### The Rereading Resource Process (資源再読): Memu Earth Lab Landscape Design Workshop

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#### Introduction

I (main author, Endo) have taught landscape architecture at the National University of Singapore (NUS) for more than four years. This teaching experience has guided me to realize the importance of first-hand experience, and how it brings light to student's learning. This principle facilitates students' full body and sensory engagement with the subject matter. More technically, in "embodied learning", students who consciously use their bodies to learn are more engaged than those who are at a desk or computer (Paniaguai et al., 2018). It resonates well with landscape architectural education where the learning focus is on aspects that are emotional, physical and creative, more so than cognitive. This belief derives from the fact that my teaching has always been centred around landscape construction, site engineering, and landscape design studios; all of which are applied subjects that require strong sensitivity in the spatial and physical context. Therefore, it is my hope that my students will become knowledgeable professionals who make sound design judgement based on their actual experience in the real world in the future, when our lives are more mixed with virtual reality, Al generated texts and images, simulated materials, and so on. In those scenarios, what is it that one can trust in the end? It must be something that your body has experienced.



Fig 1. Magnificent landscape of Taiki Town, Hokkaido (Image credit: Kenya Endo)







Fig 2. Examples of Embodied Learning (Images credit: Kenya Endo and Ziyuan Zhang)

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This was possible because we were able to step away from our daily routines completely, to immerse ourselves in an environment where the interactions between people and nature are much more intimate. Memu Earth Lab in Taiki Town, Hokkaido, Japan was a place where I could practice my teaching belief, "embodied learning". The lab prototypes new forms of experimental infrastructure for various kinds of grounded research (Memu Earth Lab, n.d.). Its past projects have engaged architects, ecologists, and sound artists. I decided to plan for a trip where students majoring in landscape can benefit. This is a good opportunity for them to explore outside the classroom setting, and to be exposed to cool temperate climate, local food, lifestyle, and allow Hokkaido's natural environment and cultural practices drive their perception, realization, and inspiration.

#### **Designing the Workshop**

In the summer of 2023, a total of 14 students (7 each from NUS and the University of Tokyo) visited Taiki Town in Hokkaido. The 10-day workshop aimed to re-examine our urban lifestyles through understanding the local resources and natural environment. Unlike a typical spatial design exercise, the workshop took critical views on how we live our lives in Singapore/Tokyo. This was possible because we were able to step away from our daily routines completely, to immerse ourselves in an environment where the interactions between people and nature are much more intimate. We incorporated onsite activities that allowed the students to engage with local residents, various industry operators, as well as visits to natural and cultural heritage sites.

The trip had a good mix of students with different training backgrounds, from landscape design, urban planning, to sustainability science. As a result, we had fruitful multidisciplinary conversations that addressed emerging topics in the world, with grounded approaches and responses.

The workshop adopted a framework comprising the following processes.

#### Process 1: Read

During this process, students will understand the site context via online sources, maps, readings. They would define the topic/theme as a group and question what makes the site unique, what types of natural elements have influenced the way people live their lives, and how it has changed over time.

#### Process 2: Re-Read

Here, students will visit the site. They will embrace the environment with their five senses (seeing, tasting, hearing, touching, and smelling), and through dialogues with residents. By analysing the flow of resources, interplay between man and nature, they will unfold the potentials (or challenges) of the site.

#### Process 3: Question-Raising & Responding

In this final step, students will convert the inspiration and learnings from the site into questions; a series of constructive questions that bridge Taiki Town's experience with their own living environment. Through an in-depth self-reflective process, the overall goal is to develop critical perspectives on the way cities are operated, and how they live their lives within.

#### Site

Memu 芽武—where "ponds and lakes are formed by groundwater springing" in Ainu tribe language. Memu Earth Lab is located close to the southern tip of Hokkaido, where mountainous terrain ends, and flat agricultural fields extend towards the Pacific Ocean. It has a population density of 6.66 people per square kilo meters and dairy farming and fishery are its two main industries. Memu Earth Lab, a former racehorse farm, was started in 2011 as a research institute to study housing for cold climate zones, given the fact that January's average temperature can be as low as -9 Degree Celsius.

Figure 4 illustrates the site context and excursion routes.

Fig 3. Examples of Embodied Learning (Images credit: Kenya Endo and Ziyuan Zhang)







#### Fig 4.

Context of Memu Earth Lab (Image credit: created by Kenya Endo with Google Earth aerial image as a base)

We identified four key focal areas to be studied, namely, "Food", "Color", "Night", and "Boundary". In this essay, I will focus on "Food" and explain each process of analysis from the perspectives of students.

#### Read-Intersection Between People and Wildlife

A number of online photos of Taiki Town illustrate the rich and diverse natural environment of the Tokachi Plain and the Pacific coast of Southern Hokkaido. A landscape consisting of woodlands, grassy fields, estuary, lagoons, and marine ecology, hosts a great number of wild fauna and flora in the region. And the experience of encountering such free-ranging wildlife is different from the animals we see animals in zoos, aquariums, or books. The proximity must play a crucial role in defining the relationship between people and wildlife. We examined how the intersection looks like, especially at a town whose local industry relies heavily on harvest from land and the sea.

#### Fig 5. Taiki Town's local industry; fishery, forestry, and dairy farm (Images credit: Ziyuan Zhang)





Fig 6. Coastal habitats and vegetation (Images credit: Ziyuan Zhang and Alyssa Tee)

The most common intersection is when we view wildlife from the lens of "natural resource". It is interesting how our perception towards such innocent creatures changes suddenly when we consider them as part of industry. Take fish for an example. Once the fish is caught from the sea and transferred into an economic mechanism, they seem to lose their one-and-only-ness. In other words, one life of a fish becomes meaningless, but the collective mass starts to matter as an index of productivity. A group of fish is thereafter, translated into economic values based on their rareness and whether they are consumable, and furthermore, its meaning is changed to "food".

Starting off the concept of "intersection", some of the discussion during the pre-study period was the realization of how city dwellers (such as in Singapore and Tokyo) are distanced from wild animals and plants. Fish products we see at supermarkets in cities, for instance, are typically sliced and processed, and it is almost impossible to reimagine its original shape. We cannot tell how they actually swim in the ocean. Another example is bread; we don't question how wheat looks like when we eat bread, and how it grows in the fields.

The process of producing and distributing mass amount of food to consumers effectively must have made it rather difficult for us to trace back the origins of them and what hidden processes it took before delivered to our table.

#### **Re-Read**

The field trip and interviews with the locals in Taiki Town, however, tell us a different story. The process of transforming wildlife into a "dish on a table" is rather transparent, and one can see through the interactions made along the way. For example, we heard how the hunter Michina-san "learns about nature through deer hunting and dismantling". This point implies that there is a "silent dialogue" between the hunter and the hunted, and the process of killing a deer is not a one-way action. Similarly, dairy farmer Ryota-san takes care of his cows on a daily basis with animalwelfare in mind, and describes how milk's color and texture changes according to weather conditions. In addition, Memu Earth Lab's chef Tsukasa-san thinks carefully about recipe that takes the best out of local harvests every day and every season.

From these conversations, we understood that the process of harvesting, and preparing it to become a food on the table is a long relay of care and respect.

Another interesting case that we noticed in the local market is that most of the vegetables are sold with the producers' photographs, together with tips of how to eat them tastefully. The proximity of producers and consumers also makes the action of "eat" a more meaningful experience than how we do in cities.

#### Question Raising—What Does Food Mean to Us?

After the field work, site observation, and most importantly, tasting the locally harvested food every day, we have come to question, "what does food mean to us? Do we enjoy eating the food we have in front of us?"

A simple answer to this question is from its physical aspect; food is the energy source to sustain our lives. But, the experience in Taiki Town unlocked more ways to approach this guestion. How about its mental and social aspects? We have observed multiple cases that food was a connector between people and people. As we have seen in the previous section, the preparation of a meal is rather a long process that involves many "silent dialogues". This is how we realized that food can be the media to nurture communication and bring people together with joy. We can easily anticipate lots of conversations like, "where was this ingredient harvested?", "how was it cooked?", "this year's harvest is lower than previous years'", etc., taking place very commonly in Taiki Town. The more voices like these, the stronger the food identity of the region will become.

#### Response

To take things more critically, are we fully making use of the potential that food has in bridging people and people? Living in large cities like Singapore and Tokyo, it is very common that we cannot see the producers' face. We are probably too busy to pay attention to the food that we eat. Do we remember what we ate this morning, and do we care about where the ingredients come from, as well as who prepared the dish for us? What are the consequences waiting for us, if we are blind to what we eat?

The literacy towards food will be difficult to inculcate, living in a condition where we tap our smart phones and just wait for our meal to arrive. We can order groceries without checking how they look like or come from. In such society, we may not be eating with joy because we are simply "fed". Being blind to what we eat can also lead to other consequences; we may lose the appreciation for food, which leads to more food waste. We may become insensitive to taste or indifferent to farmers, so that cost becomes the only factor for deciding what to buy.

#### Fig 7. Deer disassembly by local hunter (Image credit: Ziyuan Zhang)



Fig 8. Harvesting wild mushrooms in the woods (Image credit: Ziyuan Zhang)



Top / Fig 9. Memu Earth Lab's chef preparing food freshly harvested nearby (Image credit: Ziyuan Zhang)

Bottom / Fig 10. Dishes of the night (Image credit: Ziyuan Zhang)



How then do we mitigate the gap between convenience and sustainable consumption? Some digital technologies allow this to happenfor example, food subscription services, chatting service with producers. These existing platforms should help us reestablish the relationships with producers or raw ingredients even while living in cities. Concepts like farm-to-table has become a trendy movement in cities like Singapore too. Indeed, technologies and ideas can contribute to shorten the physical distances between producers and consumers, however, it is not exactly the same as the case in Taiki Town. In Taiki Town, there was a live interaction between people and people as well as between people and wildlife, over the course of harvesting, food preparation, and dining. Therefore, it is useful to look for new approaches that help recover the connections that we might have lost in our urban lives.

#### Key Takeaways

In reflection, the students highlighted the rare experience in Taiki Town—encountering fauna & flora as they exist in the wild, their disassembly and preparation processes, and the joyful dining experience. During the workshop, they had many occasions to compare and question the food situation in our normal lives. For example, in Singapore, where more than 90% of food is imported (Singapore Food Agency, 2022), we hardly question where the food comes from and how they are distributed to our nearby markets. We have also come to realize that instead of each ingredient, perhaps the importance of Singapore's food culture is placed on its diverse cooking methods.

In recent Singapore's urban and landscape planning, there are initiatives that activate interactions with nature and local communities through food, and food production. The promotion of "30 by 30"; a vision of producing 30 percent of Singapore's nutritional needs by 2030 can be seen as one. Notably, the ongoing Lim Chu Kang Master Plan by the Singapore Food Authority challenges how food production facility can connote as public grounds for recreation and engagement (Tan, 2023). The Gardening with Edibles program by National Parks Board from 2020 is another, which invites Singaporeans to grow edibles at home, amid the social changes caused by the pandemic (Sia et al., 2023).

In relation to the findings from the workshop in Taiki Town, the hints for long-term sustainability of such initiatives could be the engagement by the general public. Food as we know is grown almost in a black-box condition by anonymous operators, but it does not have to be so entirely. I echo the actions initiated by the government to stimulate a gradual shift to enhance transparency, and to increase opportunities for the private sectors, various professionals, and farming-enthusiasts to participate. Beyond that, what would "you" do to make a change?

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#### Fig 11.

Diagram of food supply around Memu Earth Lab, illustrating the proximity between producers and consumers (Image credit: created by Alyssa Tee, Lipeng Zou, Aoi Morita, and Mengqi Liu)



Fig 12.

Sharing and discussion session with NUS and University of Tokyo students (Image credit: Hiroto Harada)

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