

Islands of Kagoshima Prefecture:
impressions of a Pacific geographer

鹿児島県の島々－太平洋の地理学者の印象－

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Abstract

There are many similarities between the islands of Kagoshima Prefecture and those of the more remote tropical Pacific, such as those in the Fiji group and Niue. Some of these similarities are highlighted in a narrative arising from the author's time in all these areas. Key areas of comparison are sugar and tourism. There are also similarities in the history of these islands, illustrated here by the first human arrivals and by the effects of the AD 1300 Event. Finally there is a discussion of the comparative awareness of these smaller island communities to climate change.

Introduction – comparing Japan and Fiji

After spending two months in Kagoshima on large Kyushu Island, indistinguishable from living on the edge of any continental landmass, arriving at Yoron Airport was like returning home. The familiar signs of any small Pacific Island were all around. The rusted chasses of ancient minibuses, almost certainly illegal and likely to be pounced upon by traffic police on the Japanese mainland. Here such vehicles must be viewed more indulgently by law enforcers, cognizant of the difficulties and costs involved in maintaining vehicles to mainland standards on a smaller island.

These days, Pacific geographers prefer to avoid the adjective “small” in reference to an island. What is a “small island”, what is a “large island”? The terms are meaningless, instinctive only by the crude standards of thoughtless continental dwellers, and UN officials for whom classification is a necessary preliminary to decision-making. But for the people who live on a smaller island, it only adds to their sense of isolation and marginalization to be told that in fact they occupy a “small” island. It reduces their self-esteem. Conversely, when in the mouths or from the pens of continental dwellers, the term “small islands” unduly amplifies the importance and the significance of

continents, aggrandizing their inhabitants. So now, we prefer to talk of “smaller islands” and “larger islands”, terms that being relative give no offence, intended or otherwise, to their people.

Yoron was a smaller island than I had been on for a long time. I live in a world of islands, in the South Pacific, specifically in the country of Fiji. The South Pacific is a vast region, at least one sixth of the entire Earth’s surface, yet regarded as little more a quaint backwater by those who oversee world affairs. Fiji, the country in which I have lived for more than 21 years, is a myriad of islands, an archipelago. There are more than 300 islands, it is said, but including all the little pieces of rock that poke their heads above water at high tide, there are probably closer to 30,000. But only around 90 of those islands are inhabited, mostly by people whose closeness to nature is a function of their dependence on the natural environment.

Fiji is similar to Japan in many ways. Most people live on the largest islands – in Fiji, Viti Levu Island, and in Japan, Honshu. On Viti Levu, there is most economic activity – commercial mechanized agriculture, manufacturing – while elsewhere in the archipelago there is hardly any of this. The only university is on Viti Levu, the only McDonalds and Kentucky Fried Chicken are on Viti Levu, most murders are on Viti Levu. These are the ways that “development” is perceived and articulated by many people living elsewhere in Fiji. On the smaller Fiji islands, the people talk quietly in the evenings about the disparities in “development” in the country, envious of the advantages of Viti Levu yet chary of the problems it is experiencing. And the people who live outside Viti Levu are those who remember and cherish the “old ways” - the ancient chants and dances, the time-consuming skills of mat-weaving and masi-making, the traditional values – all forgotten by most of the younger, more sophisticated generation.

I sense that it is much the same in the smaller islands of Kagoshima. I walk around Yoron, seeing the shops full of locally-manufactured handicrafts – the products I assume of the evening labour of older people, sitting about chattering in the company of each other. I see the sweet potatoes, and the incredible number of products that are made from them, and envy the ingenuity of the Japanese for in Fiji, there is so little imagination in the development of products from natural foods.

I walk into shops on Yoron, there is nobody in sight despite the inevitable tinkle of the bell as I enter. I walk around undisturbed looking at what is on sale. I try several hats on before choosing one to buy. There is no price marked. I move to the check-out and clear my throat several times before the shopkeeper finally emerges, full of jovial greeting, glad to see a customer on such a dreary day. The experience reminds me of Fiji. In the smaller shops on smaller islands, the experience of shopping is often just the same.

As I walk beyond the town limits, into the countryside of Yoron, people in the fields, hacking a living out of the resisting soil with their arms, stop and wave at me. The typical welcome of people on smaller islands, delighted to see a stranger on foot pass by. In Fiji too, those tending their gardens would also stop and greet a stranger. If conversation ensued, this would likely be followed by an invitation to share some tea – hot and sweet and bitter – to offset the effect of the sun’s unsparing heat. And when you were leaving their house, ashamed at having nothing to give in return, so your host will press bags of fresh peanuts or a pineapple into your hand – the proud result of his toil, rewarding you for your visit. I sense it would be the same in Yoron.

From my hotel window on Yoron, I see the sugar mill, belching out black smoke day and night. A continuous murmur of throbbing machinery in the distance, mixing with the wash of the waves against the shore below my balcony window. Later I travel to Yonaguni Island, and here I stay in a hotel far from the sea but adjoining the sugar mill. The mill is never quiet during my stay, its sounds dampened only by the rain that falls almost constantly.

Like many of the islands in the Ryukyu group, the principal agricultural export of Fiji is sugar. It grows in sugar cane that dominates the lowland landscapes of the drier parts of the islands, in much the same way as it dominates the lowlands of Yoron and Yonaguni. The rows of cane are like ranks of soldiers, stiff and motionless, on parade in the landscape of smaller islands where other options for commercial agriculture are limited. Many islands in the Ryukyus have their own sugar mill – there is no choice because the cost of transporting the unprocessed sugar cane across the ocean is prohibitive. But in Fiji, there are just four sugar mills. Three are (of course) on Viti Levu, and the other is on the second largest island, Vanua Levu. For the other 88 inhabited islands in the Fiji group, there is no sugar cane grown. No mill, no cane.

So these smaller islands are excluded from this type of commercial agriculture because of their size. This is where the Ryukyus are presently different, although one day if the mill breaks down and cannot be repaired, the same situation may follow.

Farming sugar cane is hard work, and gives comparatively poor financial returns. I am sure that much of the sugar from Yoron goes to the domestic market (in Japan) and is protected by government edict from competition from elsewhere. But Fiji is less fortunate.

For many years, Fiji sugar was protected. The European Union bought it, guaranteeing a price as much as three times that which it would fetch on the open market. Fiji sugar-cane farmers did not know how lucky they were, benefiting from this indirect aid. They planted their sugar cane anywhere it would grow, up the slopes, on the hilltops – economic demand drove unsustainable farming practices. A familiar story.

But now things have changed for Fiji sugar. The EU subsidy is being withdrawn. Fiji sugar will have to compete on the open market, and that will be almost impossible because labour and manufacturing costs are so high compared to those where sugar-cane harvesting is mechanized.

Of course, there are some signs of mechanized agriculture on Yoron and Yonaguni, but not as much as I expected. Everywhere I see people walking and working in their fields, a few tractors sitting idle, but no giant harvesters like those that work the cane fields of Queensland (Australia).

Tourism

So when the day comes, when the sugar mills shudder to a final halt on Yoron and Yonaguni, what will replace them? Something needs to replace them, otherwise people will desert these islands forever. In the central Pacific, there is an island called Niue, an independent state, home to around 900 people, but in “free association” with New Zealand. So many people have left Niue over the past 30 years that there are now 15 times more Niueans living in New Zealand than there are on the island. There is a sign at Niue Airport – “would the last person to leave please turn off the lights” – a wry comment on the rate of depopulation, and its likely future consequences.

Tourism is a possible way of revitalizing the economy of Niue, just as it is on Yoron and Yonaguni. But the challenge is great. The only way to reach Niue is by air from New Zealand or Tonga, and this is expensive. It is as cheap for a New Zealander to fly to Los Angeles. The quickest way to reach Yoron is by air from Kagoshima or Okinawa, but for someone living in Tokyo or Osaka, it is cheaper to fly to Guam.

But access is only part of the problem. There have to be things that attract tourists to islands like Niue and Yoron. On Niue, the New Zealand government has funded a comprehensive tourist infrastructure. You can drive around the island stopping at countless places to read information signboards, there are guided tours, plenty of information brochures, but few tourists. I have been twice to Niue, both times probably only one of about six tourists on the island. There are two large hotels, several guesthouses, most of which are always almost empty. You need to tell a hotel 24 hours in advance if you want to eat there, so they can buy the food and prepare it.

There are similarities with Yoron. A abundance of hotels, of maps, of brochures advertising fishing, diving, swimming – but few tourists. Of course, unlike Niue – located firmly within the tropics – there are seasons on Yoron, and the tourism season had clearly not arrived when we were there. But the point is valid. Much of the tourism infrastructure on Yoron is falling apart. Despite the valiant attempts to boost tourism, visitors will just stop coming because there are cheaper and more attractive alternatives. Just like Niue.

First arrivals

Flying over Yoron on the way in to land, I began to think about the first people to arrive there. Perhaps they were courageous ocean voyagers, like those we assume to have settled many tropical islands in the remoter parts of the Pacific, their little dugout canoes bobbing wildly in the ocean swells as they paddled onshore. But this is probably untrue.

The tropical islands of the South Pacific, from Solomon Islands through Fiji to Tonga and Samoa, were settled first by a group of people we know today as the Lapita people. Their ocean voyages were far longer – more than 1000 kilometers – than anyone on Earth had ever succeeded in before. And the Lapita people made beautiful

earthenware (pottery), decorated with intricate and puzzling patterns. They were an extraordinarily advanced, yet neolithic people.

The Lapita people came from the part of the world that we know today as southern China and Taiwan. Their ancestors travelled south from this area, driven out from rising sea level, reaching the Philippines, Indonesia before settling finally in the Bismarck Archipelago of Papua New Guinea. It was here – in an equatorial belt where there are no typhoons (tropical cyclones) – that they developed the seafaring skills necessary to colonize the islands to the east, islands that were separated by much greater distances than those through which they had passed. And it was in the Bismarck Archipelago that the Lapita culture developed, about 3500 years ago.

The first people to live on Yoron probably did so much earlier than the Lapita people appeared as a distinctive cultural group. In fact, the islands of Kagoshima may at that time have been a much larger landmass, part of the Asian mainland. Around 18,000 years ago, the sea level in the western Pacific was about 120 meters lower than today, and Japan was connected to the Asian mainland in at least two places. But as the ice sheets melted, and sea level rose, so these connections were severed. Japan become an island nation, its people changed from being “mainlanders” to being “islanders”.

As mainlanders, people living in Japan would have had access to a range of continental food sources, and it is likely that marine foods would have had a smaller role in their diet than when they became islanders. For island people, especially those living on smaller islands, are ever aware of the ocean. Interacting with the ocean is natural and normal and expected. But the mainland East Asians at the end of the Pleistocene, about 15,000 to 12,000 years ago, were much less familiar, it seems, with ocean foods. The deposits in the caves they occupied suggest a lifestyle based on gathering wild foods (grains and berries) and hunting large terrestrial animals. Perhaps it was the sea-level rise that forced people’s attention on to marine foods.

The first people to arrive in Fiji, perhaps 3200 years ago, were hungry. They had exhausted the food supplies they had brought with them, and sought places to live where there was a large and productive fringing coral reef. From these reefs, they ate an abundance of shellfish, they ate fish – they were wholly dependent on marine foods. They appear to have interacted very little with the land. Possibly they even lived on

their boats for many generations before finally moving onto the land and building houses. Here we have the reverse situation to Japan – in Fiji, “sea people” gradually became “land people”. In Japan, far earlier, “mainlanders” became “islanders”. Different origins, similar outcome.

The AD 1300 Event

In Fiji, in fact throughout the higher island groups of the tropical South Pacific, there was a major change in settlement pattern just after AD 1300. The coastal lowland settlements were abandoned and, for the first time, upland hilltop settlements were established. This was a time of war, of conflict, brought about by an environmental crisis known as “the AD 1300 Event”.

Around AD 1300, the temperature in the tropical Pacific fell, causing the sea level to fall by 50-80 cm. For island dwellers in the central Pacific, this was a disaster because the sea-level fall exposed the most productive parts of offshore coral reefs, killing the organisms that lived there, and reducing the amount of food available from ocean sources. It has been estimated that the AD 1300 Event led to an 80% drop in food resources on many islands in the region. On a smaller island (rather than a larger one), this will quickly result in competition between people for the remaining food resources, and naturally that competition will become violent when starvation threatens. So the people abandoned their unprotected coastal settlements and fled to the inland upland areas (sometimes even smaller islands offshore), seeking out the loftiest peak on which to re-build their settlement. They enhanced the natural protection of this settlement with stone walls and ditches. They built “castles”.

Of course, they were not castles in the sense that the word is understood in the rest of the world, but they served a similar purpose and were located in similar positions. In Fiji, such “castles” have no generic name. Often they are simply referred to as *koroivalu* (settlement of war) or *koromakawa* (ancient settlement). In New Zealand, the first European visitors reported that the Maori mostly occupied similar upland fortified settlements called *pa*. All seem to have been established at about the same time – shortly after the AD 1300 Event, typically between AD 1400 and AD 1500.

In Japan, there is evidence that the AD 1300 Event had similar consequences to the rest of the Pacific. Much castle-building appears to have taken place in the period AD

1400 to AD 1500. On Yoron, the remains of the castle on the highest point of the island dates from just that time. If the model of the AD 1300 Event applies to the coral-reef zone of Japan, particularly its smaller islands, then this is expected.

Climate change

People who inhabit smaller islands are often more vulnerable to the vagaries of weather and climate than those on larger islands, where daily life is often less closely linked to natural forces. The AD 1300 Event is a good example of a climate change that caused a sea-level change that caused massive and enduring changes to Pacific Island societies.

On Yoron and Yonaguni, walking along island coasts, one is aware of how uneasy is the relationship between the present islanders and the ocean. Everyone is concerned about the guns that China points at Taiwan, a sign of a uneasy relationship. The same is true of the giant tetrapods that line the shore along the most vulnerable parts of the Yonaguni coastline. At the moment there is an uneasy truce.

Most Pacific Island nations (like Fiji) cannot afford giant tetrapods. Archipelagic nations are generally poor, both reasons why such “big-fix” solutions to coastal problems are usually beyond their reach. But there are natural forms of coastal protection that should be encouraged, such as mangroves. Mangroves are an alternative to tetrapods – a much more environment-friendly solution, that actually boosts coastal ecosystems rather than atrophying them, cloaked in concrete.

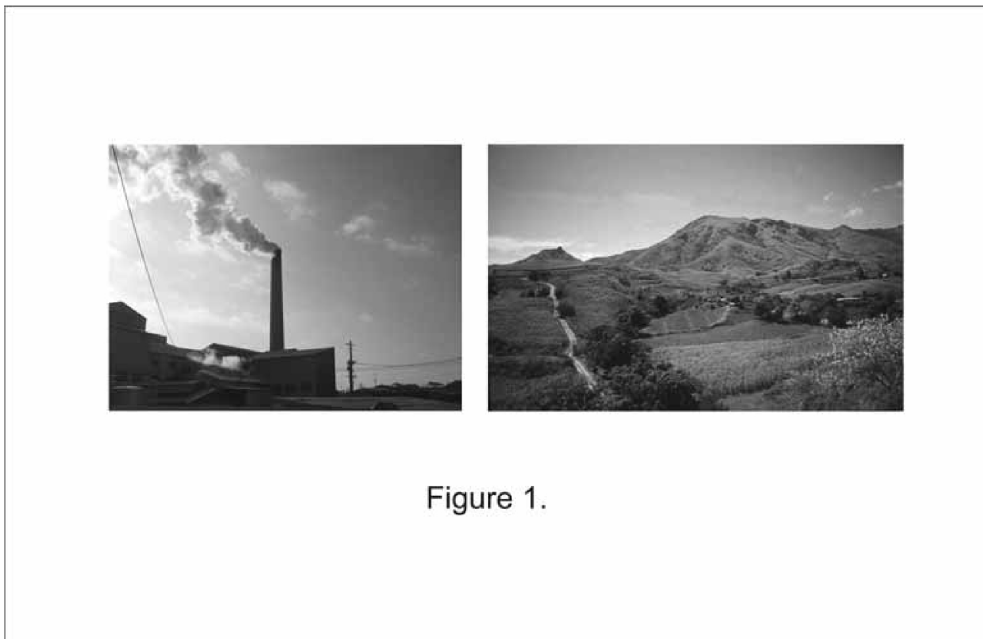
Pacific Island countries are worried that sea level will rise in the future, disrupting their efforts at economic development. Sea level will almost certainly rise, probably by around 30-50 cm in the next 50 years, and this will inevitably disrupt the way of life of many people across the world. People living on smaller islands are especially vulnerable to sea-level rise, because their coastline is so long. Not only is the coastline long, but it is commonly the place where most people live and where most economic activity is located. This is as true of Yoron and Yonaguni as any island in the Fiji group.

On Yoron and Yonaguni, most people live near the coast. Sea-level rise will force many people to move elsewhere. Sea water will replace freshwater in the groundwater, causing lowland crops to grow less well. In Fiji, both these things are already

happening. Villages are moving inland where they can, or else being squashed into increasingly narrow coastal flats. Salinization of lowland groundwater is causing crops to wither, it is causing the sugar content of the cane grown in such areas to fall, reducing financial returns.

In the future, sea-level rise will force a radical re-organization of the geography of smaller islands. In Fiji and Yoron, whole areas of coastal lowland may become unusable and will be abandoned. People may use this as a reason to leave smaller islands for larger islands. Shorelines move, people move.

Figure captions



Sugar in Japan and the Pacific. The photo on the left shows the sugar mill on Yoron Island, a vital part of the island's economy. The photo on the right shows sugar cane growing on Viti Levu Island in Fiji, on much steeper slopes than is sustainable.



Figure 2. Tourism in Japan and the Pacific. The photo on the left shows a hotel beach on Yoron Island, its lack of occupation reflective of the difficulties of attracting tourists to smaller islands. The photo on the right shows the Talava Arches on Niue Island, a key landscape on this island also trying to attract tourists.



Figure 3

Coastal protection in Japan and the Pacific. The photo on the left shows the giant tetrapods along the coast east of Sonai on Yonaguni Island. The photo on the right shows a mangrove replanting scheme at Yadua Village on Viti Levu Island in Fiji.