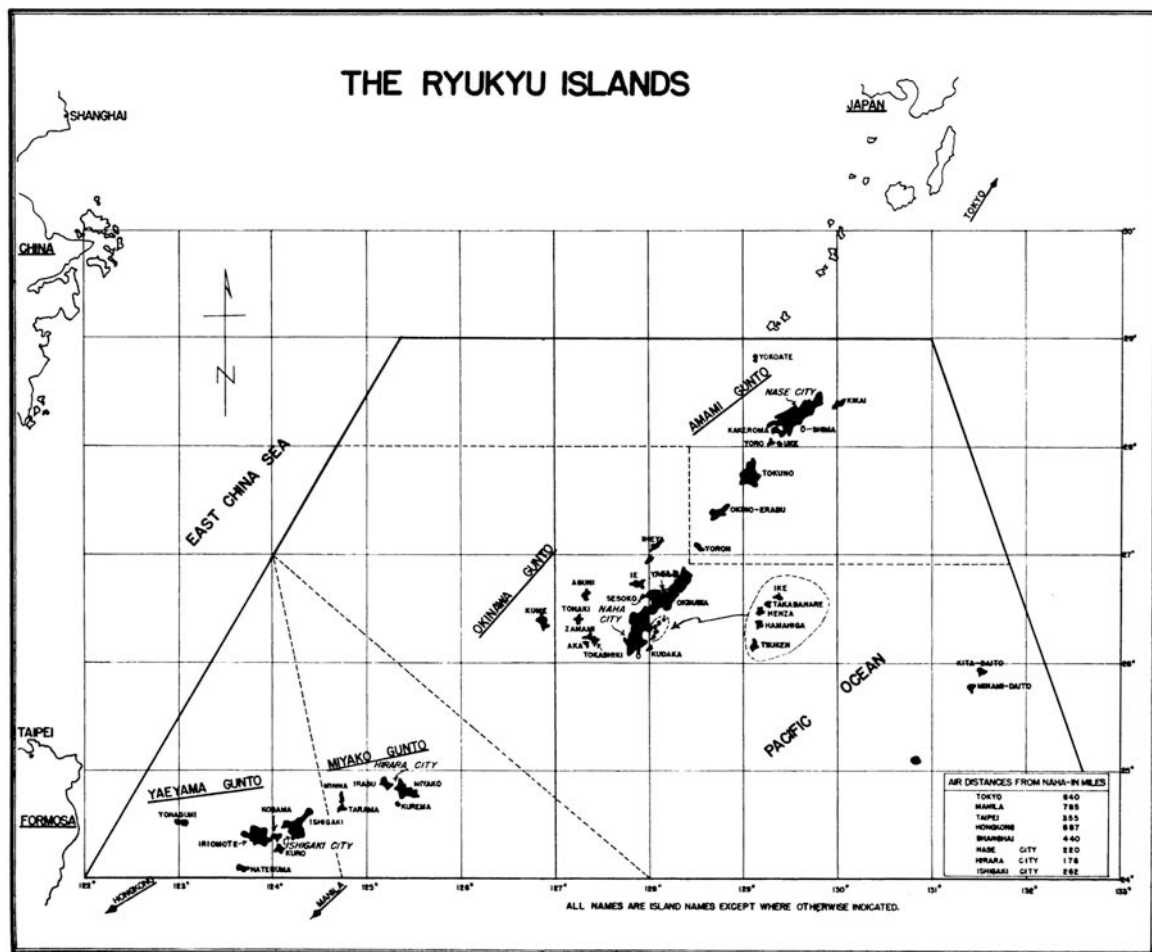


Image: USCAR 1952:2. North to South - Amami, Okinawa, Miyako, Yaeyama island groups.

Collated by both American and Japanese forestry experts, the bulletins detail 207 native trees across the Ryūkyū island chain including Amami, Okinawa, Miyako and Yaeyama (see image above). They also map soil types, the distribution of land as property, the history of local forestry, adaptability of exotic or productive species and the economic potential to ‘improve waste lands’ by implementing reforestation in depleted or old-growth areas (1953:12). The additional content of maps, statistics, diagrams and photographs provide an impression of ‘colonial science’, a term that

Asian Studies scholar Morris Low defines as: 'the overt use of scientific research for territorial expansion and domination, and also the use of a colony or territory as a source of scientific and often commercially useful material and data by the home country' (2003:100). Low uses this term to explore Japanese colonialism in Manchuria during the 1930s, but it was a method learnt from European colonisation and 'imitated' (McNeill 2009:476) by American scholars such as anthropologist Douglas Haring (Chapters 1 & 4) and ornithologist Oliver Austin (Chapter 4) who assisted the military in post-war Japan. The motivation behind the reports is economic, in that they were produced with an eye to how local government can 'democratically' and 'independently' manage 'internal affairs' to obtain 'self-sufficiency' upon revision to Japan (1953:I). This was envisioned through the 'future development' of the Ryūkyūan forests as a source of industry via 'efficient systems' of administration and management (ibid).

The Americans have a history with 'imperial environmental science' that encompasses 'botany, scientific forestry, meteorology, or sanitation' (McNeill 2009:475) in their colonial expansion beyond North America in the Pacific and Caribbean, but also Korea and the Philippines. Historian J. R. McNeill explains that 'science and scientists had acquired sufficient knowledge and power that they could hope to alter nature' in the colonies 'with the clear intent of making both [nature] and the people living in it easier to govern' (ibid). Trees have always been important to colonial expansion, wealth accumulation and bureaucratic ordering from the felling of mahogany on the Caribbean slave plantations of the 17th century for the luxury European furniture market (Funes Monzote 2008) to the ornamental species furnishing the boulevards and public parks of colonial cities. In Rudolf Mrázak's architectural history of the Dutch in Indonesia, Mrázak claims that 'naturally growing trees ... were becoming something of a sign of imperfection' (2002:66). These were the huge and ancient banyan trees with their stretching limbs and aerial roots that are sacred in many Asian regions (see Giambelli 1998 in Bali). Banyan were replaced with 'display trees', fast growing and controllable species that suited the geometric lines that brought order to the tropics (Mrázak 2002:66). To the European sensibility, such order was necessary to tame Asian landscapes defined by what historian David Arnold (2005) calls their 'tropicality' – a threatening presence that encompassed extreme weather, disease, poisonous animals, aggressive weeds, vivid colours, 'natives', and supernatural forces.

In 1898, when the American's took possession of the Philippines from Spain, while still fighting the Philippine Revolutionary Army the US military undertook a mission to control the forests and their inhabitants (Bankoff 2009:480).⁵ While highly critical of the Spanish system of exploitation that was inefficient, destructive and unpoliced, the forests provided a panoply of species with untold commercial value that might solve timber supply issues caused by the over-exploitation of American forests. Under the instruction of Gifford Pinchot, who environmental historian Greg Bankoff calls, 'the "father" of professional forestry in the United States' (2009:479), they set out to implement scientific management plans developed in the US in very different environmental (and cultural) conditions in Southeast Asia (2009:283). Overhauling regulations that governed forest access, and carrying out silviculture and mapping surveys, US foresters set about both conserving and exploiting the remaining Philippine forests by instituting management to make them economically sustainable.

Whereas in the United States, conflicting laws and interests that governed federal, state, public and private property reduced the possibility of implementing forestry regimes of 'utilitarian conservation', Bankoff claims that in the Philippines foresters encountered little resistance since the 'colonial condition' provided the authority to 'put into practice what they preached' (2009:485-6). Issues that arose were the policing of rural peoples who used slash and burn techniques, and the control of the rampant forest undergrowth that suffocated saplings. Forest residents were frequently criticised by the administration since their 'land use system ... did not conform to American ideals of individual land ownership' (ibid:219). Historian Nathan Roberts claims that the authorities cleared areas in order to force 'shifting agriculturalists' to settle and 'bring all Philippine forest users into an ideal of forest modernity' (2014:218). This 'modernity' included the enclosure of no-cut zones and the creation of National Parks, while commercial lumber was better accessed via new roads and railways, and logging engines and sawmills expanded productivity. Timber exports consequently rose from '94,000 to 2.5 million cubic meters between 1901 and 1940' (Bankoff 2013:543).⁶

⁵ The Philippines were colonised between 1898-1946 by the US, although they have maintained Naval bases on the islands since.

⁶ This biodiverse resource led the Japanese to capture the Philippines in 1941 (Bankoff 2009).



Arriving to the Ryūkyūs in 1945 – hugely biodiverse islands with a thick cover of subtropical mixed broadleaf forest – expert foresters who had been trained in the U.S. Forest Service, an agency established by Pinchot, encountered similar problems of low productivity and a style of management that was seen as an obstruction to the industry’s potential. The experts stated that in the least accessible forests many large ‘decadent’ trees were ‘defective’ and ‘going to waste’ (ibid:22). In contrast with current thinking in environmental and scientific circles where old growth is considered both ‘beautiful and biologically rich’ (Prudham 2011:94), large trees during this period were deemed economically unproductive since they restrict surrounding growth. In Amami however, large ‘fearsome’ trees such as banyan were considered home to *kami*, *kenmun* and *yōkai* designating them *kiranki* (trees we don’t cut), for fear of upsetting spirits that might result in illness or death (see Chapter 4). Yet as in the Philippines where the Americans had authority, folklore was overridden by rationality and economic potential in the pursuit of ‘even-aged monoculture strands of commercially significant tree species’ (2011:93). The report’s authors concluded that while forest management was in parts ‘good’ with the forestry skills of the people ‘advanced’ (1953:37), they consistently expressed frustration with locals who, out of desperation, overcut immature forest close to the village for firewood or cultivatable land. As was explained:

Present-day Ryukyuan are ... industrious, cooperative and have an instinctive bent toward soil and resource conservation. Most live on a subsistence level, and immediate needs take precedence over long-range considerations. Under economic pressure and in the absence of strong control, they engaged in the destruction of timber resources. Traditional ways of doing things have a strong hold and changes are slow and difficult (1953:5).

Similar to the situation described with wild birds between the 1930s and 1950s in Chapter 4, concerns about ‘drain exceed[ing] allowable cut’ (1953:22) were experienced across the whole of Japan, meaning forests were being cut at a rate faster than they could naturally regenerate. Historically Japan has relied heavily on wood for domestic consumption in the building of houses, temples and shrines from post and beams to flooring, roofs and cladding (Hanley 1997:54), making it a country that anthropologist John Knight (1998) describes as having a ‘tree culture’ (*ki no bunka*). Wooden chopsticks are the utensils of choice, and *geta* (wooden sandals) long lasting and one-sized. Historian Susan Hanley claims that since the Japanese are bound by their geography and, historically, foreign trading was severely prohibited, the Japanese people developed into a ‘resource-efficient culture’ (1997:53). Timber gained a position of prominence since it was at hand, but it was also a safer construction material in the event of natural disaster, while making houses easy to rebuild in the aftermath (*ibid*). This was the case during WW2 when Japanese forests were put under considerable strain by colonial expansion, the demands of the war effort and subsequent rebuilding of bombed-out cities. The Americans thereby organised the import of American and Philippine hardwoods to Japan to bolster timber supplies, and the Japanese government encouraged the use of alternative materials. Concrete and steel were used for building, and imported fossil fuel rather than wood fuel was to be used to run vehicles, cook, and heat homes (Matsushita 2015:92). Chemical fertilisers, meanwhile, facilitated the goals of the Green Revolution by replacing forest products that had supported agriculture for centuries (Takahashi et al. 2019).

Despite changing material needs, Japanese forestry was still deemed critical for rebuilding and future economic and environmental sustainability. A program of ‘improvement’ was consequently established by the US administration that went hand-in-hand with additional legislation that governed land access and property ownership. Experts recognised the ‘high potential value’ of the Ryūkyū forests

(1953:12), that with improvement, could provide a reliable source of capital to support the islands' economies. This programme of works was administered by the Ryukyu Forestry Bureau, initially consisting of American and Japanese workers, who set out to map forests, replant useful species, fell old growth, improve access, educate rangers and locals, build roads, police trespassers, establish boundaries and institute formal 'sales policies'. As had occurred in the Philippines, the American intervention was not applied only to virgin forest but to a forested landscape formed by intervention and bureaucratic control at the individual, community, prefectural and state level. Regenerative forestry had existed across Japan for centuries, without which, the country would have faced ecological disaster as the population boomed in the Tokugawa period (1603-1867).

Land and forest access in Japan and Amami

From the beginning to the close of the Tokugawa period, the population of Japan swelled from 18 million doubling to almost 35 million (Hanley 1968:622). Hanley claims that at this time, Edo – modern day Tokyo – was the largest city in the world (ibid). Historian Conrad Totman's *Green Archipelago* (1989) gives a detailed account of how the Japanese were able to support the needs of this burgeoning population through regulated forestry that predates American intervention by centuries, providing construction timber but also the 'grass, scrub brush and leaf fall' that fertilized crops (ibid:172-173). Totman explains how between 1600 and 1868 Japan moved from 'exploitation forestry' (clearing virgin timber), towards a 'regenerative forestry' that facilitated plantation silviculture, arising independently to similar German practices established during this time (1989:4-5). The aim was to both stabilize Japan's poor mountain soils that, because of deforestation, were plagued by erosion, flooding and landslides; to maintain peace between individuals with land 'rights'; and to productively maximise yields (ibid:174). From the 18th century the authorities at the government, village and household level encouraged the policing of enclosures and increased naturally seeded forest management. Simultaneously, the practice of hand-planting developed through the spread of silvicultural knowledge, leading to an extensive nursery and plantation system implemented by government and small-scale entrepreneurs. Despite reforestation being expensive and risky, these factors were offset using 'corvée duty' – compulsory village labour that was bartered for tax reductions, profit share, wages or imposed as

trespass penalties (ibid:136-137).

Since woodlands and forested areas were difficult to manage across large spaces, and nurturing necessary across a tree's lifetime, local authorities expanded use-rights and restrictions to lock villagers into social contracts of mutual responsibility. Japan was still living under feudalism until 1868, where all land belonged to the *han* (domain) and taxes paid in rice. As Totman explains: 'The rulers depended on village cooperation because village labor constituted their economic foundation' (ibid:150). Initially, shared usage agreements allowed villagers to collect forest products from the *Daimyō's* (lord's) land in addition to access to common and private woodlands (ibid:151-153). Totman claims however that multiple-use forestry was short lived, since the *Daimyō* could enclose land at will and landowners moved increasingly towards monoculture strands of coniferous *sugi* (Japanese Cedar) and *hinoki* (Japanese Cypress) that brought large profits, but lacked the biodiversity of the broadleaf forests that fertilized villager's fields. This regime meant that villagers were deprived of their 'customary use rights', and the variety of forestry products became restricted (ibid:178).

The need for village-*Daimyō* cooperation meant that an alternative system of *wariyama* (divided uplands) came into effect between the 14th and 20th centuries. Although the conditions of *wariyama* differed in every region, in Amami the limited land was controlled by the Ryūkyū Kingdom and taken on by the Shimazus – the powerful *Daimyō* of Satsuma *han* (current day Kagoshima on Kyūshū island) – when they took control of Amami in 1609 (Brown 2002:41). *Wariyama* was a system of land reallocation where 'house lots, paddies, upland fields, and mountain land' were redistributed every 3-5 years between adults (USCAR 1953:6). Historian Philip Brown says that 'once the land was apportioned between households, [residents] were able to dispose of their cultivation rights as they saw fit. They could buy, sell, rent, bequeath, or inherit these tenurial rights as well as work the land on their own' (2002:52). Additionally, villagers managed forests and also had access to commons (Brown 2002:42). This meant land was conceptualised as collectively belonging to the village, 'roughly comparable to holding shares of stock', (ibid) with no individual 'owning' the best land. Reallocation was anonymous and reassigned by village heads with an aim to restrict the gap between rich and poor – since if one household fell into debt the whole village would be accountable (Hagihara 1974:246).



Since Amami is mountainous and arable land scarce, as the population swelled land became highly divided, meaning residents struggled to pay taxes while producing sufficient sustenance. Added to this burden, the forced cropping and payment of tax in *kokuto* (black sugar)

(pictured) to the Shimazu was introduced in 1745. This 'Black Sugar Policy' (USCAR 1952:52) led to deforestation as trees made way for *sotetsu* plantations, whose poisonous seeds prevented starvation (see Chapter 4). While Amami was not a suitable climate for monoculture *sugi* and *hinoki*, an 18th century Ryūkyūan administrator was called upon to assist reforestation using locally specific silviculture practices. This knowledge was subsequently handed down generationally encouraging sustainable management of useful species (ibid). By 1820 however, the Shimazus instructed Amamians to drain rice paddies and replace them with sugarcane, increasing pressure on the land and forests (Hellyer 2009:95;127). At this time, islanders were banned from using money and trading among themselves – instead, they were forced to buy food and necessities from the *han* at 'inflated prices' (Hellyer 2009:127). Crop failure consequently led to debt and widespread famine meaning many residents became 'slaves' called *yanchu*. These were indentured labourers who were subsumed into the households of village heads who acted as officials on the behalf of the *han* (Hagihara 1974:248-9). One might therefore assume that *yanchu* also surrendered their *wariyama* rights, meaning households grew in people but also land. Amami was subject to early sugarcane monocropping based on colonial plantation models similar to those emerging in the Caribbean, resulting in profits that brought huge wealth and power to Satsuma at a cost to the island and workforce (Hellyer 2009:96). Haring writes that it was *kokuto* that funded the Shimazus overthrow of the Tokugawas to establish 'modern' Japan, starting the Meiji Restoration (1952:77).

In 1905 the 'Yanchu liberation decree' (Hagihara 1974:250) ended decades of Amamian slavery releasing residents into an emerging labour market with the

development of Japanese capitalism, while former slavers became what historian Shigeru Hagihara calls ‘parasitic landlords’ (ibid). Land reform had been underway since the Meiji Restoration to transform land ownership from a ‘feudalistic landlord’ to an ‘owner-farmer’ system by providing Post Office loans to individuals (Takigawa 1972). In Amami, the right to own private land was granted in 1869 (ibid). This was accompanied by the ‘Land Certificate System’ launching a record of title registration that pre-empted the Land Tax Reform of 1873. *Wariyama* was consequently outlawed since tax payments – previously paid in agricultural produce – were now tied to the value of a *specific* parcel of land (Brown 2002:46). In 1886, land on which residents had been given ‘domestic use rights’ (*iriai*) became the property of communities (Takigawa 1972:305), but from this time onwards, the government pushed for the transference of land under village jurisdiction to be managed by the Prefecture.⁷ Takahashi et al. explain that this move was important, since the productivity of former feudal lands and those converted to private ownership provided cash profit and tax revenue prior to industrialization to support public services, agricultural development, and ultimately the founding of the nation state (2018:1021-1022).

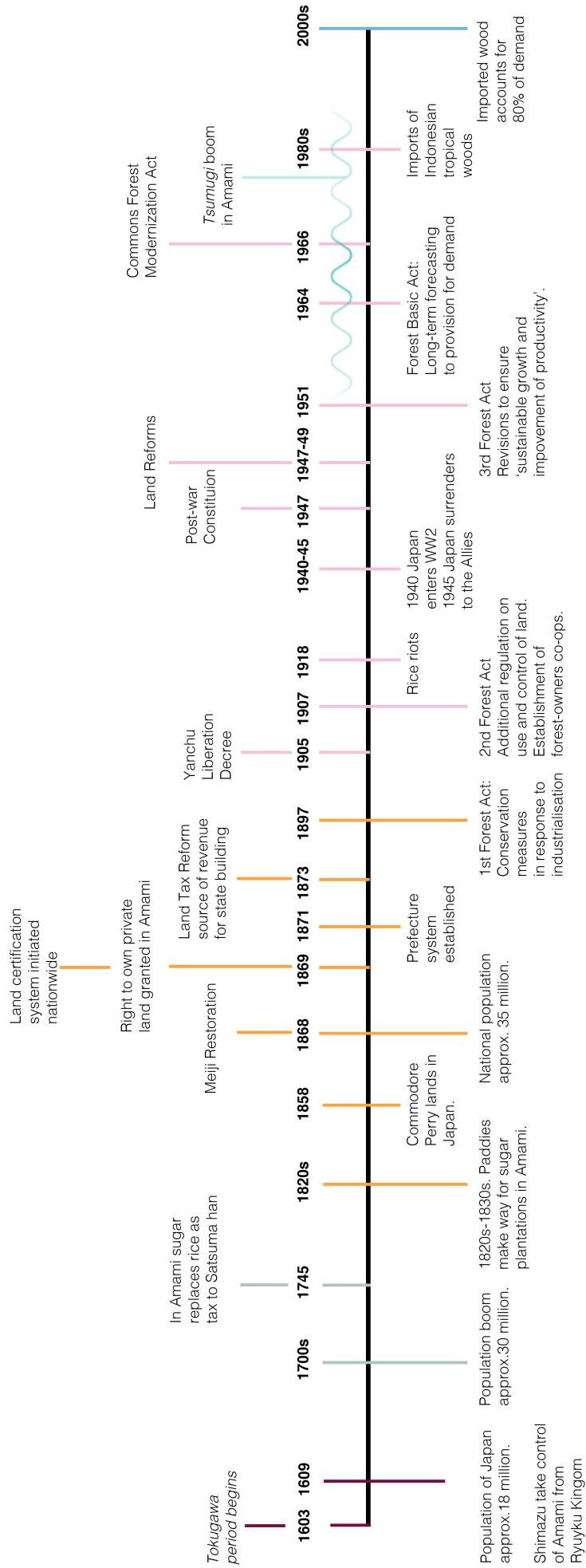
Despite efforts to dismantle the ‘parasitic landlord’ system, accumulated wealth expanded private ownership, while tenant-farmers sharecropped half of their harvest to landlords as rent. Sharecropping meant peasants frequently ran short of rice, forcing them to buy surplus at a market price that rose with the expansion of capitalism and the First World War (ibid). This led to the violent rice riots of 1918, involving as many as 10 million people and the establishment of unions to obtain ‘Land and Freedom’ and resolve tenancy disputes (Takigawa 1972:294). Landowners also came under pressure to pay taxes, however, leading to debt and mortgage foreclosures that, in a circular motion, led to a rise in tenancy (Kōdansha 2002). While feudalism led to abuses of power, as was seen through the exploitation of Amamians by the Shimazus, the legal framework that dismantled collective village ownership and established land-based taxation led to a breakdown of village unity. Previously, the village collectively paid taxes, distributing risk, while it was in the interests of all residents to care for the land. But the rise of private landownership and tenancy agreements put responsibility onto the individual, meaning one’s own land could be exploited for individual gain, even at the detriment to others.

⁷ Prefectures are units of governance based on the abolished *han* system.

What is apparent is that the founding of the nation state, that relied on land taxes, was accompanied by a stream of laws that were becoming increasingly centralised and nationalistic in character. Legal scholar Brenna Bhandar has shown how legal frameworks have dispossessed people (particularly indigenous people and people of colour) of their land using a justification based on the 'ideology of improvement'; where increased productivity of the land will lead to an improved society to benefit the 'greater good' (2018:8). This thinking can be traced back to the work of Enlightenment philosopher John Locke (1632-1704) who believed that if 'wastelands' are subject to ordering and improvement making them more productive, the enclosure and subsequent rights to access (and own) that land as property are legitimised, since such actions have a moral objective that will lead to an improved society (Prudham 2011:84-86). As Bhandar explains:

The evolution of modern property laws and justification for private property ownership were articulated through the attribution of value to the lives of those defined as having the capacity, will, and technology to appropriate, which in turn was contingent on prevailing concepts of race and racial difference (2018:4)

As Bhandar shows, this racialized view, instrumental to the formation of the settler colonial narrative, has become hegemonic in 'the intimate bond between state property and private property ownership' (2018:18) as a means to assert control over distant territories. Although these ideas have a history embedded in Western scholarship, after the Meiji Restoration they were increasingly imported into Japan as a means of 'modernization'. Whereas in the Tokugawa era a period of sustainable forestry was obtained through a combination of practices that were local in character to meet local needs, nationwide Forest Acts were established after 1897. This allowed the country as a unit to meet the demands of industrialisation, colonial expansion across East Asia and military action against China, Russia and later the Allied Forces.



Key dates in regard to Japanese land and forest rights and access



Referring back briefly to ornithologist Oliver Austin's introduction to the *Birds of Japan* (Chapter 4, p.178), he suggested that the Occupation brought innovations in land, education, labour and wildlife conservation instituting change to the 'customs and practices of centuries' (1953:284). Given the history of land ownership and resource management as I have presented it, one might disagree with the accusation of antiquatedness rooted in his words, since in many respects the Japanese were ahead of the curve on measures to implement resource sustainability. Nevertheless, Japanese practices did not conform to US ideals, so between 1947-49 the occupying Americans directed an overhaul of the Japanese legal system enacting laws for the protection of wildlife (see Chapter 4), devolved some power from central government (the 1947 Local Autonomy Law) and also 'demanded' the reform of agricultural land ownership.⁸ These reforms meant that landowners were only 'allowed to hold a maximum of 1.0 hectare [approximately 2.5 acres]' (Hagihara 1974:290), the

⁸ One might ask whether motivations behind American-led Land Reform were to avoid the threat of a communist inspired uprising. Haring, for example, addresses communist infiltration frequently in his report.

remainder confiscated by the government and sold to tenant-farmers in a move that expanded individual property ownership.⁹ The push for these reforms aligned with the writing of the 1947 Japanese Constitution that was penned by American authors based on ‘the Western theory of natural rights,’ that found their origins in Locke’s philosophy (Repeta and Jones 2015:314). Locke believed ‘men are by nature free and equal and that all have rights, such as the rights to life, liberty and property’ – beliefs embedded in the American Declaration of Independence (ibid:314-315). It has been noted that many of Locke’s ideas stemmed from a desire to free individuals from the grip of ‘monarchic authority’, since he believed ‘all humans were naturally equal regardless of their position in society’ (Toyoda 2017:184-5). Freedom therefore lay in the right to own property, so that an individual could control their own destiny. The writing of the constitution was thus a highly symbolic act that sought to write pacification into law (Article 9), and to bestow ‘freedom’ on the Japanese people who had been living under a totalitarian regime. The land reforms might be framed as key to upholding Article 13, which reads: ‘all citizens shall be respected as individuals. Their rights to life, liberty, and the pursuits of happiness ... shall be the supreme consideration in legislation and in other governmental affairs’ – but with the added caveat: ‘to the extent that it does not interfere with public welfare’ (Repeta and Jones 2015:315).¹⁰

Interestingly, Takigawa states that ‘the liberation of lands [through reform] was mostly limited to agricultural land, leaving forest land almost untouched’ (1972:290). This statement suggests that the rights of an individual to access communal forests were not considered worthy of protection, rather trees were seen as a resource that should come under state or commercial control to benefit the ‘greater good’. What therefore occurred in 1951 was the amendment of the 1907 *Forest Act* to institute ‘compulsory [silviculture] regulations’ across the whole of Japan that ecologist Koji Matsushita explains were ‘exceptional’, ‘because there had been no obligation to plant

⁹ Hagihara claims reforms failed in Amami, since parasitic landlords either registered land exceeding 1.0 hectare in a family member’s name, or signed land over to tenants with unrealistic loan conditions knowing they would default (1974:259).

¹⁰ The caveat is not dissimilar to that of ‘eminent domain’ - described as ‘the power of the government to take private property and convert it into public use’ a contradiction found in the American Constitution’s Fifth amendment. Legal Information Institute. ‘Eminent Domain Overview’, n.d. *Cornell Law School website*.

outside the restricted forests in the Japanese system' prior to this time (2015:103).¹¹ Consequently, replanting and forest management was implemented in state forests, but state regulations would be enforced in public and private forests too. While property laws diverge in every country, this example from post-war Japan demonstrates how rights and access to land and natural resources have become increasingly uniform, as geopolitical conflicts and global markets impact the lives of ordinary people (Richards 2002:5). Bhandar confers that property laws are becoming increasingly hegemonic:

Laws of property...reflect and consolidate language, ways of seeing, and modes of subjectivity that render indigenous and colonized populations as outside history, lacking the requisite cultural practices, habits of thought, and economic organization to be considered sovereign, economic subjects (2018:3).

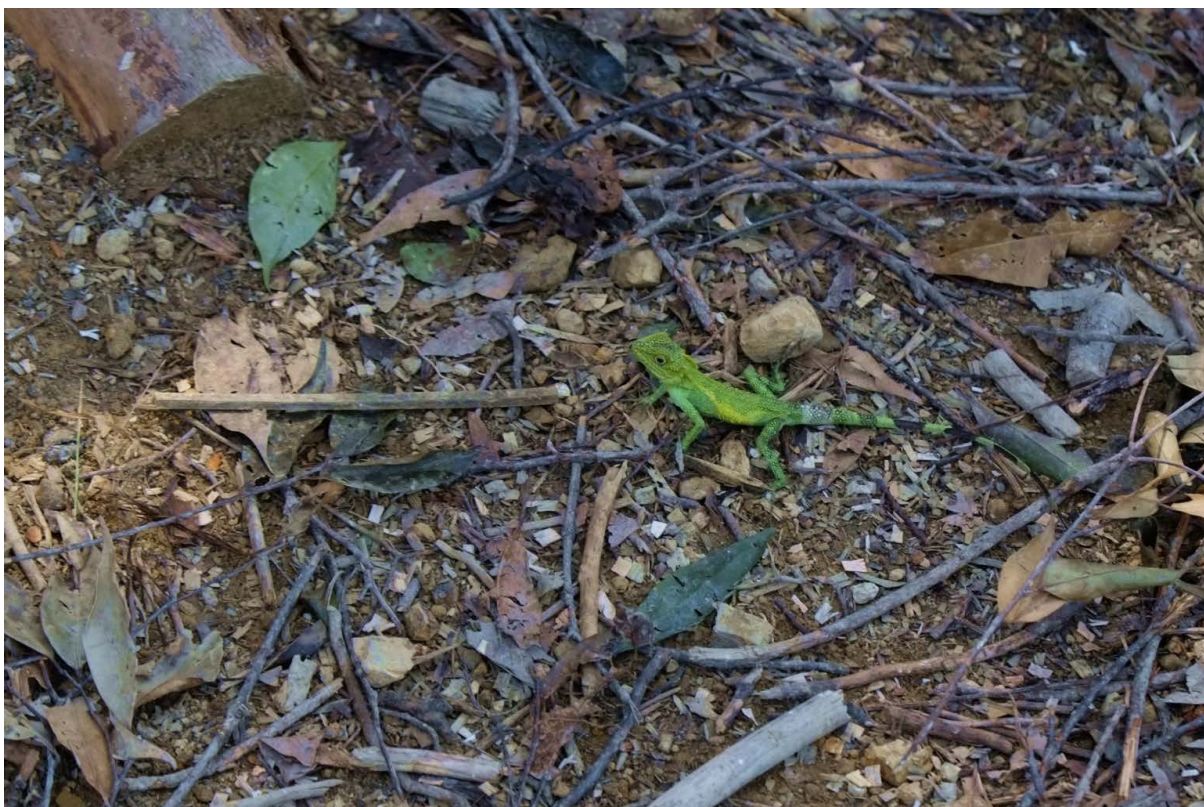
Failure to understand alternative 'ways of seeing' in the Ryūkyūs are reflected in Bulletin No.2, where an 'expert consultant' writes:

The present forest law divides responsibility between the central government and the prefectural governors and fails to provide competent systems of inspection and control. The disadvantages are serious. Divided responsibility prevents the creation of a unified national program. It subjects the application of the law to 46 interpretations ... it places in the hands of locally-elected officials the task of regulating the acts of their own electors in the interest of public good. Japan cannot hope for effective administration of a forest law unless full responsibility for carrying out its provisions is placed upon the central government (1953:36).

While the Land Reforms were designed to redistribute land wealth, they failed to understand the role of the village in Japan as an independent, bureaucratic unit that conceptualised the landscape – the mountains, forests, village and sea – holistically as part of the community. Historian John Richards states 'property rights over land [or any 'thing'] are a social construct', but they are also 'a crucial variable in the life and identity of a community of any size' (1997:1). The Lockean ideals that were adopted by the Americans and consequently the Japanese government saw freedom in the rights of the individual to own property. The Land Reforms set out to tie individuals

¹¹ The 1897 Forest Act was enacted to conserve and protect Japanese forests in response to industrialisation. The 1907 Act built on these foundations to regulate 'use and control of land and establish forest owner's cooperatives' (FAO 2010).

to specific parcels of land and designate the forests as a timber facility, not a site essential to the health and wellbeing of the village. Fundamental here is the difference between the American and Japanese conceptions of individual rights, as was demonstrated in the writing of the 1947 Constitution. While in American ideology the rights to 'life, liberty, and property' are inherent in the freedom granted to the individual, in the Japanese context 'life, liberty and happiness' can be achieved by the individual, but, scholars such as John Clammer would argue, only when supported by the structure of the community (1995:109). Clammer claims that since the Japanese are taught from childhood that 'social power is dispersed', the individual (in theory) will be a co-operative 'subject who can be a "we" as well as "I"' (1995:111). As he explains, 'individuality and individualism are not the same, and individualism is not a necessary condition of individuality. Community also need not mean collectivism, since there are many ways to being community-orientated' (ibid:110). The co-operative nature of Japanese society has of course been tarnished by the negative associations of 'groupism' and it is certainly a condition not without conflict. But while the 'group' from the outside might be imagined as a powerful (even threatening) social unit, groupism also describes complex sociality, where the system gains its strength from the relations that exist between individuals (ibid:102).



The history of *wariyama* demonstrates this well, as in some areas it was still occurring after the Land Reforms of 1947-49, despite being ‘illegal in principle’ (Brown 2002:46). Brown explains that many villages who felt the system functioned well ignored or manipulated the law in order to maintain it (ibid). One might imagine, in an ideal scenario, that a practice such as *wariyama* encourages individuals to take responsibility for the landscape and its contents to maintain social order and village health; but also for more selfish reasons, since uncertainty about the future and the land one will at some time be designated might promote sustaining processes in the present. Residents have been concerned with preserving the health and productivity of the landscape to meet both their immediate material needs, and those of future generations. Although *wariyama* encountered problems – overpopulation meaning land was in short supply, for example – it is helpful to consider the possibilities of alternative models of land stewardship to that of private ownership – the model that has come to dominate globally.

It might be suggested that in the Ryūkyūan forests the Americans sought a ‘spatiotemporal fix’, Marxist geographer David Harvey’s term that ‘refers to many different forms of spatial reorganization and geographical expansion’ that seek to manage the problems of ‘overaccumulation’ (Jessop 2006:146). As Harvey explains, ‘crisis-tendencies’ such as overaccumulation of capital and labour can be overcome by using space and time as a method of redistribution, for example: by seeking new markets in new territories, addressing underconsumption in a given area, developing new manufacturing facilities, expanding the proletariat, and establishing new material reserves through geographic exploitation and dispossession. Monoculture forestry regulates nature since the landscape can be controlled and cut on rotation within a fixed period of space and time that, with management, can be returned to repeatedly (Prudham 2011). The example of US colonialism in the Philippines, where material reserves were established to take pressure off American forests allowing them to recover, is case in point. This fix allowed the US to continue to provide timber for a global commodity market, including to Japan after the war. Taking control of forestry in the Ryūkyūs might have been seen as a way to solve the problems of ‘overaccumulation’ of capital, trees growing in inaccessible mountains that were overdue harvesting, while providing much needed jobs for local people and those returning from military service and stemming the flow of labour to the cities. Harvey’s use of the term ‘fix’ is important since the word means to fasten in place *and*

problem solve, a double meaning that reveals both the ‘fixity’ and ‘mobility’ of capital (2001:25). For capitalism to function it needs to be fixed in a territory or economic unit but it also needs to maintain mobility allowing capital and labour to move ‘beyond the boundaries of the space or region in which it was generated’ (Jessop 2006:147). Improving forest infrastructure created jobs and uprooted capital in the immediate, but replanting trees and restricting access to overcut areas fixed capital in the Amamian landscape for future generations.

In 1962 compulsory forestry management measures across Japan instituted under the Americans were terminated, as initial demand for materials had been met and replanting complete (Takahashi et al. 2019). In 1964 the Forest Basic Act was passed to ensure that the government engaged in long-term forecasting to provide for future timber demand (FAO 2010). This led the Japanese government to pass the ‘Common Forests Modernization Act’ in 1966 that ecologists Takahashi et al. argue was a ‘major state intervention’ (2019:1022) in the laws that governed *iriai* or commons ownership of forest land. Policy advisors claimed that commons were underutilized and not conducive to profit-driven exploitation. While the commons were already under the jurisdiction of the prefecture, the changes meant that prefectural staff could make decisions regarding this land, removing the requirement of consensus amongst those with rights. Takahashi et al. claim that this led to ‘30 to 40% of 1.6 million ha common forests’ documented from 1960 being transferred to ‘modern types of ownership such as individual private ownership, forest producers co-operatives or other types, such as non-profit associations’ (ibid:1022). This was added to around 35.5% of Japanese forest land that had already been enclosed, totalling 60% plus (ibid).¹² As rural areas in Japan were by the 1960s becoming increasingly depopulated, this may have been seen as a way to tackle the problems of overaccumulation of capital and labour. Yet what the government did not foresee were the changing market conditions and the instability caused by the mobility of capitalism.

Anthropologist Shiho Satsuka writes: ‘in exchange for a military coalition with the US, Japan was able to concentrate on economic development’ making it ‘a poster child for capitalist development in Asia’ (2014:91). As previously noted after WW2, the public were encouraged to use alternative materials from local forest products, but

¹² An FAO document claims forest ownership in Japan is divided as follows: 30% National forests, 60% private forests, 10% public forests (2010:8).



industrialisation and the expansion of market economies that led to urbanisation also degraded forestry and agriculture, increasing the nation's dependency on imported foods, timber and fuel (ibid). As a result, environmental

historian Thomas Cox states that by the early 1970s *gaizai* (foreign timber) accounted for 60% of the softwood market (1987:35). These imports came from declining Philippine forests and Oregon, USA, but by the 1970s environmental activists disrupted this trade (Tsing 2015:210). This led Japanese trading companies to make deals with the corrupt Indonesian New Order government to harvest tropical rainforests (Tsing 2005:14-16). Tsing, whose earlier work explored Indonesian deforestation, states that by the 1980s Indonesian imports led to the 'under selling' of 'Japanese manufacturers despite protective tariffs' (2005:16). While the costs of imports were low, the Japanese industry also suffered from destructive pine nematodes (photo above) that were brought in with imported US timber and a declining workforce due to out-migration from rural areas, and rising wages for those left willing to do the work (Cox 1987:37). As Harvey would claim, 'spatiotemporal fixes' are only helpful as long as they are profitable and as Cox explains, private owners either planted *sugi* and *hinoki*, valuable woods that were used for shrine construction, or else they neglected the land letting it return to scrub, since 'Owning forestland...was not worth the trouble' (1987:40). The Japanese example demonstrates what Harvey suggests is:

one of the central contradictions of capital: that it has to build a fixed space (or "landscape") necessary for its own functioning at a certain point in its history only to have to destroy that space (and devalue much of the capital invested therein) at a later point in order to make way for a new "spatial fix" (openings for fresh accumulation in new spaces and territories) at a later point in its history (2001:25).

By adjusting the laws that governed the commons, the authorities believed that private or corporate ownership that prioritised profit would lead to increased productivity making Japanese timber competitive in the face of increasing imports. But Takahashi et al. argue that policy makers underestimated the ability of village groups to 'be able to handle forest tending activities' themselves (ibid:1029-1032). This has resulted in forests under village control being in better health today than those placed in private hands, despite the potential for village conflict over management and profits:

The key factors for their success are said to be historically well-organized management scheme and sustaining controlling power over the residents (Matsubara, 1989). Traditional practices and mentality may be well suited for tending forests in the long run. On the other hand, modernized forest holdings may be able to handle better drastic decisions such as forest harvesting and timber sales than conservative customary holdings by simplifying decision-making processes (ibid).

John Knight's research with upland forest families in Kii Peninsula provides an ethnographic guide to the changes that occurred in forestry between the 1950s and the 1990s. While he asserts that forestry had become dominated by an economic narrative, he says 'a rich set of ideas, beliefs and associations' are also attached to trees (1998:197). Despite mixed broadleaf forests having been largely replaced by monoculture varieties, he describes how families with a strong history in forestry consider the practice analogous to childrearing (ibid:200). Care is bestowed so that the trees may have a second life in a building or household furniture, while neglected trees had little hope of a future. Anthropologist Maurice Bloch says that although there are 'historical specificities' in the way that societies respond to trees, there also exist 'cross-cultural' regularities (1998:43), from ties of kinship and ancestry, to analogies with human bodies and life-giving properties. Bloch's ethnography with the Zafimaniry of Madagascar records a similar intimate relationship with trees as that observed in Japan, based on a material dependence and a conception of trees as lifeforms whose heartwood represents their 'bones'. But unlike humans, trees are revered for their long lifespans, the fact that their bones continue to grow whereas humans shrink, their geographic fixity and transformative material properties (ibid:42). As practitioners of a 'life taking occupation', foresters in Japan hold a Buddhist ritual called '*mokurei kuyō*' during felling to appease tree spirits and avoid untold dangers, similarly underlining the vitality of trees (ibid:204-205). Knight

are often ‘dark and monotonous places’ (Tsing 2015:211) that lack biodiversity, and that produce poor quality timber that is too expensive to harvest and remain competitive in the face of imports. Local communities are reluctant to engage with these spaces since pollens from monoculture *sugi* and *hinoki* on the mainland have tendency to cause bad hay fever and respiratory issues. Industrial products have replaced the use of forest variants in Amami, and aside from those experienced in foraging such as Kazu-san and the Shachō, local residents tend to avoid forests because of the threat of *habu*.

Today, areas of Amamian forests still harvested for timber are largely managed privately, with the predominant use of the wood being in the production of industrial paper, suggesting that the timber is considered relatively low grade (on account of weather and insect damage) and fetches a low market price (Cox 1987:48). One might suspect that conditions today are not what the Americans envisaged when they laid out plans for a Ryūkyūan forestry industry, who’s carefully managed and ordered forests would provide trees for pulp but also commercial timber to meet local and national demand. After the Meiji Restoration the expansion of colonialism, capitalism and industrialization put significant strain on Japanese resources leading to a second period of exploitative forestry. One might ask how post-war forestry plans differed to those regenerative practices carried out during the Tokugawa period, since one might argue that the goals were the same – to provide a sustainable source of timber so that a region might be self-sufficient. But one must also ask why Amamian forests that are crudely cleared, no matter the species, have been devalued to such an extent? I suggest that answers to these questions can be framed by three different but interlinking factors: firstly, different conceptions of scale and changing market conditions; secondly, the enclosure of forests and the rise of privatisation; and lastly, the resulting breakdown of reciprocity between humans and the natural environment.

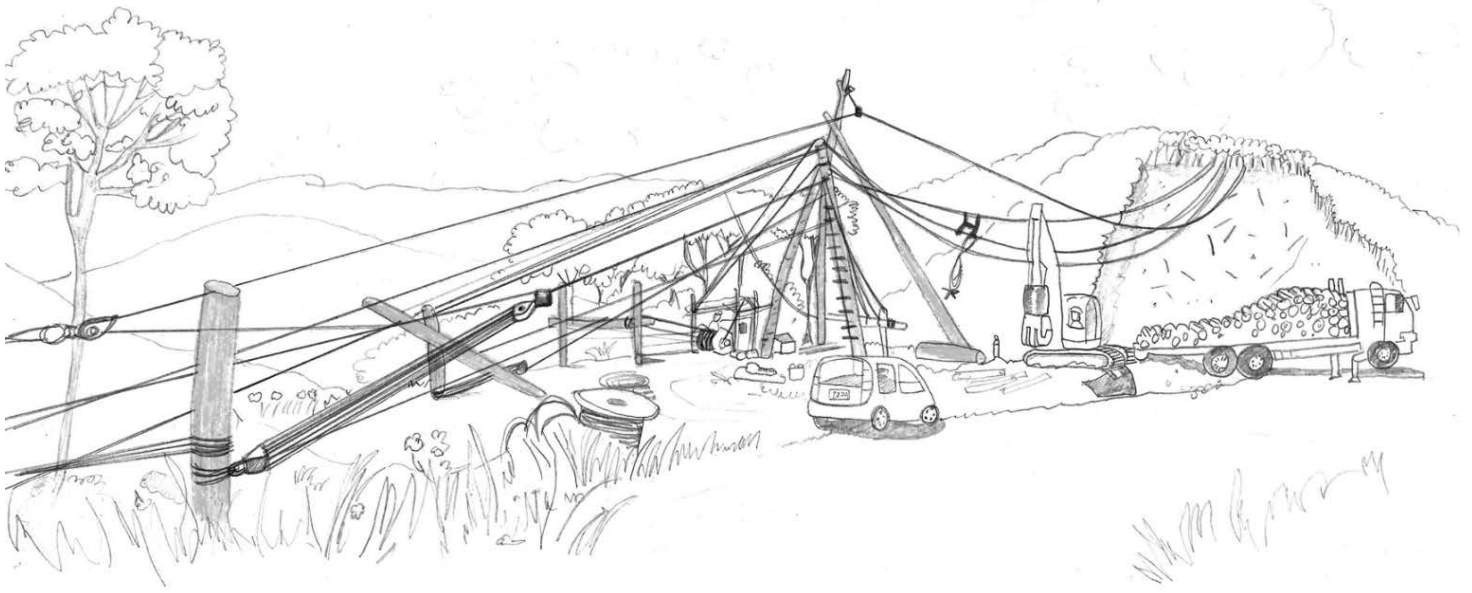
After WW2 both forestry and *Oshima tsumugi* were highlighted as areas for innovation and investment by the occupying Americans. While plans laid in the post-war period for a Ryūkyū timber industry had withered by the 1970s (thankfully leaving many virgin and old-growth forests intact – now earmarked for WNH status), the nostalgia for traditional kimono that swept across the country meant that *Oshima tsumugi* could employ 20,000 islanders at peak production in 1972. Because the state sought to maintain ‘structured coherence’, a region’s ‘capacity to impose relatively

firm boundaries on otherwise porous and unstable geographical edges' (Jessop 2006:154) capital was fixed in Amami not through forestry but by the boundaries of tradition. While *techigi* is a waste product of paper production, it is a material essential for *dorozome* that dyes the yarn of luxurious *Oshima tsumugi*. Significantly, the *tsumugi* industry in Amami in the 1970s was able to thrive because it could take advantage of the cheapness of forest products such as *techigi*, since local forests had been devalued economically and their products removed from everyday circulation.

Techigi: waste and use



When *techigi* is available the woodsmen phone the workshop, and shortly after someone will pick it up. On returning home from swimming one morning I had a missed call from Akiyo asking me to come to Kanai Kougei. Shachō was at the doctor, but when he returned he'd leave to pick up the *techigi*. Kazuko and I followed him on the 1.5-hour drive to Uken-son. I commented that Shachō was a steady driver. She laughed and said 'you think so?!' Climbing through the mountains, we took the turn off to Uken village, and then a sharp left on a hairpin bend driving for several miles down a potholed, single track road. A great brown scar within a patchwork blanket of variously aged forestry signalled our arrival.



The felling site looked medieval in character; this was likely due to lack of investment but also because the remote location with poorly maintained roads resisted more advanced technology. A tripod hoist made from huge logs utilised a pulley of steel wires attached to a gasoline-fuelled motor reel, dragging trees off the mountain. Two men over fifty welcomed us, their deep sun-lined skin making their age difficult to determine. As they loaded up the *keitōra* (mini-truck) beyond its legal weight, the Shachō encouraged us to ask questions. The woodsmen were happy to chat, so with Kazuko translating I confirmed that the forest was cut on rotation every forty years for paper pulp, the majority being *shii* (Okinawan chestnut), *sarusuberi* (crepe myrtle), and *matsu* (pine). I was not able to establish who owns this land, only that it was a 'private forest', but relative uniformity and limited species suggests that the area might have been subject to post-war silviculture. When there is *techigi*, the woodsmen sell them for cash on the side, the amount likely being inconsequential to the landowners. If the craftspeople collect it themselves it costs 10,000JPY (about 70GBP) for one truck load, equivalent to 600kg. If they have it delivered it will cost three times as much. Previously, the dyers valued the roots of the tree most highly, as this is where the tannins are most concentrated. But today the roots are left so that the trees will regrow, in theory making them a sustainable resource. With so few dyeing workshops in frequent operation (five in total, only two with regular work), there was little concern about this resource depleting.



Techigi is an interesting case study since it is a tree still used today by local industry, but that is now acquired via non-commercial means. It is plucked from a commercial harvest as ‘waste’, but its value still flows into the local economy of Amami through informal means that landowners seem to turn a blind eye to. What it highlights, albeit on a small scale, are the workings of supply-chain capitalism that are necessary in order to create value where there is none. As Amamian wood is used for industrial paper it must fetch a low market price. In order for a landowner to profit from its sale, the cost of its extraction – technology and labour power – must also be kept low. These circumstances recall Tsing’s work on the informal economies of matsutake mushroom supply chains where she explains: ‘Labor and natural resources are costs to be reduced by finding someone willing to take care of these issues for less. This generally means finding workers who are willing to do the job for reasons other than wage-and-benefits packages’ (2013:25). Tsing’s ethnographic example is with mushroom pickers in the United States living on the edge of society. These are Thai and Vietnamese migrants, and Vietnam veterans who lack access to social care, avoid taxes and tend to forage on federal and private property – often without a permit, risking considerable fines. Tsing states that these pickers ‘act as if the forest was an extensive commons ... [doing] their best to ignore questions of property’ (2015:78). One might argue that Amamians too are ‘haunted’ by the concept of property since it is unclear as to who owns each parcel of land, where boundaries begin and end, while commons ownership is still in living memory. All of the Amamian families that I worked with owned their house lots but also had access to citrus groves and/or parcels of forested land in the mountains, being unsure of how it came into their family’s possession. Although it might not be immediately apparent, *Oshima tsumugi*, one of

まつたけ 松茸
Matsutake. Bought from a
small vegetable store near the clinic
for myself, Kazuko & Eriko.
Grilled on frame of gas stove,
eaten with salt and pepper.
17.11.17



Japan's most luxurious textiles, relies on this ambiguous property regime where common, private and public property coalesce. As Tsing says:

Elite firms turn to supply chains to ... cut the costs of managing natural resources by allowing poorly regulated suppliers to steal, salvage, or forage raw materials ... Suppliers lower their costs by taking advantage of the privatization of what once were public or common domains; taking raw materials from such domains is a kind of stealing. Such arrangements raise urgent questions about private property as a precondition of capitalist commodities. What does it take to turn stolen, salvaged, and foraged materials into commodity value? (ibid:26).

The need for *techigi* happens early in the *tsumugi* supply chain, and Yukihiro-san explained the Tsumugi Union are unlikely to interfere while this informal system functions effectively. As he told me:

I do wonder if we could cover [*techigi* acquisition] more industrially. But the land where we harvest trees from are privately owned mountains. Thus, I cannot say this out loud ... It would be so much easier for the craftsmen to do their work if [the Tsumugi Union] supported it; the tree is used for *tsumugi* after all. [The craftsmen] won't lose their time dealing with such issues – their full-time job is only to dye. *Techigi* is not owned by the dyers. They are Amami's. It would be good for anyone to cut and take it.



During the *tsumugi* boom obtaining *techigi* was covered ‘more industrially’. Trees were felled and delivered to a chipping store whose job it was to prepare the wood and supply Amami’s sixty dyeing workshops. In the 1980s, when the Shachō opened Kanai Kougei, *tsumugi* production was already in decline as were the chipping stores. The Shachō consequently purchased the same chipping machine that he uses today at a cost of almost a million Yen (around 7000GBP – a significant investment at that time). This machine chips 600kg of *techigi* that is then loaded into a cage and lowered into a *kama* (cauldron) containing ground water and ash from the fire, an alkali that raises the pH to draw out tannins (image 1 overleaf). The tannins dissolve in water from 80°C, and it takes significant time to raise and maintain the water’s temperature, that is heated via a huge furnace fuelled by spent wood chips (2). After being boiled for two days, the cage containing the woodchips is removed (3).¹³ Once the liquid has cooled it is transferred to a number of vast orange barrels where it is left to mature for a week (4). During this time it gains its distinctive, pungent smell and the right viscosity, indicating that it is ready to be used for dyeing (5). Tsing states that ‘raw materials must be translated into private, and thus alienable, commodities’ (2013:26) and extracting trees from their ecosystem, chopping, boiling

¹³ Maiko-san, the Shachō’s daughter told me that when she and her siblings were children the Shachō would tell them ‘every hour just go and check the *kama* and put some water in if its boiling hard!’

and burning the wood chips allows for this to happen. But translating a ‘stolen, salvaged, and foraged’ (ibid) resource into a material central to generating a product with commodity value also requires the social relations that remove the material from the forest floor; the truck being loaded beyond its legal weight that transports it to the workshop; and the low waged, or devalued labour of the Kanai’s to check on the *kama* outside of working hours.¹⁴



¹⁴ See appendix for details dyeing instructions and workshop layout.

Since the 1980s, *Oshima tsumugi* has been significantly devalued meaning the infrastructure and capital investment that supported production during the boom has relocated. With the disappearance of a formal industry-wide system for extracting *techigi*, the ability to access it today relies on informal economies and personal relationships. *Techigi* suppliers build connections with specific dye houses so that each company can maintain its supply without competition for resources. This builds obligation into the system, as seen when Kanai Kougei purchased a ‘stolen’ tree from Tanaka-san, who might otherwise have taken it elsewhere. Using social relations as a pathway, such obligation and commitment circumvents the competitiveness of the open labour market, and the regulation of labour defined by the state. Tanaka-san seemed to be one of many established residents and newcomers to Amami living off ‘free’ natural, seasonal resources; foraging for shellfish or seaweed at low tide, collecting plants and insects that might be rare or endangered for the black market, and (legitimately) hunting *habu* for the local authorities. But many of these activities are embedded with personal risk, highlighting the precarity of this form of labour and the potential exploitation of an undocumented workforce. Tanaka-san, for example, died from a heart attack when hunting octopus; a risky job for someone who I guessed was in his 70s. His death also identified a weakness in the supply chain – that there are a limited number of people who are willing to do this form of work. I questioned Kazu-san on the spiky subject of the availability of *techigi*. He answered:

Right now, with regard to this workshop, there is not enough *techigi*. Maybe it would be enough if we were only doing *Oshima tsumugi* ... I mean, there are plenty of trees themselves but it’s because it’s not easy to cut them down. The problem is whether there are enough woodcutters ... Sometimes people from the workshop have to do the woodcutting ourselves.

Uncertainty therefore resides not in the availability of trees but in the ability to obtain them. What will happen when there are no longer any woodcutters? Or if the form of paper production that underpins their official employment is deemed financially unsustainable? *Techigi* will be fixed in the landscape as private property and access restricted, forcing dyers to go to more extreme lengths to obtain the resources that they need. As Tsing explains:

Through incorporating non-capitalist social relations, capitalism achieves its creative strength as a system. Such incorporation, however, is not something finished and

under control ... it is an everyday problem. Capitalism thrives from it—but it also makes capitalism weak (2013:38).

It is easy to comprehend why woodcutting was an undesirable profession – the labour is demanding, the wages are low and the environmental working conditions oppressive. When I drove with Kazuko and the Shachō to collect the *techigi* the logs were ready cut. But from another site, the Shachō, Kazu-san and Takahito-san were indeed felling trees themselves. Consequently, the availability of *techigi* had become a contentious subject between the *tsumugi* and apparel dyers, since the apparel side of the business used a lot of *techigi*. Craft production is assumed to be the opposite of what Marx imagined as alienated labour: the estrangement of wage-labourers from the products of labour, the activity of production, material knowledge and sociality with one's colleagues (Osborne 2005:45-55). But when *techigi* would arrive in the back of a vehicle as a commodity its life as a tree was erased – so too the ecosystem from which it was gathered and the necessary labour that led it to the workshop. Being a 'mobile asset' (Tsing 2015:6) sourced from 'improved' land, the younger craftspeople had experienced alienation – at least from craft materials. It was not until the younger dyers collected the trees themselves that they better understood Kazu-san's perspective, so tried to reduce the quantity of *techigi* that they used. Kazuko and Takahito-san both told me that when they went to the mountain for first time they experienced *mottainai* (what a waste). Takahito-san explained:

Recently, we've started having the experience of going and cutting the *techigi*. When you do all that you realize even more – "Wow, this is really tough." And you start to want to really scrimp with things like washing with the *ni-ban* (no. 2 liquid) [a combination of fresh and recycled *techigi*]. In that sense I feel like I've realized the real worth of the *techigi*.

While the spiritual world and snakes have generated a taboo around entering the forest, the legal apparatus of privatization has converted the forest into a place that excludes people, criminalizing the taking of resources previously considered 'public property' (ibid:79). Enclosure has resulted in a loss of knowledge and responsibility for the history, use and care attributed to the 207 tree species listed in the US army report, but also the flora and fauna that constitute the forest ecosystem.

Fukugi: re-establishing access and knowledge



Fukugi (which has the rarely used Amamian name *kuwagibagi*) is thought to have been introduced to the Ryūkyū islands about 600 years ago from South East Asia (USCAR 1952:21). It is incredibly sturdy with dense foliage so is planted around houses and villages to shade them from strong sunlight, increase fire resistance and as wind breaks from horizontal, salty typhoon winds. The Japanese kanji (福木) translates as ‘lucky tree’, a name which might be attributed to these protective qualities. In Amami, Kanai Kougei use *fukugi* as a dyestuff to create a bright lemon yellow that has proved popular with fashion designers. But the tree is far more ubiquitous in Okinawa where it was historically used to create the golden yellow of the gods worn by high ranking officials of the Ryūkyū Kingdom. This yellow can still be recognised in *bingata*, a multi-coloured, traditional Okinawan textile that features pictorial patterns of daily life and nature created using stencils and a rice-resist paste. Sumiko Sarashima (2013), whose fieldwork was carried out with Okinawan *bingata* craftsmen, claims that since the post-war period *fukugi* has been replaced by chemical dyes and imported natural pigments (ibid:165) as the colour it produces today differs

from what was achievable in the past.¹⁵ She claims that craftsmen also prefer the consistency offered by chemical dyes, confirmed by her participant Tamahana-san:



14 籬に牡丹藤菊燕文様衣裳
Kimono with design of peonies, wisteria, chrysanthemums, sparrows and bamboo fences.

A *bingata* kimono dyed with *fukugi* (Yoshioka 1993:16)

...we stopped using some local materials such as Fukugi ... that features in the bright yellow background of *Bingata* in the past. These days, maybe because of climate change, the Fukugi tree no longer makes an attractive colour as it did before, so we stopped using it. It's a shame. It is impossible to create the same colour as we can see in some artifacts from the old times in museums. It is even hard to repeatedly produce our own products exactly the same every time, since we are human and all our works are done by hand. However we need to produce something good, and which is appreciated as *Bingata*, for present people by doing what we can do now (2013:165).

Rather than an 'attractive' colour, the vibrant shade that Kanai Kougei produces might indeed be read as gaudy on a *bingata* ground, yet it was not until I visited Okinawa that I began to understand that the switch from local to imported dyes for *bingata* production was not necessarily only about convenience. Alternatively, it could be interpreted as the result of a contested history in regard to the dispossession of knowledge and resources. In July 2018 I visited Okinawa with Yukihiro-san, Akiyo and Kazuko to assist with the harvest and oxidation of Yukihiro-san's friends

¹⁵ Sarashima states that yellow is rarely used as a background in contemporary *bingata* but the *fukugi* shade used in patterning has been replaced with chemical dye, or pigment of 'orpiment (a monoclinic arsenic sulphide mineral)' (2013:166)

Ryūkyū ai (see Chapter 2). As part of our trip, a natural dye *bingata* workshop had been organised, yet these plans were changed before we arrived since it became apparent that the *bingata* craftspeople were only now learning how they might use natural dyes and pigments themselves – the know-how having been neglected since the introduction of chemical dyes in the 20th century. With this realisation I set out to understand how this loss of knowledge had occurred.



Spotting some huge, old *fukugi* trees near to the indigo field, I was told that their bark produced a shade of brown. It might therefore be assumed that craftsmen previously used older trees than were available to Kanai Kougei. Yet rather than the age of the trees, the availability of any *fukugi* tree might have been an issue in

the post-war period. Many may have been destroyed during the 1945 Battle of Okinawa, a bombing campaign and battle so intense it was named an ‘iron storm’ (*Tetsu no bōfū*) killing 122,230 civilians – 60% of the population (Arashiro 1998:214 in Hendrickx 2007:62). Even today, *bingata* craftspeople use drilled out bullets as piping funnels to apply rice resist to fabric, highlighting the sheer quantity of spent rounds. In the US Special Bulletins there is evidence to suggest that many *fukugi* trees that are tall, straight, and hard and used for ‘posts, beams and boards’ (1952:21) were removed from circulation, since it is stated that Okinawa’s forests ‘received the full brunt of cutting for reconstruction and to meet the needs of a population swollen by repatriation’ (1953:22).¹⁶ The war did not only dispossess craftspeople of *fukugi*, non-fruiting banana trees used to create distinctive Okinawan *bashō-fu* (banana fibre) textiles were also burnt by the US military with the excuse that they harboured mosquitos. Local bananas remain an important and prized food source and the rumour I heard was that all bananas were burnt to make the population suffer – the Ryūkyūs being the only site of direct military action on Japanese soil (Smith 1998:282). This was relayed by members of the Taira family, the only company still

¹⁶ Migrant labour and servicemen were repatriated from the mainland or colonies.

producing *bashō-fu* in Okinawa today. This bitterness towards the US Military reflects a wider sentiment felt island-wide where uniformed personnel, American signage, armoured vehicles and the terrible din of fighter jets provide a neo-colonial backdrop.¹⁷

Okinawa has been subject to the dispossession of its land and resources since the Meiji state incorporated the Ryūkyū kingdom into Japan in 1879 to establish Okinawa Prefecture (Brandt 2007:207). Historian Kim Brandt states that from this moment onwards, Okinawans in the South and Japan's indigenous Ainu of Hokkaido in the North were increasingly assimilated into the state.¹⁸ From the 1930s growing global unrest saw an increase of interest in the Ryūkyūs by the government and military as a 'strategic peripheral zone' (Brandt 2007:209). Yet while the speaking of local dialect or the observation of local customs were seen as 'punishable acts of subversion' (Smith 1998:281), interest in Okinawan material culture by Japan's elite who had established the *Mingei* movement flourished. Brandt explains that *Mingei* brought all of Japan's regional craft under one umbrella creating a national aesthetic that reflected the cultural vibrancy of the *naichi* (inner territory); a concept supported by the nationalist government (ibid:210). But being of the *gaichi* (outer territory), Okinawa's culture and people were delineated as an ancient variant of Japanese civilization whose 'difference' left them open to subjugation, and their properties to acquisition and improvement (ibid:207-222). Natural resources and coerced labour but also 'exotic' material culture from the outer territories (Okinawa, Hokkaido, Taiwan, Korea, Manchuria, China) were seen as a 'lifeline' for a 'deadlocked' Japanese economy 'set adrift in the stormy waters of the global economy' (Young 1998:186).

After the war, the Americans established and expanded their own military bases, a practice that has been difficult to curtail. As Harvey claims, '[Japan] was left free to develop its own economy provided it remained politically and militarily compliant with US wishes' (Harvey 2005:6). This reflects the coupled logics of territorialisation and globalisation since economic hegemony requires the expansion of military power alongside 'soft' political ideologies (Jessop 2006:147). The continued occupation of

¹⁷ There is even special section dedicated to anti-Americanism in the Okinawa Prefectural Museum, including reference to the rape of many local women by US soldiers.

¹⁸ Assimilation also occurred in Amami during this time.

Okinawa and the post-war financial, bureaucratic, and conservation assistance that the US lent Japan reflects this strategy, since boosting Japan's but also Germany's economy in the post-war period created new markets for American exports while boosting the flagging global economy. While Okinawa reverted to Japanese governance in 1972, a fifth of the land continues to be occupied by US Forces in exchange for military protection. This can be translated as the US gaining 'outer' territory in Asia and Europe to resist threats to its own economy from post-war communism and latterly China's economic prowess. Journalist Patrick Smith claims that the Americans encouraged the Okinawans to reclaim their culture – language, customs and crafts – after the war 'to demolish another aspect of the enemy's prewar nationalism' (1997:283) that asserted 'Japanese culture' nationwide. But local crafts such as *bingata* would have also been considered an industry that, with improvement, could contribute towards the island's independent economy through exports and tourist curios.



If in the immediate post-war period communities were encouraged to seek alternative materials to forest products, one could assume that this would have been the case for dyeing. Dohke-san (below), who ran the *bingata* workshop we participated in alongside his wife Yuriko-san, suggested that the golden yellow of Ryūkyū kingdom was produced with *fukugi* and a ‘stone’. I have established that this ‘stone’ is likely to have been *enji* (*Laccifer Lacca Kerr* or Chinese Lac), a colour-producing insect that is trapped in tree resin used to make shellac and a dark red dye (Yoshioka 1993:14). Cultivated in South East Asia, trade in this non-essential commodity probably would have been disrupted, with back-up supplies destroyed during the 1945 battle – alongside the archive of *bingata* stencils.¹⁹ Even when supplies would have been re-established, the nostalgia boom that boosted *Oshima tsumugi* in the 1960s also occurred in Okinawa leading to an overhaul of *bingata* production. Dohke-san explained that it was during this time that craftsmen replaced their ‘*daitai*’ (approximate or rough) techniques (see Chapter 2) with ‘sophisticated’ ones learnt from *yuzen* makers in Kyoto, which improved the finish to reflect changing tastes. *Yuzen* is technically similar to *bingata*, using stencils or hand-drawn resist dyeing, but by the 20th century chemical dyes were increasingly being used to produce a clean, luxurious finish that required steaming to fix the dyes. To raise the status of *bingata*, craftsmen abandoned some of the more traditional plant base-cloths (banana, hemp, and sometimes cotton) and introduced silk, more suited for kimono construction, and chemical dyes. It is only now that craftspeople are beginning to re-establish knowledge of the old techniques disrupting an ideology of ‘linear’ improvement (Bhandar 2018:46). Once again, craftspeople are responding to changing aesthetics and the rise of eco-friendly production methods and materials, but also conservation issues that are emerging with post-war textiles. I was told these issues were principally due to atmospheric conditions in Okinawa, where it is hot and humid and not suited to Kyoto *yuzen*.²⁰

Sumiko Sarashima’s 2013 research shows that traditional knowledge of using and producing natural dyestuffs is not being enacted by older master craftspeople in Okinawa today. My own research in Okinawa however shows that a younger

¹⁹ Ironically, I was told that hundreds of *bingata* stencils were destroyed in the war but that copies made by the Mingei craftsman Keisuke Serizawa were returned from the mainland for copying.

²⁰ I would imagine that the humidity of the island recreates the conditions of a steamer leading the dyes and pigments to bleed.



generation of craftspeople (who apprenticed with these *bingata* masters) are engaging with traditional knowledge through books, exchange with international experts, experimenting with local natural pigments and growing their own in their backyard. Rather than *bingata* following a line of technological evolution (see Chapter 1), the example of *fukugi* dye demonstrates that craftspeople may have faced little choice but to adapt their techniques and materials to industrial variants, constrained as they were by geopolitical and economic forces. It also demonstrates the importance of diversity. Whereas monoculture crops, including forestry, are increasingly coming under fire for their lack of resistance to pests, diseases, and extreme weather events, the blanket replacement of natural dyes with chemical alternatives denies access to current and future generations of craftspeople who are needing to respond to changes in conservation and market conditions.



The photo above shows Yukihiro-san precariously perched on a ladder with a *nokogiri* (handsaw) about a minute's drive into Toguchi village performing his 'hedge cutting service'. He came to this orchard that backed onto an old *minka* (traditional wooden private house), and to other houses when called on by neighbours or when he needed *fukugi*. This primary source of the dyestuff is convenient, but only yields limited quantities of materials per cutting. It is chipped and bagged back at the workshop, and must be boiled, strained, and used within a number of days.



ハブキラハギドゥギン

Fukugi has been used in Amami since at least the reign of the *Noro*. The *Noro* wore *kamiishō* (divine clothes) (Hendrickx 2007:220) such as this 'Habirahagidūgin' jacket featuring the golden yellow of the gods, whose triangular pattern symbolised the butterfly. Butterflies were considered *kami* who acted as messengers between worlds (Suma 2004:7).



Fukugi also came from the mountainside in Yamato-son, Takahito-san's village, that is located on the coast backing the buffer zone for the area designated for WNH recognition. Restrictions on cutting trees have already been enforced in the area, meaning this second source of *fukugi* is no longer sustainable. Maiko-san (Yukihito-san's sister) explained that if Amami achieves recognition, 'lots of different *fukugi* trees might just arbitrarily become banned from being cut down, so we won't be able to make *fukugi* anymore'. Whether or not this is true, the statement indicates a sense of uncertainty that WNH has caused in regards to access to resources – even those that reside in one's own backyard.²¹ For small production runs the trees from *minka* would suffice, but for larger quantities such as garments and yarn dyed for the Japanese brand 45RPM (found in department stores countrywide), Kanai Kougei would have to stop production or raise the price significantly. Maiko-san explained: 'this is why Yukihito is actually against [Amami] becoming a World Heritage site'.

World Natural Heritage as contemporary resource management

Before heading to Amami I had presumed that WNH was unanimously desired. When I arrived I saw posters mounted on walls, pasted to the sides of buses and on car bumper stickers. But when in June 2018 the decision was delayed and the application put on hold, many local people expressed a collective sigh of relief. There is a general concern about the damaging potential of nature tourism – as was initially experienced by the neighbouring island of Yakushima that achieved recognition in 1993 (see Song

²¹ Craftspeople in Okinawa had to obtain permission to collect a species of bamboo from Yambaru National Park to make a tool needed for processing banana fibres for *bashō-fu*.

and Kuwahara 2016). But global conservation schemes implemented at the local level often restrict people's ability to use their land responsibly. Geographer Sharlene Mollett has worked with indigenous groups who have struggled to maintain 'customary property rights' in 'ancestral domains' within a UNESCO Biosphere reserve in Honduras, where 20% of the country is enclosed in protected areas (2011:101). She writes that:

critics of global environmentalism argue that its hegemonic norms have appropriated "Third World" natural resources in a global commons and that leaders in the Global North have both discursively and materially assumed leadership over ... despite the needs of the people on the ground (ibid:102).

While this critique is valid, she also argues that it is local government who ultimately have the power to exploit conservation initiatives, meaning conservation becomes less about what is beneficial for people and nature, and more about what it can do for a government's reputation and economy. This was highlighted in Japan by journalist Philip Brasor (2019) who reported that the WNH application had been delayed until 2020 because UNESCO and IUCN scientists had raised some concerns about the sites that they wanted addressed, in what might be seen as a power play with the Japanese government. Brasor writes:

Japan is upfront about seeking World Heritage status for cultural and natural assets in order to boost tourism, a purpose UNESCO doesn't encourage. The issue with this purpose is whether attracting visitors to help domestic business works against UNESCO's primary aim, which is conservation.²²

What was interesting about the delay was the gossip that circulated in regards to these concerns, which were not initially reported in the local press, revealing issues that the Amamian community already had with local and national government.²³ These ranged from: the recent building of the Japanese army base and missile store; the possibility that the Americans might build a military base in Amami; and the potential for geological disposal of nuclear waste that would be buried in the

²² 'Of Cats and Rabbits: UNESCO World Heritage Candidate Caught in a Bind over Tourism Drive'. *The Japan Times*. 14 September 2019.

²³ The decision on the application has now been moved to 2021 because of the COVID-19 pandemic.



Flyer reads: 'Cute but...cats are an Alien species! A cat management plan for ecosystem conservation in Amami Oshima.' From Amami City [local authority].

mountains at the heart of the WNH site. But two more likely reasons that circulated, and did in fact turn out to be true, were the exclusion of an area of land in Okinawa that was previously used by the US military that UNESCO wanted regenerated, and ongoing concerns about alien species. This latter issue was already being addressed, mainly in regard to the introduced Indian Mongoose brought to Amami in the 1970s to control *habu*. While mongoose have now mostly been eradicated, the issue of stray cats persists. These unwanted pets and feral populations have been ravaging endangered species including the Amami black rabbit. A Trap Neuter Release and adoption programme was in affect during my fieldwork, as was an

education campaign and an appeal for residents to keep their pets indoors. But more recently a cull program has been initiated, much to the ire of animal rights groups (Brasor 2019), also causing local concerns about the right to keep cats – an animal formally respected as *kami*.²⁴ Regardless, Brasor quotes an Amamian nature guide who explained: 'Amami rabbits have more to fear from urban development, of which tourism is one form. More are killed by cars than by predators.' It is far easier for the government to eradicate problem cats than attempt to reduce road traffic by improving public transport and restricting the number of tourist vehicles on the road – especially those seeking to view an endangered rabbit.

²⁴ According to Akiyo's elderly neighbour, cats were considered *kami* in Amami and after death were put in a basket and hung in a tree to be worshiped.



Yet the paradox that increased tourism inflicts damage on sensitive landscapes does not fit the plan for the sustainable economic development that governments seek. Mollett argues that: ‘the globalization of the environment and the worldwide diffusion of neoliberal policies ... grant legitimacy to a long-standing racialized project of nation building’ (2011:103). By establishing WNH sites, the Japanese government is able to legitimately dispossess the community of prior access rights to land and resources in order to accommodate the mobility of capitalism – that across this chapter has jumped from rice, to sugar, to textiles, to forestry, back to textiles, and now to tourism in Amami. As Mollett writes:

NGO and state conservation agencies alike have moved towards market environmentalism, whereby private property rights determine the rights to use resources communally held and accessed ... Increasingly, protected areas serve as sites for the practice of biodiversity conservation and neoliberal market expansion (ibid:108).

This is a practice that is ‘legitimated by the notion that the environment is best managed when natural resource rights are clear and defensible’ (ibid:109). This suggests that governments can take direct action to ‘preserve’ through the creation of

National Parks, often using eminent domain to acquire land making the property subject to their ‘territorial authority’ (ibid). As I have argued, the same reasoning was put forth when forestry was centralised in the post-war period that used legal frameworks to benefit ‘the greater good’. A case could also be made that the standardisation of craft has been subject to this ideology, since Intangible Cultural Properties are strictly governed by preservation initiatives. This returns one to the preservation vs innovation debate as explored in Chapter 1, since the conservation movement rose out of concerns for the degradation of nature.

In the late 19th Century, the burgeoning conservation movement was split between those who felt nature should be maintained in a pristine condition, such as the Scottish-American naturalist and ‘father of national parks’ John Muir, and those like forester Gifford Pinchot who believed in ‘utilitarian conservation’ (Bankoff 2009:486). Pinchot was in fact said to have coined the term ‘conservation’, it being a ‘practical philosophy’ of managed nature for economic profit whose long-term ‘sustainability’ would result in the ‘greatest good of the greatest number for the longest time’ (Pinchot 1947:504-10 in Bankoff 2009:486). Common to these two approaches is the exclusion of people from the landscapes, whether they are ‘wild’ (as in Muir’s imagination) or ‘managed’ (as in Pinchot’s). Muir has latterly been called out for his racist views on African Americans and indigenous Americans, who he felt should be displaced from their land in order to preserve an untouched landscape.²⁵ Pinchot meanwhile prioritised the economic potential of forestry under the control of a central authority, who would be able to distribute the wealth created by nature (that embraced innovation) in name of the ‘greater good’. It could be suggested that the current conservation model looks to combine both of these approaches by using pristine nature as a means to drive the economy through tourism. But the problem with such structures that exclude communities is that the preservation of one space often comes at a cost to those environments – such as parks, allotments or beaches – which we engage with more frequently.

Environmental philosopher Mitsuyo Toyoda proposes a third vision, of a return to the commons by combining traditional knowledge with innovative practice to ‘re-establish sustainable resource management’ in rural areas (2013:279). In his paper he

²⁵ Sahagún, Louis. ‘John Muir’s Legacy Questioned as Centennial of His Death Nears’. *Los Angeles Times*. 13 November 2014.

addresses critics of the commons (most prominently Hardin (1968)), who believe that the commons cannot work since by their selfish nature humans are ‘rational beings’ who will always ‘seek to maximise [their own] gain’ at a cost to others (2013:281). Toyoda critiques this perspective as have other scholars, suggesting instead that commons management by a community is self-regulating with rules, boundaries and penalties establishing a framework of proper use. Anthropologist Stephen Lansing’s classic ethnography on Balinese ‘water temples’ (1987;2007) similarly shows how decentralised management – in this case of water irrigation of a region’s rice paddies by local priests – constructs artificial ecosystems that provide water but also regulate pest management, increases soil fertility while encouraging biodiversity. Lansing’s work made visible the technical genius of a traditionally organised system of land and water management that was threatened by the Green Revolution, where irrigation would be centralised to account for high-yield varieties that required expensive chemicals (1987:339). More recent work on commoning by environmental scientists documents how the sharing of land and traditional knowledge can build more ecologically efficient food systems (Vivero-Pol et al 2018). Reyes-García et al. (2018) show how sharing seeds of heirloom varieties that are suited to the environmental conditions of the Spanish Pyrenees counters disenfranchisement by corporate seed companies, and the sharing of knowledge strengthens the social fabric of the region.

Rather than an external authority, such as academics, scientists, bureaucrats or corporate partners, setting the agenda, Toyoda claims that a democratic approach that employs community decision-making alongside experts provides autonomy so that communities can adaptively challenge the rules. Toyoda became engaged in a restoration project to demonstrate this potential in an estuary on Sado Island in the Sea of Japan. Here, a lake that hosted oyster farming had been subject to environmental degradation caused by poor practice in the local fishing industry but also by municipal infrastructures, meaning that both fishers and non-fishers were held responsible. The water quality had decreased, but concretisation of the banks by the local authorities also meant that cleansing wildlife had little opportunity to take hold. Toyoda stresses that key to the project’s success was the inclusion of multiple generations since for older fishman ‘the concept of sustainability is too abstract and cannot be connected with their everyday concerns’ (ibid:290). But by involving local children who wanted to explore wildlife and have somewhere to swim, the fisherman

were able to imagine a future. Toyoda concludes by suggesting that it is 'crucial to consider how to re-identify values in the natural surroundings and turn them into important resources that people care about and care for' (ibid:291). Whether this is ensuring water is safe for aquaculture, foraging, swimming, or education.

Reconceptualising the estuary as a commons meant that individuals would need to take responsibility for their everyday practices but also work collectively to restore that environment to the benefit of both humans and nature.

As has been demonstrated, dispossessing a community of a close relationship with the land because of the need for economic expansion, leads to the dispossession of ecological knowledge. This has a direct impact on local cultural practice restricting the capacity of a community to take responsibility and develop caring capacities. Throughout the 20th century a rational approach has been taken to industry whether textile dyeing or forestry. In order to improve productivity and maximise profit, industrialists have attempted to reduce risk by simplifying processes, materials and environments using scientific management. But what I have shown with both dyeing and forestry is that a somatic approach that relies on a wealth of dispersed knowledge and privileges care above efficiency is more sustainable in the long run. For example, by leaving textiles to rest (*nekasu*) between dye application, the colour of the textile will last longer. But this step is also carried out in the knowledge that the colour will eventually fade through use, a property that is highlighted not hidden (see Chapter 2). *Fukugi* is obtained by Yukihiro-san by establishing a tree cutting service that cares for the local community and its infrastructure, the trees having been planted decades ago to reduce damage caused by typhoons. Ensuring that the *dorota* doesn't become polluted with waste *ai* is both an act of care for the colour of *tsumugi* yarns, but also for the endangered wildlife living within (Chapter 4). One might also imagine that knowing the location of *techigi* trees and their ability to produce edible berries during times of social hardship would add motivation to only taking the timber that was needed, or else leaving the roots to allow regrowth. Traditional processes accept that uncertainty will always be present, rather than trying to eliminate risk. By implementing practices of care that are environmentally, socially and materially embedded, uncertainty is mitigated.

I asked the Shachō whether he felt that increased tourism would change Amami? He agreed that the number of tourists was increasing but, in his opinion, it was just a

movement of travelling to small islands in Japan that wouldn't last long, three to five years perhaps. Although it is hard to say how long the current tourism boom might last, and whether or not it will be bolstered by WNH recognition, the Shachō is quick to recognise (having lived through the *tsumugi* boom) that local communities, societies and ecosystems that might enjoy a temporary boom created by a 'spatiotemporal fix' are ultimately left with bust. Foregrounding the economic value of a cultural asset and the processes that bring them into being, whether *Oshima tsumugi*, *dorozome* or a site worthy of WNH status, risks breaking the threads that connect people with nature. But maintaining or re-establishing these threads leads to an acceptance that the future is unknown.





Conclusion



Across the year I spent in Amami there was ongoing construction work to the Toguchi River, which I would pass on my way to work at Kanai Kougei. The workmen were slowly moving down the river towards the sea, using heavy machinery to widen the riverbed and concrete the banks – raising defences after a typhoon led to bad flooding in the village some years before. Further into the mountains the river ran wild, but at intervals it was intercepted by aging, moss-covered concrete walls and tunnels, erected previously in an attempt to manage the risk of heavy rainfall. Week after week I watched the workmen progress, coming ever closer to a stretch of road from where I could observe what they were doing over the steering wheel of my car. On those many trips to and from Toguchi, I pondered whether the engineer's work was necessary and what impact it would have.

The industrial and mechanical scale of the work on the river seemed far removed from the careful handwork I witnessed and participated in across the workshops at Kanai Kougei – yet the proximity between the two endeavours resonated at other levels. For one, the river ran parallel to the workshop's valuable *dorota* (mud-field), a

sensitive ecosystem that both relied on the continual presence of natural spring water brought to the surface with an electronic pump, and seemed intensely vulnerable to flooding. The raising of the riverbanks offered a level of security for Kanai Kougei, and the concrete drains built around the workshop's foundations in the 1980s provided free and convenient wastewater management. However, the wildness and cleanliness of the river further into the mountains also played a fundamental role in the dyeing process. Cloth and yarn were washed in the fast-flowing, clear waters in an upland location made accessible by the feet of the dyers, who trampled the overgrowth carrying heavy boxes of textiles. Between the *dorota* and the riverbanks were fertile *hatake* (small fields or allotments), where bent-over residents with Amamian *teru* baskets would take a shortcut through the workshop's grounds to their patch of Amamian vegetables. The workshop's cats and resident buzzards meanwhile would seek food or hunt snakes and lizards in the scrub that grew between neat rows of sweet potatoes, tomatoes and *handama* (a local bicolored spinach).



The workshop relied upon the control of nature via concrete infrastructure, pipework, electric pumps, and the roads that defined the path into the mountains. But equally, the serendipity of the site and unpredictable local microclimate made Toguchi a

prime area for the production of an esoteric dyeing process like *dorozome*. What became increasingly apparent to me during my fieldwork, was the *permeability* of Kanai Kougei – at a structural level in the workshop’s active use of natural water sources, atmospheric conditions and fertile soils for dyeing or crop growing; and on a more abstract level, through its adaptability and improvisation around its relationship to shifting conditions and access to resources, labour, and the market. While my thesis has taken the workshop and its traditional practice of natural dyeing – specifically *dorozome* – as its core, I have done so with the understanding that such craft practices operate alongside industrial processes through the shared underlying need to extract economic value from material resources and labour. The visual proximity I experienced daily, between the concreting of the Toguchi river in the background and the *dorota* in the foreground, seemed exceptional to me because, within a tight geographic boundary, nature, infrastructure, industry, cultural practice, sustenance and sociality collided in the open. But this boundary was permeable to the elements, to nature, pollution, spiritual forces, the community and the influence of craftspeople and bureaucrats both local and those from further afield. Kanai Kougei might provide a metaphor for the shared ground of uncertainty apparent within the micro processes of natural dyeing and the unpredictable force of river hydrology. I have attempted in this thesis to offer an entrance point for understanding the distinct ways in which Kanai Kougei navigates such uncertainty, and the perspectives this may offer for increasingly urgent discourses around sustainability.

The impact of controlling nature

Japan is annually vulnerable to the effects of 26.7 typhoons (Japan Meteorological Agency 2007), with Amami often lying in their path. But the frequency of typhoons in Amami amounted to a consistency of extreme weather that didn’t register until after I arrived on the island. In fact, there were only two or three typhoons in 2018 that were violent enough for me to bolt the front door – most prominently typhoon no. 21 in September, which caused the significant damage at Kanai Kougei I mentioned in my thesis introduction. My experience of typhoons was mostly marked by inconvenience; of torrential rain, disturbed night’s sleep, cancelled flights, and the disappointment that I couldn’t swim in the sea. But that is not to say I didn’t check in with friends or them with me to be sure everyone was safe. As I have described throughout this thesis, typhoons are considered part of Amami and as such people

take them in their stride. When they know an imminent typhoon might be strong, they take precautions with schools and nurseries closing and the sound of hammering nails resounding through the villages. I had wondered why it was only now that the river was being re-engineered, since the Shachō told me that the strength of typhoons had been worse in the past and flooding therefore more likely. Perhaps, like the unprecedented tsunami that smashed through the sea walls in Tohoku on March 11th 2011, the power of nature has become a more dispersed and shared concern across Japan's population in recent years, and what havoc this power could create in the future seen as increasingly unpredictable.



Photo: Yukihiro Kanai. The *dorozome* workshop after 2018's Typhoon 21.

Such a concern for the future played on my mind, as I asked how climate change might affect a small island like Amami where weather and water are so present in the lives and livelihoods of its residents. This dependence was certainly the case for the dyers, who I have shown are both reliant on natural materials and resources but also restricted by atmospheric conditions, at times needing to adapt their workflow daily. But the answers that I got from residents, who didn't seem overly worried and similarly to Shachō, perceived typhoons to be lessening in their severity, actually aligned with what many climate scientists are currently saying about the region.

Although much of their work is based on modelling, scientists believe that due to the rise in sea temperatures typhoons are shifting further west and heading north to Honshu, away from Amami. In some instances, storms are proving not as strong as previous years, but they are capable of carrying a heavier rain load and lasting for longer which causes flash flooding and landslides – already a substantial problem in Japan.¹ The combination of this shift in direction and the changing nature of typhoons is causing significant anxiety about the ability of mainland infrastructure to cope, as became apparent after Typhoon 21 when Kansai Airport, that serves Kyoto and Osaka (and provides daily flights to Amami), suffered extensive damage. But more frequent, violent and longer lasting storms hitting more populated mainland areas will also have a significant economic impact, with insurance premiums rising to account for damage but also disruption. It is unknown how extreme weather will impact Amami directly, but as an island heavily reliant on state funding and corporate infrastructures it is likely that mitigations and crisis measures at the national level will have knock-on effects economically and socially. This is the case across the world, where the impacts of climate change will range from extreme national drought to localized flooding. Newspaper and blog articles suggest that rather than addressing the source of the problem by reducing its carbon output, Japan, like most developed countries worldwide, is seeking to engineer its way out of trouble. The contradictions inherent in Amami between local experiences and adaptations, and national anxieties and mitigation measures, suggests that while the climate emergency is a relatively new struggle, the uncertainty it generates and the solutions being sought are not unfamiliar.

These historical patterns leads one to ask how local conditions are controlled to manage uncertainty when outside forces are beyond control? How do the actions of bureaucrats and state agencies differ or even conflict with local methods, and what impact does this conflict have? While addressing the vast uncertainties generated by global climate change goes beyond the scope of this thesis, I have tried to account for the way that particularly economic and environmental uncertainty experienced at a national level weaves its way into the lives and work practices of my participants in Amami, particularly in regard to commodity production and consumption. The majority of this thesis has addressed the question of uncertainty felt by individuals

¹ Sousounis, Peter. 'How Climate Change May Have Made Typhoon Hagibis Worse'. *AIRWorldwide*. 28 October 2019.

and communities as a result of friction between nature and economics. Chapter 1 told the history of *Oshima tsumugi* and the unstable market the industry has increasingly had to deal with, addressing the often-opposed approaches of preservation or innovation that aim to sustain the skills of artisans locally. By considering the long *durée* of textile production in Amami, I have shown how processes of industrialisation have applied advancing technology to traditional techniques to gain competitive edge. But, at the stage when technology matched the quality of handwork or a local industry could no longer compete with global prices, a crisis of labour, space, and identity has been resolved through the halting of innovation and the fixing of labour, materials and traditions to local geographies. This worked in favour of the nostalgia boom that occurred in Japan in the post-war period, where the symbolic potential of ‘traditional Japan’ was used to promote national identity, and traditional commodities such as kimono were used to offset social anxiety caused by rapid industrialization and urban migration. Typically, these dynamics have been managed by outside bureaucrats in order to maintain cultural boundaries and local economies. Yet by examining the history of *Oshima tsumugi* one can appreciate that this approach of fixing labour, materials and traditions to geographic spaces only works when there is demand (see Harvey 2001:25). I used my case study of Kanai Kougei to show an alternative approach to fixity, that of innovation and diversification, that welcomed the flow of ideas, materials, technologies and people from outside the community to better manage local conditions. Instead of being threatening, outside forces were reconceptualised by Kanai Kougei as an opportunity to obtain social and economic sustainability using the power of nature and tradition as tools for promotion. But rather than being solid solutions, I suggested that both routes – preservation and innovation – are precarious and therefore require an adaptive touch, that borrow from each other, if craft processes are to endure.

Chapter 2 and 3 looked at how the precarious labour market and environmental pollution in Japan motivated some of my participants to relocate to the countryside where they felt they could obtain more agency in regard to their career, lifestyle and relationships with their community and natural environment. I argued that rather than reframing this move as a retreat, problems became more tangible in rural contexts where my participants felt they could develop the skills, networks and knowledge associated with craftsmanship to enable them to make a difference locally. In Chapter 2 I explored how the alchemy of producing colour allows for these

aspirations to be realised, since natural dyeing ties one to their local geography and community through atmosphere, nature and history. The metropolitan mobility of a younger generation of dyers and their entrepreneurial outlook meanwhile allows them to take advantage of global networks of craft workers and enthusiasts, and to engage multi-national corporations. This makes their lifestyle economically viable, while supporting the wider island economy. Nevertheless, I highlighted that this approach to business requires compromise: it comes at the cost of reliance on industrial materials and infrastructures, and exploits the craftsperson's love for their profession to solve the problem of financial deficit and industrial timing, resulting in potentially exhaustive labour regimes.



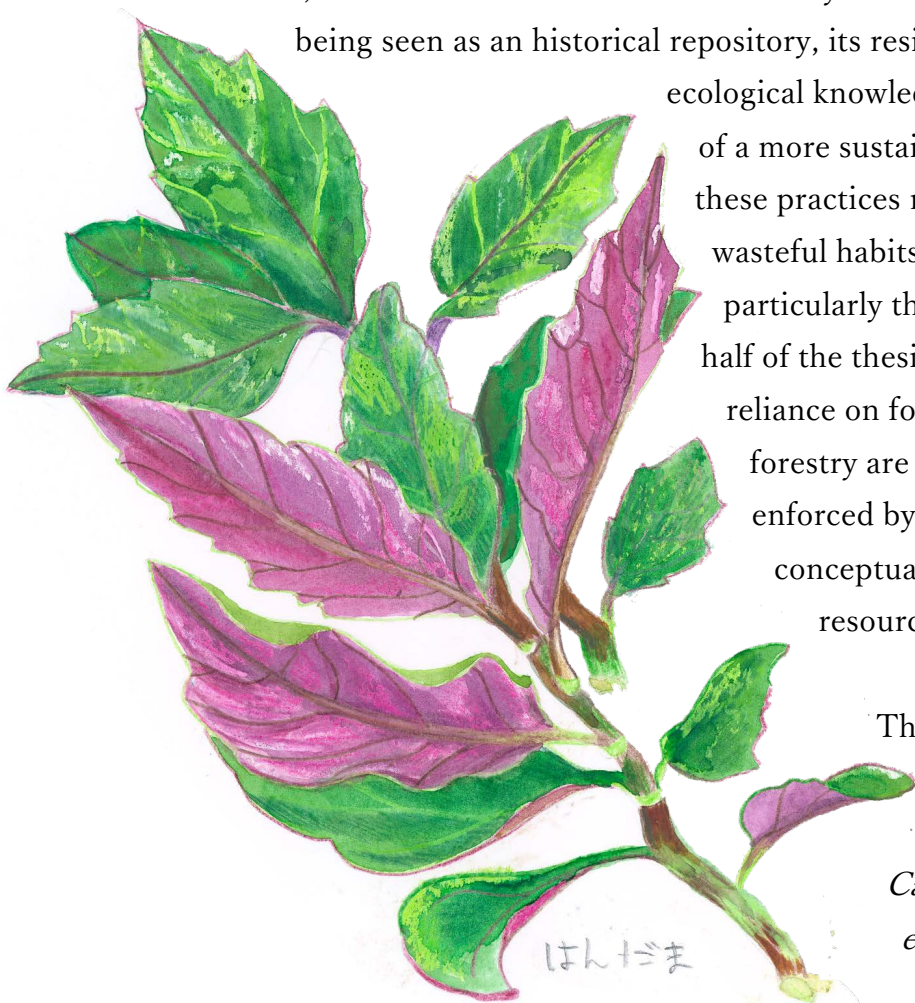
The first two chapters focused on how Amami's textile craftspeople were reformulating local dyeing practices in order to promote and sustain traditional craft knowledge for their own wellbeing and that of the community. Chapter 3 began to delve into the ethics of the

environmental impact of the production and consumption of commodities. I have shown how, at Kanai Kougei, production and consumption have been blurred through the public workshop model that enables people to 'make their own', but also how my participants' past consumption practices inform how they live their lives and consume in the present. I discussed how many of my participants had been drawn to Amami partly in response to a history in Japan of economic growth being prioritised over the health of citizens and the environment. My analysis followed the narrative of food security, an issue heightened since 3.11 when anxiety caused by radiation created at least two 'secular spirits' of the Anthropocene (Bubandt 2017:G124): the first being radiation's invisible potential to cause significant health problems; the second, the bureaucratic failings that led to a loss of trust in public health advice issued by the state. In order to regain control of these aporetic forces many of my participants reassessed their work-life balance by moving to the countryside to re-establish

stronger connections with nature and local food systems. I have suggested that as a result of lower incomes and an increased sensitivity to seasonality on the island, my participants were redefining the meaning of affluence and re-evaluating waste through practices associated with the Japanese term *mottainai* (what a waste). The address of a waste of life, waste of time, and waste of materials coalesced in Amami through sharing, exchange and reuse economies, leading me to ask whether everyday practices could actively facilitate lasting redefinitions of value. The first discussion I had about *mottainai* was with Kazuko, when we both noticed that outside a weaving school many fallen *tankan* weren't being collected. *Mottainai* expresses 'shame' because it highlights something that has value in the broadest sense but isn't being accessed as it might. *Mottainai* might have reflected the loss of economic value since these citrus fruits can be sold with good market value. But, on another occasion, Kazuko told me that her kids were out of the house because they had accompanied her neighbours to pick the family's *tankan* grove. This activity could be defined as highly social, educational, fun – and it would mean the boys would return home with bags of *tankan* that would last several weeks. Value then is not concentrated on the economic, but distributed in far more novel ways. Rather than the countryside

being seen as an historical repository, its residents, traditions and local ecological knowledge might just posit an idea of a more sustainable future. Nevertheless, these practices might be offset by more wasteful habits that go unacknowledged, particularly those described in the second half of the thesis, where water pollution, a reliance on fossil fuels, and industrial forestry are reflective of practices enforced by national policies, that sever conceptualisations of circularity within resource use.

The first three chapters worked towards answering my central research question: *Can local craft processes and ecologies of production*



sustain a community socially, economically and environmentally? In many respects the answer would be a tentative yes, but as I have shown the situation is complex and precarious. As discussed in the introduction to this thesis, sustainability, as an interconnected set of practices and rhetorics, necessarily functions at a scale that is global and universalising, with impact often felt at smaller scales through targets tied to ends-oriented change. Imperatives towards reaching the goal of ‘sustainability’ are therefore often divorced from conditions experienced at local levels, with defined sets of protocols instituted by an outside authority or the expectations of an ethically driven corporate brand. The ideology of sustainability, not unlike heritage or other preservation initiatives, largely serves to define ‘low impact’ small scale craft processes as niche and geographically and temporally bounded. In this thesis I have therefore looked to turn my gaze away from ‘sustainability’, and instead towards ‘sustaining processes’, what I have defined as ‘those small actions that my participants carry out on the ground in order to maintain resources, whether cultural, economic, or environmental, while being subject to pressure from local hierarchies, municipal bureaucrats or commissioning designers.’

While I have argued that *kusakizome*, at least in Amami, relies on local materials, environmental conditions and traditional knowledge, my research has shown that craft processes, craft materials and craftspeople are always on the move, adapting to circumstances as they present themselves. This suggests that the adaptability – not only the fixity – of craftwork should be highlighted. This is because craft cosmologies can redefine the concept of innovation, suggesting that ideas do not necessarily need to be new to respond to modern-day problems. The Shachō and Yukihiro-san’s work in redefining the potential of *dorozome* (Chapters 1 & 2) demonstrates this well, while the embrace of *mottainai*, as described in Chapter 3, illustrates a wider practice of recycling old ideas to answer contemporary problems among creative communities. As I argued earlier, Kanai Kougei is a permeable entity that both absorbs difference, reconceptualises disruptions and uses innovation to problem solve. But it is also clear that this permeability has its boundaries – water literally seeps into every aspect of Kanai Kougei’s work, yet its disposal practices seem to sever a connection to water at the point it meets the workshop’s drains. My understanding of ‘sustaining processes’ therefore needs to encompass actions that appease uncertainty through wilful avoidance, or even neglect. These actions can perhaps be gauged in terms of proximity – the issue of water pollution is considered to be distant enough not to

impact on the workshop in a way that would outweigh other considerations related to the sustaining of itself, its environment and community. Contradictions and compromises, that tend to lower production costs rather than being beneficial to the environment, have to be accepted. Such compromises are sought to sustain local social relations (even within the confines of the workshop) and to appease high-profile clients further afield.

Yukihito-san often told me that working in apparel differed from *tsumugi*, because the business was heterarchical rather than hierarchical. In some respects this was true – he was in a position to negotiate terms or refuse work if it did not align with his vision, unlike the *tsumugi* industry, which remained very much top down. Yet I watched as a bystander as designer brands would take advantage of the workshop's generosity in regard to payment procedures or use the promise of big orders or PR exposure to pressure Kanai Kougei on cost, timing, or what was achievable aesthetically. Having come from this world myself, I know how to recognise these tricks of the trade from a distance, and I offered my opinion when asked. This was certainly a benefit of my methodological approach, since I stood in the unique position of being both expert and novice. Rather than asking how reaching economic sustainability might positively impact craft communities and ecologies, an alternative perspective on these conflictual conditions may stem from asking how craft communities, their ways of life and epistemologies might disrupt capitalist frameworks of consumption?

Chapter 4 begins to focus on local resource extraction, setting the tone for the remaining chapters by bringing to the fore the wider theme of control and impact that runs through the first but also the second half of this thesis. From the micro processes of natural dyeing to the macro scale of wildlife conservation, I have highlighted (hu)man's desire to control nature, and the negative (but sometimes positive) impact that these actions have. I have tried to account for the contradiction between discourse and practice where Amamians have a strong connection with, and respect for, the natural environment – but where, like most advanced capitalist societies globally, environmental ethics are sometimes inconsistent.



In Chapter 4 I used the case study of bird conservation in Japan as an historical example, guided by the wild *mejiro* kept as a pet at Kanai Kougei. Grounded in the period during and immediately after WW2, a time when Japanese conceptions of nature collided with Western ideals and a period of widespread modernization ensued, I demonstrated in the local context the geopolitical, social and ecological dynamics that either allow or resist the ability of global environmental movements to take hold. During this period, the abundance of nature was commodified to sustain the population in times of scarcity. But the occupying Americans in the post-war period brought into sharp relief what Japanese elites had been saying for decades; that the consumption of birdlife was ecologically unsustainable. I suggested reasons why conservation was successful, despite wild bird consumption being culturally important. Birds consequently reverted from commodity to ‘companion’, as human populations were alerted to the interdependent dynamic of their relationship.

Bringing the wildlife conservation debate into the current day, I explored how Japanese Shinto cosmologies integrate animism into daily life and discussed how ‘spiritual’ narratives tend to incorporate practical knowledge of living in relative harmony with other beings. I suggest, however, that post-war rationality in the form

of techno-scientific development and the use of industrial materials, has tended to obscure these narratives and break the threads of connection that tie people to the land. I argue that without a physical land-based connection, *kami* and therefore nature became an abstraction. But by imbuing the material world with visual symbols of *kami* and also endangered wildlife, a contemporary form of totemism or visual companionship occurs creating a connectedness that bridges the distance between internal thought and external representations of nature. These totems promote care and responsibility – at least in theory. This case study, that took into account natural resource extraction in Japan but also Amami, set the scene for a closer look at Kanai Kougei's ecologies of production in chapters 5 and 6.

Chapter 5 sought to understand water pollution at Kanai Kougei as a generationally defined happening, resulting from financial limitation and culturally embedded practice. Through an analysis of water sources used by the workshop, I argued that water is a central binding force that enmeshes history, ecology, utility and capital at Kanai Kougei. But I also revealed practices of disposal, where waste dye and chemicals are put into the drains, washed into the Toguchi River, then out to sea. I used a discussion of Amamian spirituality to suggest that water pollution results from a continuation of geographically embedded beliefs where nature and spiritual beings are considered to reside beyond the boundaries of the village in the mountains, forests and ocean. The river within the village, meanwhile, is conceptualised as infrastructure, and practices of disposal not updated to account for industrial materials. The visual implications of the concreting of the riverbanks means people become less responsive to the river's needs, they forget what it is, and take more risks – a problem exacerbated by increased secularisation, and a growing distance from Amamian historical practices associated with the local priestesses the *Noro* and *Yuta*.

Chapter 6 delves into reasons why nature has become increasingly abstract by exploring land and forest access in Amami, and the historical events that have led to an increasing disconnect with the land and loss of Traditional Ecological Knowledge. I argued that nature's reduction to data, a conceptualisation that exists within a history of Western knowledge systems where the control of nature has been seen as a tool to improve society, has been forced by economics mostly instituted by colonial and imperial forces. By making nature easier to govern and understand, humans have been better able to control it and thereby increase productivity, a method applied to



both natural environments and communities of people, plants and animals. By focusing on trees essential for dyeing textiles in Amami and Okinawa, I highlighted the impact that this control has had in the realm of forestry, where the ability to access even individual trees is

precarious and obtaining them in the future uncertain. But more importantly, I suggested that the control of nature has meant that craftspeople are not able to conceptualise a tree's 'real worth' and thereby implement practices of care. This is because the trees are seen only as an economic unit and not an element existing within an ecosystem. I explained how this has been able to occur, as communities have increasingly been dispossessed of land, and property laws made more hegemonic in the context of geopolitical interventions. I suggested that although the aims of conservation, preservation and resource management – centralised initiatives organised at the state, prefecture or NGO scale – are often imagined with good intentions, foregrounding economics to promote but also sustain natural environments or craft processes often increases risk. Instead, it might be argued that with guidance local people are better able to manage their environment through everyday action: firstly because they have self-interest; secondly, because social pressure among communities encourages self-governance; and lastly, local communities tend to have ethical, genealogical, and/or spiritual connections with things and places that prompts sustaining processes whose flexibility cannot be matched by external management.

I draw the chapter to a close by considering what it means to bound an area – such as a national park – within a landscape. Does it mean that the surrounding area is considered less worthy of protection? And might a comparison be drawn with the bounding of crafts worthy of Cultural Property preservation? In the introduction I posed the argument that Japan's cultural and natural properties are exploited by the ideology of improvement, making them subject to appropriation by the government

and market as assets. By the demarcating of these assets as special they can be put to profit, with their ‘natural’ qualities being particularly valuable during this current period of environmental crisis. This bounding of property is important since it works towards a greater understanding of current heritage models, that might offer fresh insight. The Japanese system of craft preservation via the Intangible Cultural Properties scheme is held in such high esteem since, unlike UK models that have historically focused on preserving objects, the Japanese model aims to preserve the skills of individual and collectives of craftspeople resulting in prestige and finance. This model is lauded since, in theory, it encourages the transference of intangible knowledge across generations so that the same item can be made anew in fifty, 100, or 300 years time. Yet, much in the way nature conservation focuses on a particular space, what I have clearly shown is that while craft preservation aims to maintain skills, it ultimately still fixes these skills within the object – whether it is *Oshima tsumugi*, Onta pottery, *Bingata* or *Sukumo* indigo. However, it is the *permeability* of the skills of craftspeople and their ability to adapt to environmental and economic conditions that makes *dorozome* possible in a context such as Amami. Nevertheless, the skills that are highlighted within schemes such as ICP, but also in the marketing literature of companies using Kanai Kougei’s services, reflect unchanged practice and the perfected outcome of a technique that emphasises continuity, a fallacy that is marketed for profit. I have also shown that the *tsumugi* union, and those with a stake in *tsumugi*, work towards preserving the skills of *dorozome* or techniques such as weaving, but have little interest in securing the future of *techigi* trees – despite them being essential for the dyeing process. Similarly, the methods of washing yarns in the rivers and obtaining groundwater is vital for achieving the approved shades of *Oshima tsumugi*, yet it is unlikely that the importance of the river is considered by anyone other than the dyers.

Promoting low impact craft processes as sustainable is also a worthless pursuit if interconnecting processes, materials, infrastructure and labour are not taken into account. This problem, on a broader scale, has been demonstrated by the Japanese government’s recent promotion of *mottainai* as part of their sustainability initiative for the Tokyo Olympics.² Various waste and recycled materials have been adopted including: renewable energy, recycled rainwater, podiums made from recycled

² E.g.: ‘School Action “Mottainai” Plan, Olympic and Paralympic Education in Tokyo’. Accessed:3.1.21 <https://www.o.p.edu.metro.tokyo.jp/en/school-action-mottainai/>.

plastics and medals made of recast precious metals from post-consumer electronics.³ But the construction of the Olympic stadium itself has recently come under fire. Structurally, it uses Japanese wood in tandem with concrete panels to create the look of a cliff face. Yet these panels are made using cheap plywood, the production of which has recently been sourced to timber harvested from South Asian tropical rainforest with unknown origins.⁴

My central argument here is that embracing, promoting and preserving traditional craft skills is of little value if the process is not considered more holistically. Instead, across this thesis, I have shown that craft processes and craft communities of natural dyers are entangled in complex geographically-specific entwinements of nature, cultural practice and economics. These entanglements accrue across multiple temporalities, in the case of Amamian *dorozome*, influenced by feudalism and land-based belief systems through to post-war state reforms and contemporary patterns of migration. Craft processes use intangible knowledge of local materials and resources garnered via social relationships established across many generations and also gain those from further afield, through communication with crafting communities across Japan and internationally. They access informal economies that allow the craft to continue, while taking advantage of international markets and state financing. Craft cosmologies exist alongside ecosystems of companion species that assist in the production of commodities, whether it is the trees and plants that provide colourants, the bacteria that ferment indigo baths and *techigi* dye, or the *mejiro* that pollinate *tankan* blossoms to provide sustenance for the dyer.

³ 'Tokyo 2020 Sustainability'. Tokyo 2020.org. Accessed:31/12/20

⁴ Neslen, Arthur. 'Tokyo 2020 Olympics Confirms Use of Rainforest Timber in Stadium Build'. *Climate Home News*, 23 February 2018.

Ecologies of (textile) production



When I have given talks about my research in the last few years, textile enthusiasts have been frustrated when I haven't explained exactly how the *shimebata* loom works (Chapter 1, p.58). Those who work in conservation meanwhile want to know why the iron mordant used in *dorozome* doesn't destroy the fibres, since it is widely acknowledged that ferric oxide eventually eats away at textiles that utilise similar chemistry. While my research is embedded in the Amamian textile industry, it is not a traditional ethnography of making that my participant apprenticeship methodology might allude to. Unlike the work of anthropologist Maureen MacKenzie (1991), details on technique are largely confined to the appendices; neither does this thesis follow the path laid by Tim Ingold (2013) or Trevor Marchand (2011) who bring to the fore somatic knowledge. I believe that aspects of this work are embedded throughout the chapters, and reflected in my use of design, apprenticeship and visual methods. But the heart of the thesis is located in the natural world, somewhere a reader who is expecting to learn principally about textiles may be surprised to find themselves.



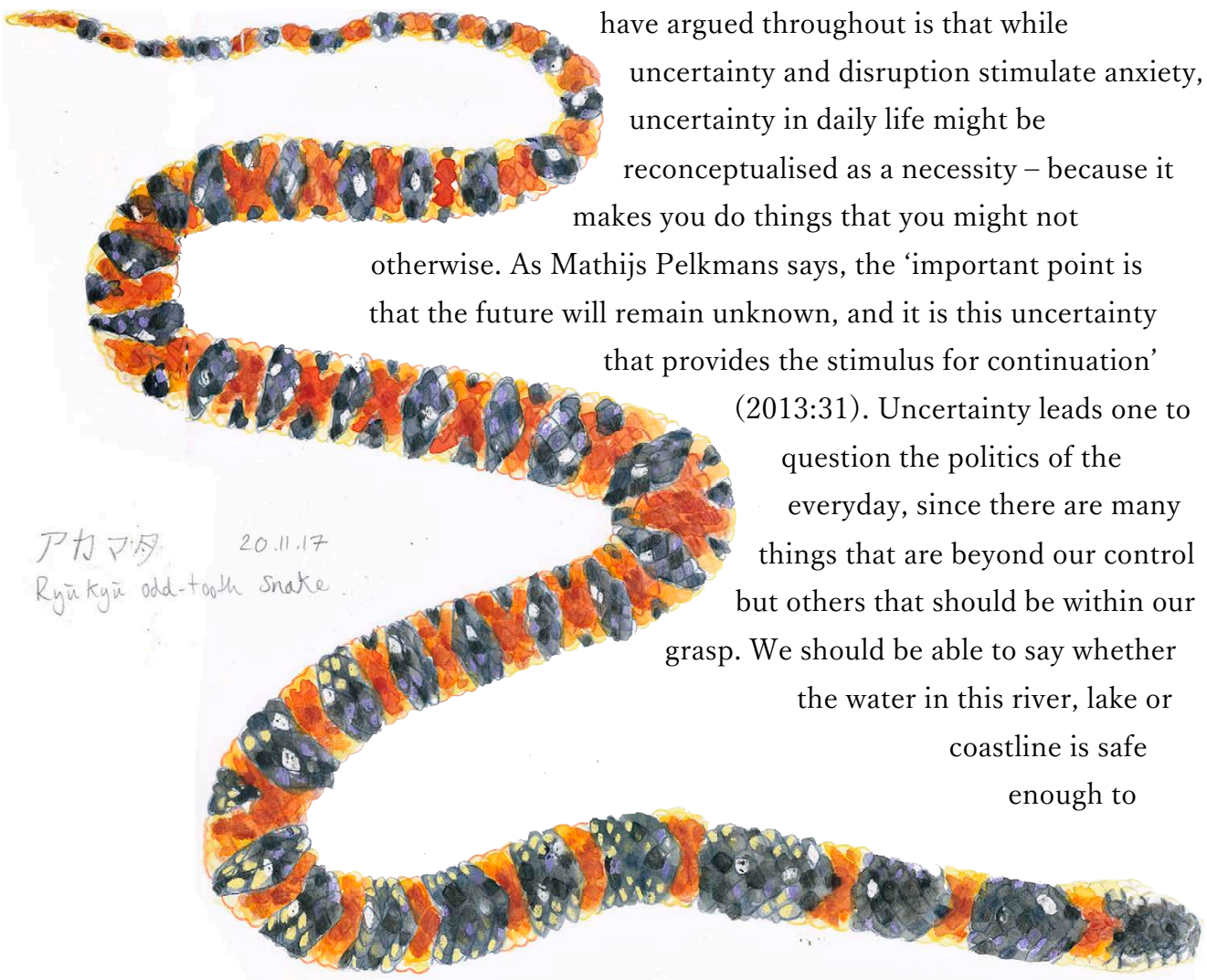
I headed to Amami with a desire to learn more about the materiality of natural dyeing and to explore those ‘natural’ credentials and what they might mean for discourses around sustainability. The reality, then, that dyeing cosmologies expanded into the forests, mountains, skies, rivers and seas should not be a surprise to any anthropologist. My work, however, offers a new perspective on the study of textiles and the study of the environment because I demonstrate the point where these two disciplines meet through economics and resource extraction, in what I term ecologies of production. These are spaces shaped both by human and other species that collectively work in a productive capacity both within and outside of capitalist systems. They may be the rivers used to wash yarns, the biodiverse *dorota* whose mud is aerated by the boots of dyers, the monoculture forests where *techigi* grows or the boundary *fukugi* trees of old *minka* houses that shield fruit groves from the wind, while offering up a brilliant shade of yellow. Like the *satoyama* (mountain village) ecosystems of Japan, where cultivated and uncultivated areas in the mountains, valleys, forests and sometimes seas, provide ideal habitat for a variety of species that are helpful to humans, in ecologies of production, there is also interdependence. A variety of species embedded in the landscape are interconnected through material

and infrastructural needs, yet as I have shown, there is also a breakdown of understanding of this level of dependence amongst craftspeople, a reality that does not bode well for more sustainable futures. I argue that understanding how ecosystems that support craft production function environmentally, socially, culturally and economically is key to establishing sustaining processes that could have wider implications for the future of craft and other production-based industries.

While my introduction was written during the first UK Covid-19 lockdown, my conclusion is being written during the second wave of the pandemic. Some things have become more certain – we better understand the challenges faced in the months ahead for example – but now the virus has mutated to become more contagious, it is having an unpredictable impact on geopolitics and supply chains. The UK's borders have been closed, and I am left worrying whether I will be able to buy Seville oranges at the supermarket or post letters to friends in Japan. Beyond the anxiety of catching the virus, it is interesting to watch how uncertainty starts from afar and moves into the domestic sphere – to the contents of one's fruit bowl – in no time at all. What I

have argued throughout is that while uncertainty and disruption stimulate anxiety, uncertainty in daily life might be reconceptualised as a necessity – because it makes you do things that you might not otherwise. As Mathijs Pelkmans says, the 'important point is that the future will remain unknown, and it is this uncertainty that provides the stimulus for continuation'

(2013:31). Uncertainty leads one to question the politics of the everyday, since there are many things that are beyond our control but others that should be within our grasp. We should be able to say whether the water in this river, lake or coastline is safe enough to



アカマタ 20.11.17
Ryūkyū odd-tooth snake

swim. If not, why not, and who is responsible for its care? Since international travel was disrupted, the pandemic has forced questions that might have seemed superfluous or monolithic into the public spotlight. It has made societies globally question what John Law after Annemarie Mol suggests are ‘different realities’, and when one might choose to adopt ‘*political* reasons for preferring and enacting one kind of reality rather than another’ (2004:13). In many instances these realities are chosen based on a need to implement change, but my work has shown a contradiction at play: that good intentions, motivated either by a genuine desire to implement processes of care or else to perform it, do not always result in direct action. It is often the case that communities are restricted by a lack of finance, or by social norms, the pressures of time, or the inability to organise, resulting in compromises to reach a resolution.

As I have shown throughout this thesis, traditional craft provides its own reality – different stories of make and use that can be adapted by the craftsperson or commissioning agents to fulfil a purpose. Craft processes – such as natural dyeing – are thought to have a low environmental impact, to support cultural continuity and offer enriching vocations. The practice has therefore entered the discourse as a fix to contemporary problems of resource extraction, production, use and disposal of commodities, and associated discussions around labour. In this respect, natural dyeing is an example of the universalising tendencies present in sustainability rhetoric, where designers and brands latch onto the knowledge – or hope – that it will assuage anxieties (their own or others) and serve as an encouragement to consumers to buy their products. Capitalism is, after all, ends oriented, locating the quickest route through to generating capital. But across this thesis I have tried to show that natural dyeing and traditional craft processes more widely are not the panacea for the challenges faced by the fashion and textiles industry. I have shown that natural dyeing is a process full of contradictions, entangled in histories, societies, ecologies and markets of varying scales and ethics. Perhaps more tellingly, it is at the apex of problems surrounding resource extraction, materials stewardship, land access and exploitative labour as issues that exist on a historical continuum, rather than simply contained by concepts of modernity.

Accordingly, I have endeavored to highlight the pitfalls of extracting the methodologies and practices that Kanai Kougei work with as solutions to concerns

around sustainability. Such a logic renders solutions through bounded conceptions of space and time – the uniqueness of place that yields privileged access to materials, and that of history that produces cultural specificity – rather than addressing the uncertainties, absences, and frictions that exist within the dynamics of control and impact felt in an environment. Instead, I suggest that the workshop may be considered as a heuristic device for complexifying the way we think and produce knowledge around concerns of sustainability, and how this spans geographies and temporalities. Among its wealth of techniques, skills and aesthetics, what can be learnt from Kanai Kougei is how the embrace of a lack of control, and the acceptance of uncertainty, is responsively built into local epistemologies. Traditional craft is not a fixed system of practices and relations – seen outside of the imperative to preserve, it is rather a daily encounter with the very issues that lie at the heart of our ability to exist sustainably.



Areas for further research



Madder harvested from the Horniman Museum's dye garden. London, Summer 2019.

There are two further but different areas of research that I believe to be important to follow on from my study. I believe there is more work to be done in illustrating the connections between craft and resource management, and how one informs the other, particularly as they function as ecologies of production. I have argued, for example, that *Oshima tsumugi* historically came to the fore because of changing patterns of land management, labour shifting from the black sugar industry, and *dorozome* taking advantage of devalued local timber. *Dorotas* meanwhile, play host to several rare species in Amami, a fact that doesn't seem to register locally. What might be learnt from other geographies (in Amami and beyond) where craft continues to respond to environmental, social and political conditions that manifest themselves through local land practices? What might be learnt from different dye materials and their specific ecologies of production, from indigo to madder to cochineal? How do these change across different geographies, and how might such research inform vital sustaining processes in the future?

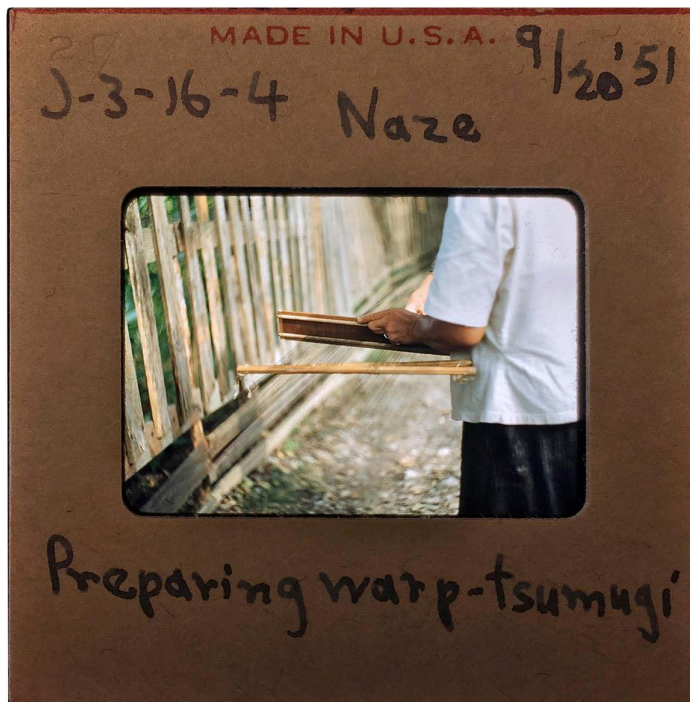


Image: Douglas Haring Papers

The second area of research is more specific and concerns anthropologist Douglas Haring's archive, based at the University of Syracuse, New York State. I took a chance on visiting this archive based on notes that I'd found in Haring's reports where he referenced the large quantities of visual materials that he had made in Amami, despite little evidence of these in his articles or books. The reference catalogue at Syracuse University library were littered with mentions of photographs taken

in Japan. On arriving in New York, thankfully, I found that Haring was an accomplished photographer, his unsorted documents containing certificates for local photographic competitions folded alongside receipts from the post office and rough drafts of his writing. Discovering several boxes of colour slides that offered exceptional detail about life in 1950s Amami, alongside the promise of a film about *Oshima tsumugi*, felt like lost treasure. Documentary equipment of this quality simply didn't exist in Amami at this time and sharing the images with friends on the island created huge excitement. They thought it was unlikely that records of this quality were currently available in the public domain. I therefore believe that there would be advantages in properly archiving these photographic works and carrying out more research on the content in collaboration with an Amamian scholar. This would not only be a project of visual repatriation, but could elaborate much of the Ecological Knowledge and patterns of land use that have been lost but, just as importantly, demonstrate practices still being enacted in Amami today.

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Appendix 1: *Oshima tsumugi* patterns

自然 ソテツバ



Sotetsu (cycad) plant

島に自生するソテツの葉の形態から。直線的な形態から、縞染めに適し、さまざまに組み合わせられて使われている。ほかの文様を引き立て、空間をうめる補助的な役割をもつ。



自然 川

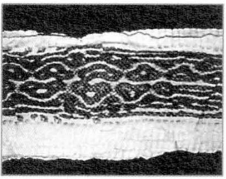


Kawa (river)

川そのものというより、流れる水をイメージしたもの。花などが浮いて流れているような図案がある。

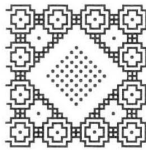


自然 ハブ



Habu (pit viper)

「龍郷柄」として知られているが、ハブをモチーフにした柄。生きた状態のハブのイメージを発想源としているらしく、蛇行形状が導入されている。

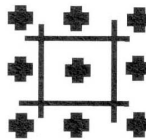


自然 サング

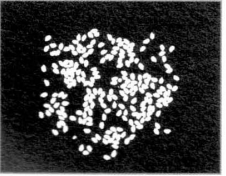


Sango (coral)

枝サングをモチーフにしたもの。小柄「珊瑚花」の基本形をなしている。

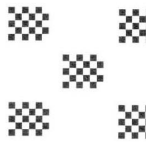


自然 ツブ

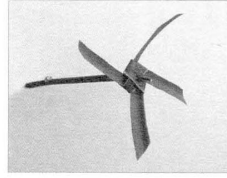


Tsubu (Grain of rice)

米粒のように小さな柄という意味で、文様の最小単位の十の字柄の集合を意味する。



人工物 風廻し (カザモシヤ)



Kazamosha (toy that flies in the wind)

子どもたちの玩具である、植物アダンを材料にして手作りされた風車がモチーフ。静止状態と回転状態それぞれから発想された柄がある。そしてさらに変形し、多くのパターンがある柄のひとつ。

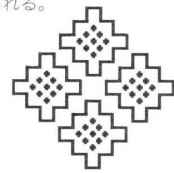


人工物 絨毯

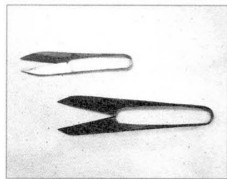


Jūtan (Carpet)

豪華で複雑なオリエンタルな空気を醸し出す絨毯の柄から着想を得たもの。特に奄美にはあまり伝わらなかったために珍重されたと考えられる。

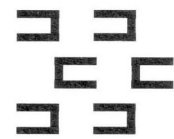


人工物 狭 (ハサン)



Nigiribasami (Grip scissors, used for cutting threads)

織の時に使用する糸切りばさみ。常に身近にある道具。

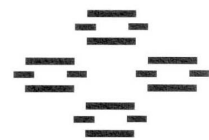


人工物 杼 (ヒジキ)

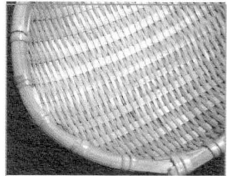


Jūtan (Weaving shuttle)

製織で使用される杼(ひ)の形。

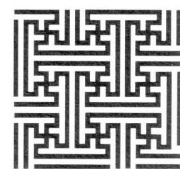


人工物 ザル (バラ)

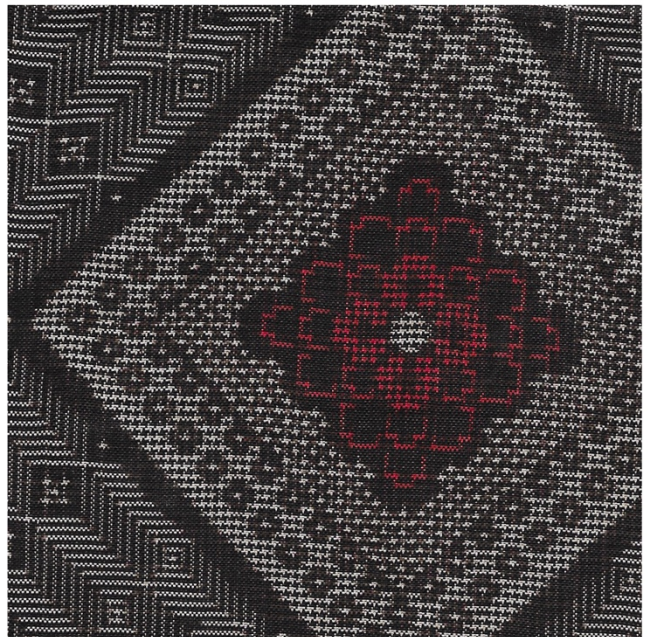


Zanbara (Bamboo basket)

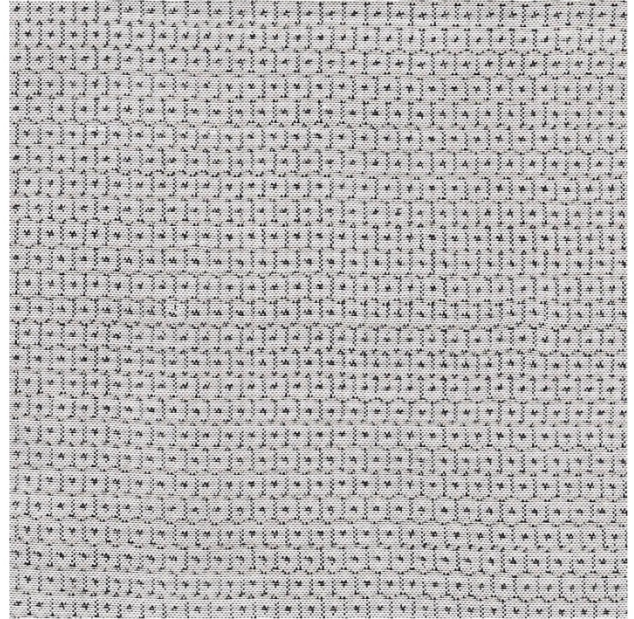
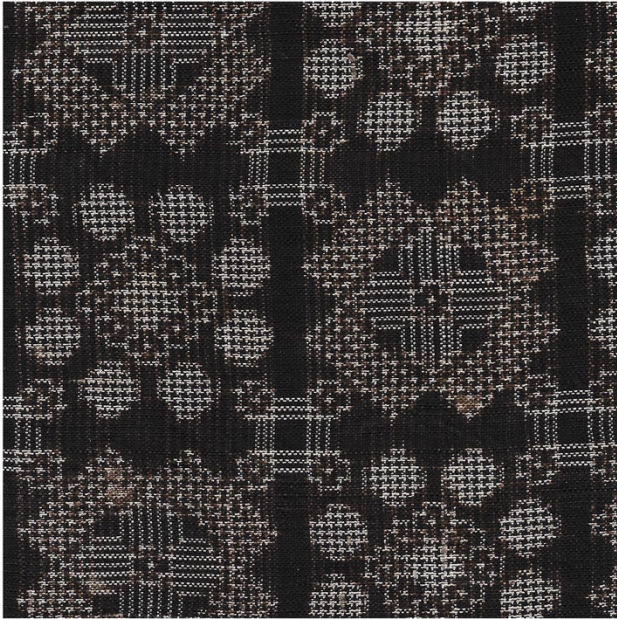
竹で編んだサンバラと呼ばれるザルをモチーフにした文様。多くの文様が展開され、「秋名バラ」が有名。



A small selection of weaving patterns based on nature and material culture in Amami. Image: *Oshima tsumugi* weaving workshop.

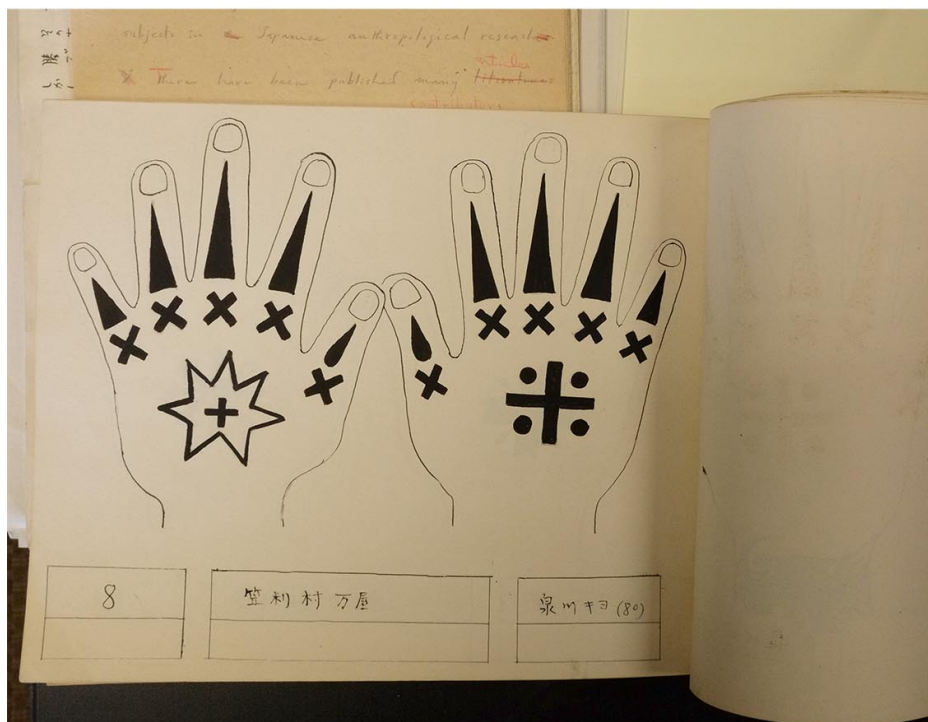
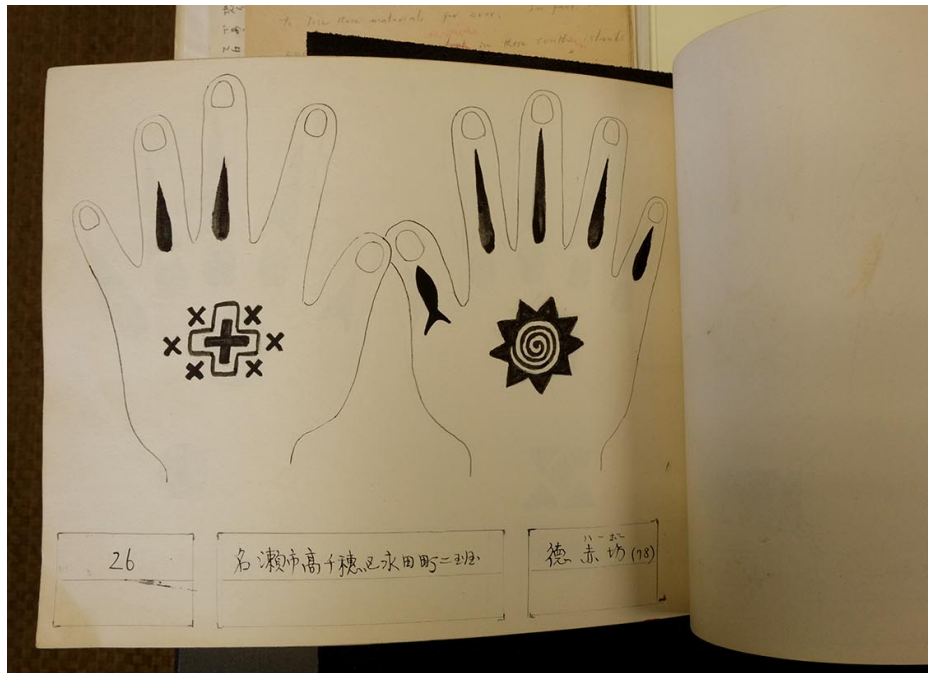


Top left and right: variations of the Tatsugo pattern featuring *sotetsu* leaves, hibiscus flowers and *habu* skin.
Bottom left: The *zanbara* weave from the Akina area.
Bottom right: Pictorial design of yarn bobbin.



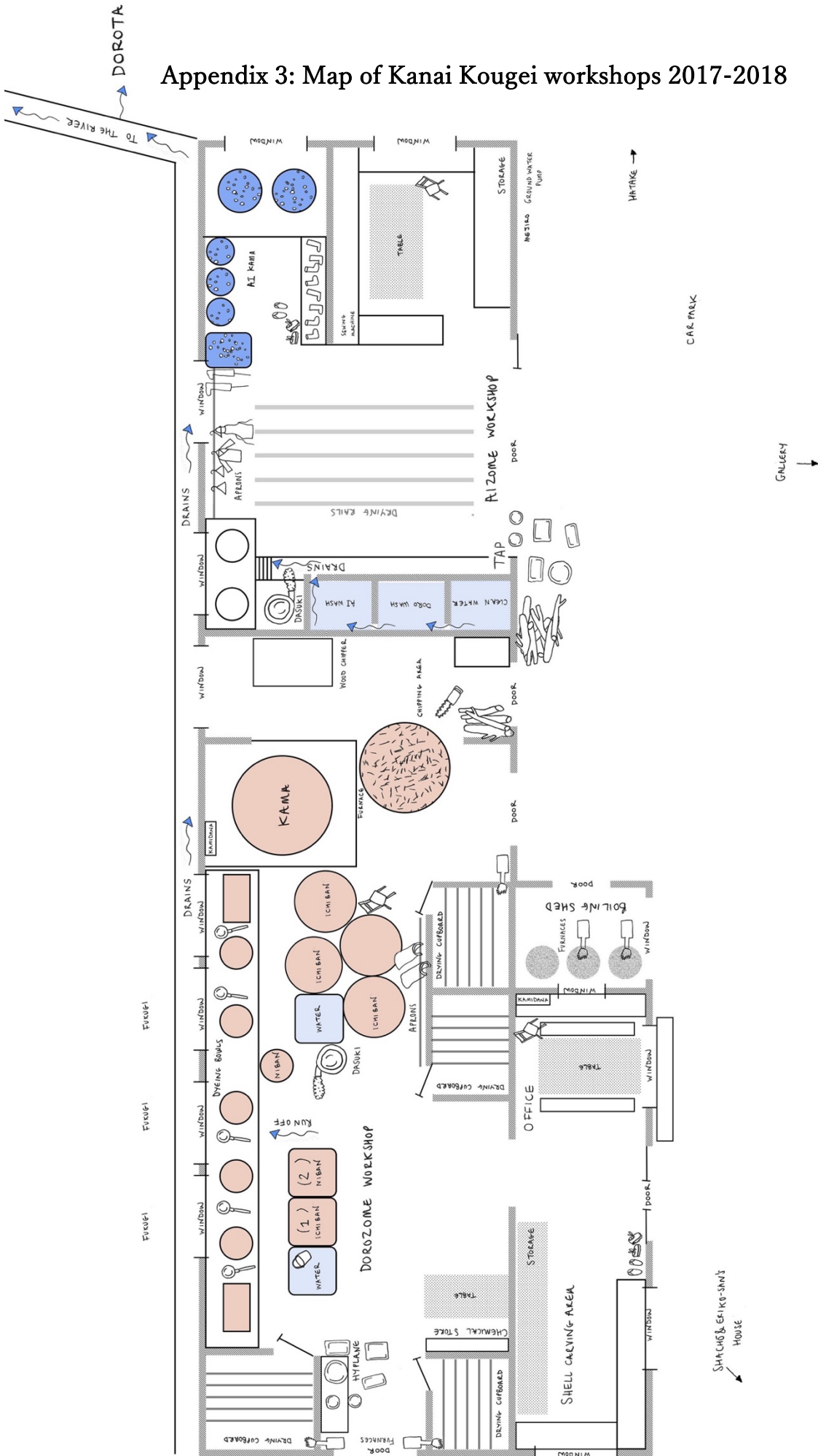
Top left: pattern unknown, could be fish-eye or coral
Top right: sea turtle shell
Bottom left: either a Policeman's badge or star
Bottom right: unknown.

Appendix 2: Amamian tattoos

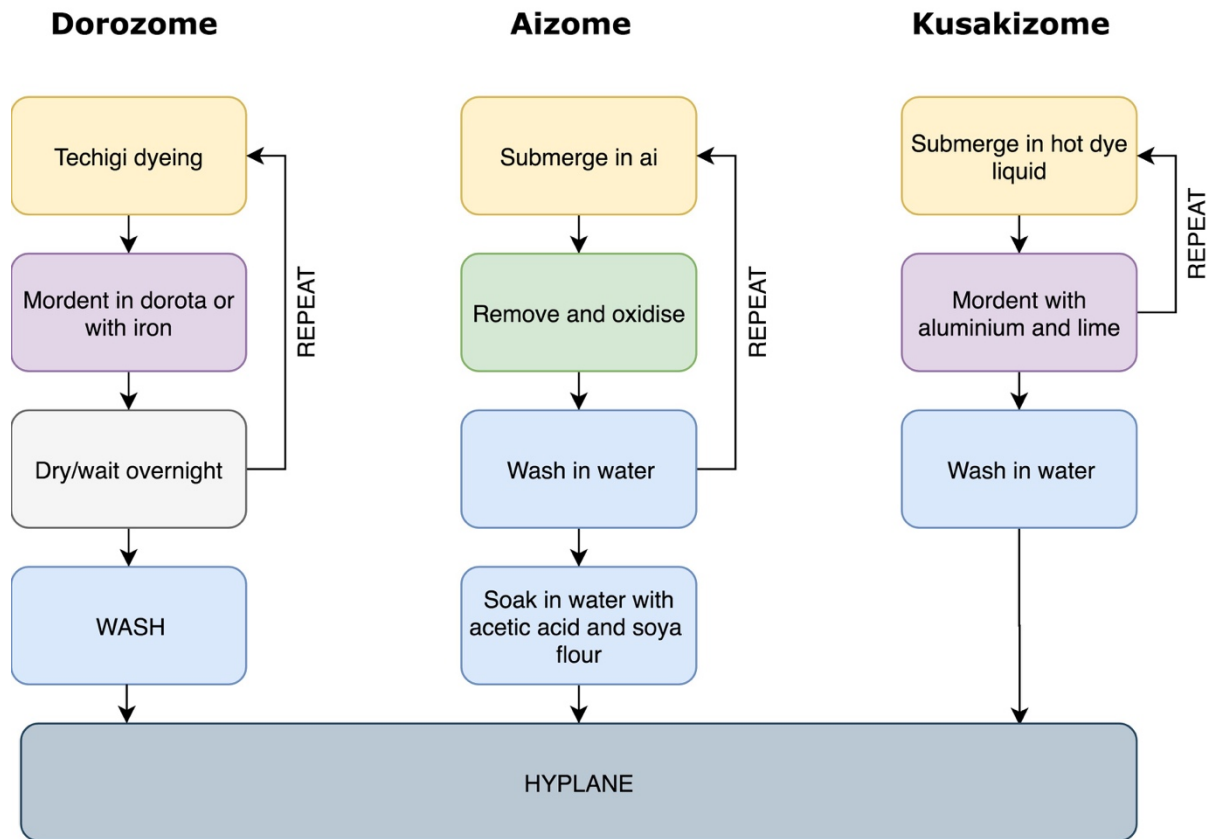


The unpublished manuscript of *Tattooing in Amami Ōshima* is among the Douglas Haring Papers. The book by Fumitake Yamashita is available in Japanese but the archive papers include a letter of rejection for the English translation from the publishers at the Smithsonian Institute in Washington D.C in 1952, citing a lack of interest in tattooing. Although it would be difficult to prove direct connections, the tattoos bare striking similarities to *Oshima tsumugi* patterns. As female tattoos were outlawed, might the symbols have moved onto the cloth?

Appendix 3: Map of Kanai Kougei workshops 2017-2018

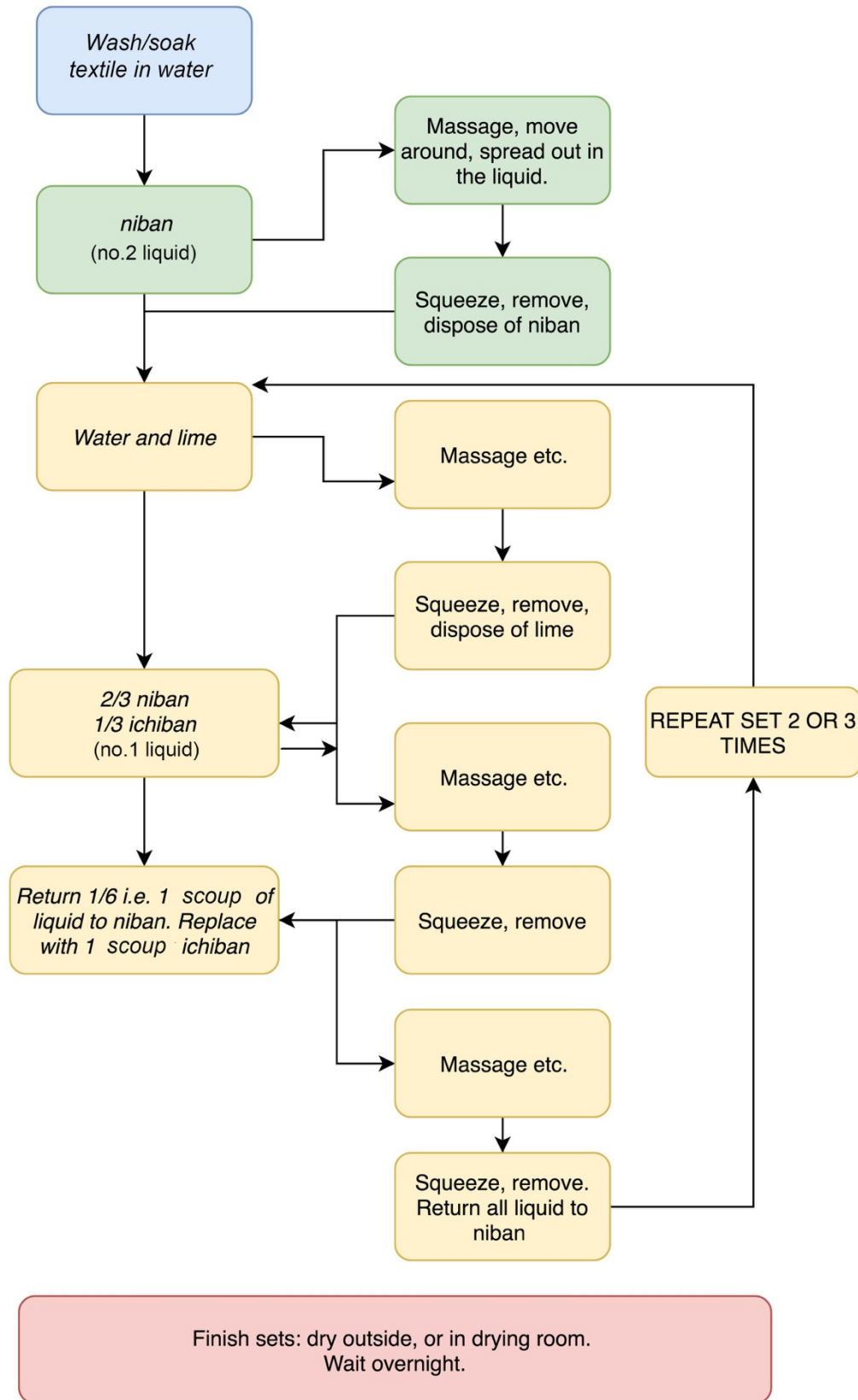


Appendix 4: Dyeing processes



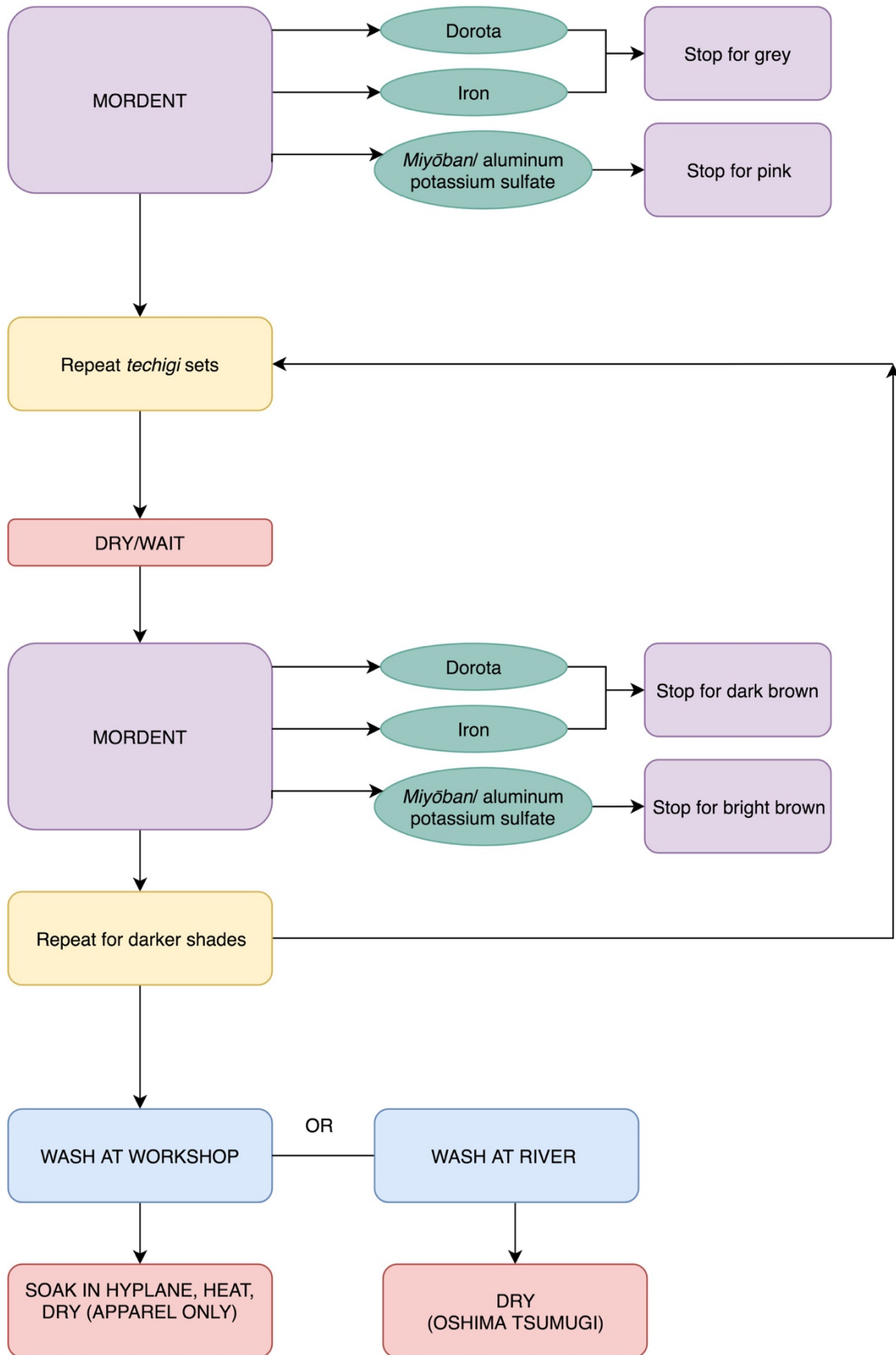
Basic dyeing steps for *dorozome*, *aizome* and all other *kusakizome* including *fukugi*, madder, etc.

STEP 1 *techigi*:



Detailed directions for Dorozome process with *techigi*

STEP 2, mordent:



Dorozome process - applying mordent