Introduction to the Connectivity of Hills, Humans and Oceans (CoHHO\*) Vol.6: Interaction between humans and nature III

\*We call it "Mori-Sato-Umi Renkan-Gaku" in Japanese.

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#### 10. The Kibunka Project (The Wood Culture Project)

Since its foundation, the Field Science Education and Research Center ("FSERC"), Kyoto University, has attempted to obtain research funds for research of the Connectivity of Hills, Humans and Oceans ("CoHHO"). In 2009, we received funds to study local societies based on ecosystem services in a forested watershed environment ("The Kibunka Project" (The Wood Culture Project)). The study was carried out between 2009 and 2013 and the research fields of the project were the Yura River watershed in Kyoto Prefecture and the Niyodo River watershed in Kochi Prefecture.

The purpose of the Kibunka Project was to establish a model of a sustainable wood culture society based on CoHHO, supported by local forest ecosystem services and economy. We investigated the environmental effects caused by forest management, such as thinning, and changes in the local economy due to the distribution of thinned timber, etc.

Although we have not yet drawn a model of the Kibunka Project, we gained many insights during the five-year project. These findings include the relationship between forest operations, land use and stream water quality, coastal phytoplankton and fish production. We elucidated the effects of land use and land cover in forests and villages on the water quality of rivers and the supply of substances to the sea. For example, Professor Yamashita introduced in this series how nutrients and particles are supplied from forests to the sea. We also showed that human impacts, such as land use and land modification largely influence material cycling in the Yura River watershed. In the Kibunka Project, we also conducted a social survey using questionnaires. "The awareness survey on the use of ecosystem services in the forested watershed" (awareness survey) targeted people living in the Yura River and Niyodo River watersheds (consumers of forest resources). "The questionnaire about life based on the forest" targeted forest union members (forest owners). People's awareness about forest resources surveyed in the Kibunka Project will be presented in the following sections.

#### **10-1.** People's awareness of forest resources

In the awareness survey, we asked people about their commitment to products made from domestic timber, their image of domestic and imported timber, and their concerns regarding logging artificial forests. We also applied a conjoint analysis to survey how much extra people are willing to pay for housing made of domestic timber.

When comparing the images of domestic and imported timber, most people seemed to think that imported timber is cheap. In contrast, domestic timber tended to be associated with positive feelings, such as good looking, comfortable touch, durable, pleasant fragrance, ecoand body-friendly (Fig. 1). This suggested that the majority of people have a positive image of domestic timber (CoHHO project support office 2011).

We asked Japanese people (residents in the Yura River and Niyodo River watersheds) how particular they are about using domestic timber for various products. Most people preferred domestic timber for tableware and durable consumer goods, such as housing pillars, interior materials and furniture. On the other hand, they were not so particular about consumables, such as disposable chopsticks, pencils, paper products and fuel (Fig. 2).



Fig. 1. People's images of domestic and imported timber (CoHHO project support office 2011)

https://fserc.kyoto-u.ac.jp/proshien/kibunka/shiryo/ynreport.pdf



Fig. 2. Preference for domestic timber in different products (CoHHO project support office 2011)

https://fserc.kyoto-u.ac.jp/proshien/kibunka/shiryo/ynreport.pdf

In addition, we used a conjoint analysis to estimate the level of premium that people feel towards a house made of domestic timber. The conjoint analysis was conducted with multiple options (levels) for each of the five features of housing structure (wooden/lightweight steel frame), floor area, domestic timber usage (volume), durability, and price. As a result, it was suggested that the price of a house that used 1 m<sup>3</sup> more domestic timber for the pillars and/or interior materials could be 3 million yen higher (Fig. 3).



Fig. 3. Willingness to pay for 1 m<sup>3</sup> of domestic timber use in housing for different respondents (modified from Okawa et al. 2013)

This price was ridiculously expensive (roughly several tens of times higher) compared to the actual transaction price of domestic timber. However, we can still compare the relative differences in the valuation among different respondents.

People living in wooden houses showed a higher premium price for domestic timber compared to people living in non-wooden houses (3.85 million yen/m<sup>3</sup> vs. 1.18 million yen/m<sup>3</sup>). Moreover, people who are concerned about the forest found the value of housing with domestic timber higher than those who are not concerned about the forest (3.52 million yen vs. 0.74 million yen). These results suggest that events and education that raise people's interest in forests might increase their willingness to buy houses that use more domestic timber, and thus lead to an increase in the self-sufficiency rate of timber. Although more detailed market research will be necessary for the national government, local governments, and even construction companies to expand the use of domestic timber for housing construction, the results obtained from the awareness survey may be useful for policy making.

Using cluster analysis, the respondents in the awareness survey were divided into four clusters with similar preferences for each of the above mentioned five features of housing

(Okawa et al. 2013). Looking closely at the preferences of the respondents in each cluster, we were able to distinguish them as follows (Fig. 4):

The cluster 1 was composed of 121 respondents who lived in the middle and lower reaches of the watershed, in their 60s and 70s, mostly unemployed or in agriculture, and non-locals (immigrants to the region). They showed preference towards the use of domestic timber, the size and durability of housing. Although they were not particular about wooden houses, the average willingness to pay for domestic timber was 4.11 million yen/m<sup>3</sup>, which was very high compared to the other clusters. Since the respondents' awareness of domestic timber was very high, we called this cluster "status".

	n	WTP	Attributes	Preferences for the house
Cluster 1	121	4,110	Age: 60–70,non-locals Residence: mid-downstream Job: none or agriculture	Domestic timber Space of house, durability
Cluster 2	188	2,630	Age: 50–70, locals Residence: upstream Job: none, agriculture, employee or homemaker	Wooden house
L- Cluster 3	136	2,600	Age: 20–60, locals Residence: upstream Job: none, self-employed, employee or agriculture	not so strong
Cluster 4	174	1,020	Age: 70–80, locals Residence: upstream Job: none or agriculture	Strong for wooden house

WTP: Willingness to pay for domestic timber (1,000 yen/m<sup>3</sup>)

Fig. 4. Results of the cluster analysis (modified from Okawa et al. 2013)

The largest cluster, 2, was composed of 188 respondents. People in this cluster were in their 50s to 70s, lived upstream all their lives, and strongly preferred wooden houses. The average willingness to pay for domestic timber was 2.63 million yen/m<sup>3</sup>, which was the second highest value among all clusters. Because of these characteristics, we called this cluster "tree fans".

The cluster 3 consisted of 136 people. As with the cluster 2, they lived upstream all their lives. However, this cluster included relatively young people in their 20s to 60s. They were not particular about housing and the average willingness to pay for domestic timber was 2.6 million yen/m<sup>3</sup>. The cluster 3 was characterized by a slight indifference to houses and trees compared to the other clusters.

The 176 people classified in the cluster 4 were the oldest, in their 70s and 80s. They lived all their lives in the upper reaches of the watershed and were unemployed or in agriculture. Although they were most particular about wooden houses, the average willingness to pay for domestic timber was the lowest at 1.02 million yen/m<sup>3</sup>. The cluster 4 was located far from the other clusters in the dendrogram (Fig. 4). People in this cluster seemed to have different preferences compared with the other clusters. Since they were elderly people who had lived in the local area for a long time, it was suggested that they are attached to their familiar surroundings and want to continue living in their current wooden houses.

Although a definitive conclusion about domestic timber use in Japan could not be drawn yet from these results, accumulating information on people's awareness of wooden houses made

with domestic timber may be advantageous for considering measures to expand the use of domestic timber.

#### 10-2. Forest owner's awareness of forest resources

In "The questionnaire about life based in the forest", we conducted an awareness survey of forest owners upstream of the Yura River and Niyodo River watersheds. Members of the Miyama Town Forestry Association and the Niyodogawa Forestry Association were selected, respectively. Forestry associations are usually made up of forest owners. However, many of them no longer live locally, but rather in urban areas.

Conditions needed for private forest management showed regional differences between two forestry associations, but "cost", "manpower" and "operation road" were commonly selected. This suggested that these conditions are indispensable for operating owned forests (Fig. 5). Many owners living outside of town (absentees) also needed "contractor", "future forest prospect", and "future income estimation", as well as the three common conditions mentioned above. Some absentees may have rarely been to their own forests and thus may not be able to locate them. Moreover, absentees may not know what to do with their forests and may want to let someone else manage them.

In addition, we asked forest owners about future or ideal image of forests and found similar tendencies in both Miyama and Niyodogawa towns (Okawa et al. 2013). Interestingly, it was suggested that forest owners expected use values from wood production in their own forests, while they expected non-use values in other forests in the town and in Japan, such as conservation of water resources and the global environment (e.g. absorption of carbon dioxide) (Fig. 6).



Fig. 5. Conditions needed for private forest management (CoHHO project support office 2012, 2013)
■: resident replies,
■: absentee replies.
Left panel: Miyama Town, right panel: Niyodogawa Town.

https://fserc.kyoto-u.ac.jp/proshien/kibunka/Image/121226%20miyama.pdf https://fserc.kyoto-u.ac.jp/proshien/kibunka/Image/130128%20niyodo.pdf



Fig. 6. Forest owner's expectations for their own forests and other forests in the town and in Japan (CoHHO project support office 2012, 2013).

Blue line: own forest, red line: forests in the town, green line: other forests in Japan. Left panel: forest owners in Miyama Town, right panel: forest owners in Niyodogawa Town.

> https://fserc.kyoto-u.ac.jp/proshien/kibunka/Image/121226%20miyama.pdf https://fserc.kyoto-u.ac.jp/proshien/kibunka/Image/130128%20niyodo.pdf

### 11. Reconsidering the environmental consciousness

#### 11-1. Inside and outside of environmental consciousness

Results of our awareness survey suggested that people's value of a forest is greatly influenced by people's attributes, such as age, location, whether or not they live in a wooden house, or if they own the forest. We can understand this kind of relationship between people and forests as a positional relationship; or more figuratively, as a sense of distance. Furthermore, if "forest" is broadly replaced with "environment", the sense of distance and the positional relationship between people and the environment may influence their consciousness of the environment and their value judgement. By the way,

#### Do you know the word NIMBY?

This is the English abbreviation for "Not In My Backyard". For example, facilities such as garbage incinerators, sewage treatment plants, and slaughterhouses are indispensable facilities for today's society. Without such facilities, social life would not continue. People tend to agree with a general case, but disagree with specific cases.

#### "I definitely don't want nuisance facilities near my house."

This expresses a residents' consciousness towards nuisance facilities. It is also called a resident's ego. The word "nuisance" itself already shows people's consciousness.

#### What is the difference between the vicinity of my home and the rest?

There may be a difference between "inside" and "outside" of a person's consciousness. The role that forest owners expect from forests (Fig. 6) differed depending on the sense of distance and the positional relationship between themselves and forests. I think this is a sign that there is a difference in people's environmental consciousness between "inside" and "outside". It suggests that what separates "inside" and "outside" depends on whether the environment is close or far from people, whether it is owned or not owned, and so on. Now, I will consider whether a person is "included" or "not included" in the environment.

#### 11-2. What is "Fūkei (Landscape)"?

There is a word "Fūkei" in Japanese, which means a special type of landscape. According to "Environmental philosophy, utilizing Japanese thoughts in the present" written by Professor Toshio Kuwako, a Japanese environmental philosopher, "Fūkei" is defined as "the aspect of historical space that appears sensuously in the arrangement of the body" and it is specified by the arrangement of the body and the historical track of oneself and space (Kuwako 1999). To put it more simply, the landscape perceived at the space where the body is located is "Fūkei". This space does not simply mean physical environments, such as forests, rivers, seas and the sky. It is thought that different history is attached to the physical space. For example, there was a mountain village where fallen warriors of the Heike Clan hid, a temple that was built by some emperor, or a temple where some emperor went to write "Waka" poems. There is also a festival that is held yearly since the Kamakura period, and a hot spring inn where a literary master stayed and wrote a famous novel, and so on. Of course, it may be the town where "I", as the subject of perception, spent his/her childhood, the sea where he/she went on a family trip, or the country he/she had never visited and had just learnt from textbooks. These "things" attach themselves as historical tracks to physical environments. And when "I" arrange the body in the space where physical environments combine with historical tracks, "I" perceive the space as "Fūkei". Isn't it such a complicated way of thinking? I suppose it is because my explanation is insufficient, but the essence of philosophy is to continuously think about "What is the world in the first place, and what kind of position do people occupy in that world?". Therefore, it is inevitable that it gets complicated.

Aside from that, according to Professor Kuwako, the relationship among space, things and "I" emerges immediately the moment when "I" recognize "Fūkei". It's a difficult expression again, but in other words, "Fūkei" wouldn't exist without "I", and "Fūkei" is uniquely created by the relationship among these three parties. The concept of "Fūkei" is quite different from that of landscape. Therefore, an environmental problem is not just that the space such as forests and the sea is damaged, but that the relationship among space, things, and "I", one that is recognized as "Fūkei", is damaged. Therefore, the crisis of an environment ("Fūkei" for some) is also the crisis of "I" (for some). Let's consider it from the viewpoint of whether a person is "included" or "not included" in the environment. Since a person is included in "Fūkei", "Fūkei" is inside the environmental consciousness of "I". With that in mind, it will be easier to understand why NIMBY occurs.

I would like to introduce a short story about "Fūkei", which I heard from a professor. The professor conducted a field survey with a student. When they were relieved from their investigation, they reached a beach. Garbages, PET bottles, pieces of fishing line and styrofoam debris were caught in stacked tetrapods. Seeing many tetrapods on the shore, the professor suddenly muttered as follows:

#### "Oh, what a terrible thing humans are doing to nature!"

If you were that student standing next to the professor, what would you have thought about your teacher's murmur?

"As you say, humans are terrible creatures that just destroy the environment."

"Tetrapods are meant to protect beaches, roads and homes, so we have to accept them."

unem.

"Such concrete lumps should be removed as soon as possible and returned to the original beach."

Various words might come to your mind. However, the student said to the professor: "Professor, you say so, but to me *it's a nostalgic Fūkei (scene) where I played with my* 

#### friends when I was a kid."

The professor told me with a bitter smile, "I was surprised to hear his thoughts." At that time, I realized that "Fūkei"(or the environment) has such a deep meaning for people. I am wondering how I can express the meaning of "Fūkei".

The student might have thought that a natural sandy beach without tetrapods would be nice. He may also have been bitter about the destruction of the environment by humans. Even so, I think there was something that made him feel nostalgic from the depths of his heart, according to the "history of space" and the "arrangement of his body to space". If so, removing tetrapods may be a crisis in his "Fūkei". In other words, it will be a crisis for the student, or "I". But he probably knows it is better to get rid of tetrapods. It can be painful if you think about it too seriously.

#### 11-3. Diversity of the environmental consciousness

From the perspective of "Fūkei", we can understand that people's environmental consciousness is diverse and the reason why it is diverse. In this series, "Introduction to CoHHO: Figure out how they interact with each other (4)", the interaction between humans and nature is discussed using schematic diagrams (Yoshioka 2019). One of the diagrams was also used in "Introduction to CoHHO: Figure out how they interact with each other (5)" (Yoshioka 2021a). "Fūkei" argued so far in this article will be considered using the same schematic diagram in Fig. 7.



Fig. 7. Interaction cycle of humans and nature (Yoshioka 2019 and 2021a)

This whole schematic diagram in Fig. 7 shows exactly the relationship among space, things, and "I", which emerges all at once when "I" recognize "Fūkei". "Recognition of "Fūkei"" may be considered to be partially equivalent to the process (4) "the value judgment of environment". Of course, the process (4) cannot exist independently, and the processes (1), (2) and (3) should also exist simultaneously. We may say that "Recognition of Fūkei" is to recognize the scheme presented in Fig. 7 as a whole (Yoshioka 2021b). The reason why people have different consciousness of the environment is that people's consciousness of environmental qualities and ecosystem services, which is the basis of the process (4) in Fig. 7, is influenced by individual variations in the relationship among space, things and "I". The scenario questionnaire in the previous article of "Introduction to CoHHO (5)" (Yoshioka 2021a) was carried out on the premise that people's environmental consciousness is diverse, and based on the working hypothesis that a common consciousness may be extracted even within the diverse environmental consciousness (Yoshioka ed. 2009). From this viewpoint, I recommend that you read the previous article once again. Please also read the book "Method on surveying people's environmental consciousness—Environmental scenarios and people's preferences" (Yoshioka ed. 2009).

#### 12. Objective of CoHHO studies

#### 12-1. Is there human happiness in CoHHO?

As discussed in the previous article, "Introduction to CoHHO: Figure out how they interact with each other (5), Interaction between Humans and Nature <2>", environmental value is an important viewpoint when considering environmental protection and conservation. However, I have come to realize that we also need ethical considerations. As a contribution to the university-wide common education program at Kyoto University, the FSERC provides lectures and practical training courses related to CoHHO. In addition, we offer many small-group seminars for new students. From 2008 to 2020, I was in charge of the theme "environmental evaluation" and explained the structure of environmental value and methods

of environmental evaluation. I also touched on topics related to ethics, such as anthropocentrism and non-anthropocentrism (see Yoshioka 2021a). Because I am a researcher in natural science, it was very difficult for me to discuss the essence of human values, morals, and ethics. However, I noticed that learning these things is essential for understanding the interaction between humans and nature. I believe that CoHHO studies can be an entrance to the academic field of the interaction between humans and nature.

In the first article of this series, Professor Yamashita mentioned as follows (Yamashita 2019):

"In the 21st century, we have to build a harmonious and sustainable global society. For

that purpose, the philosophy of "overall optimization" is indispensable. In this context,

the "overall optimization" is to maximize "entire lasting happiness and benefit," learning

from the results of the "individual optimization"."

CoHHO studies combine to produce an academic field that considers individual ecosystems and local communities as a whole intertwined system, not as a part. In other words, it has a perspective to optimize the whole, not the part. Although such perspective is necessary for a sustainable society and human well-being, it may be insufficient. Carefully thinking about what "sustainability" and "happiness" is, must be included in CoHHO studies. In other words, the objective of CoHHO studies could be learning what is necessary to sustain the interaction cycle between humans and nature, and how to build human happiness from such a cycle.

Ethics is a discipline dealing with happiness (Miki 2011, Maruyama 2004). Miki (2011) mentions in the section "About Happiness" in "Life Theory Note" as follows (English translation by T. Yoshioka):

"It is modern rigorism that the duty of conscience is opposed to the demand for

happiness. On the contrary, I think that today's conscience is a demand for happiness.

[partly omitted] Is there anything as conscientious as the demand for happiness?" (Miki

2011, p.17-18)

"The concept that the demand for happiness is the motive for all actions was a common starting point in previous ethics." (Miki 2011, p.18)

I used to think that humans do whatever they want in order to be happy. As a result, human behavior is limitless, and humans would destroy nature and the environment. Therefore, I assumed until now that ethics' role is to warn human beings of their own actions and to restrain and restrict human behavior.

Therefore, when I read Miki's "Life Theory Note," I was surprised to know that happiness should be freely demanded and that it follows human's conscience. However, since Miki's original articles were published from 1938 to 1941 before the Pacific War (World War II), happiness and ethics under the social conditions at that time may differ greatly from those in the 21st century. I think we need to be careful in applying the words as they are in the present age. But if it is the essence of ethics to pursue how humans should be in order to harmonize the duty of conscience and the human nature to demand for happiness, we have to think about the duty of conscience towards nature and the environment, which the demand for human happiness leads to. I have come to think that it might be possible to set the objective of CoHHO studies from this viewpoint. This is because humans cannot live apart from space

including forests, villages, rivers, and the sea, and it is the duty of conscience for humans to be happy. There may be a source of human happiness in CoHHO, and it may be possible to clarify this and set it as the objective of CoHHO studies (Fig. 8).



Fig. 8. Objective of CoHHO studies

# 12-2. Study and practice of CoHHO – "CoHHO studies" and "The sea is longing for the forest." –

The idea that the forest and the sea is linked and such linkage supports human life is widely applied in today's social activities in Japan regardless of academic contributions from the FSERC. For example, the activity of "The sea is longing for the forest" in Kesennuma City, Miyagi Prefecture (NPO: Mori wa Umi no Koibito, <u>https://mori-umi.org/english/</u>) runs longer than CoHHO studies. The activity has also penetrated deeper and wider into society, especially after the Great East Japan Earthquake in 2011. In the 5th Fundamental Environmental Plan, the Japanese Ministry of the Environment conducts the "Connect and support the Forest-Sato-River-Sea" project 2016, specifically targeting 10 demonstration areas ("Connect and support the Forest-Sato-River-Sea" project 2016). In addition, since the earthquake in 2011, a research project targeting Nishi-Moune Bay in Kesennuma City has been led by Professor K. Yokoyama of Tokyo Metropolitan University. Nishi-Moune Bay is where the activity for "The sea is longing for the forest" originates (Yokoyama 2012).

On the other hand, the FSERC conducted several projects on CoHHO studies, such as "Link Again Program" (<u>https://reconnect.kyoto-u.ac.jp/lap/</u>) and "RE: CONNECT project" (<u>https://fserc.kyoto-u.ac.jp/wp/blog/archives/33957</u>), which are joint projects with the Japan

Foundation, as well as the Kibunka Project (https://fserc.kyoto-u.ac.jp/wp/blog/tags/kibunka) introduced in this series. The RE: CONNECT project collaborated with citizens and residents, but before this, research was mainly academic and natural science oriented. Even with the social research of the Kibunka Project (see Chapter 10), we could only get a small glimpse of the link between people and forests. However, a social scientific awareness survey such as a questionnaire survey is indispensable for CoHHO studies. In addition, in the scenario questionnaire in the environmental consciousness project of Chapter 9 (Yoshioka 2021a), we tried to explore people's consciousness with the collaboration of natural science. Nevertheless, it has been pointed out that there is a large gap<sup>#1</sup> between university research (academia) and social activity (practice). This suggests that the integration of social and natural sciences has not progressed. I think CoHHO is an academic field that needs to be deepened in the future.

I introduced the framework of CoHHO studies in three sections of "Interaction between Humans and Nature". Although I wish I could show one model that says "This is CoHHO studies!", it is still fragmentary. However, I hope I have shown that CoHHO ranges extremely widely as a so-called academic field. For those who are trying to tackle environmental problems, or who are interested in the connection between materials and organisms in the ecosystem, I recommend that you at least touch the outer frame of CoHHO studies.

[Reference]

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# [Glossary] (soliloquy named glossary)

<sup>#1</sup>A large gap between university research (academia) and social activity (practice) in CoHHO studies.

In connection with the point that there is a large gap between academic research and activities/practices in society, I have heard the following remark:

# "Although researchers want to know in detail about the concentration of substances,

# the mechanism controlling them, and so on, the CoHHO activities in the real world go

# further ahead."

Although I am aware of the limitations of natural scientific research, I have conducted research projects in CoHHO studies only within a natural scientific discipline. Therefore, it was a shocking remark for me.

# The integration of social and natural sciences was not so easy!

I still think this is right. However, Miki's "Life Theory Note" (Miki 2011), which inspired me to think about "happiness" after studying natural science in my career, suggested the

relationship between "academia" and "practice" in CoHHO. Such a hint was found in the section "About the Skepticism" of Miki's "Life Theory Note" (English translation by T. Yoshioka):

"Skepticism is a connection to the root of things, and dogmatism is a relation to the

purpose. It would be a reason why theorists are skeptical, practitioners are dogmatic,

motivators are skeptical, and consequentialists are dogmatic. However, we must

understand that both dogmatism and skepticism should be methods." (Miki 2011, p.33)

If a person who aspires to do "academic research" in CoHHO is called a theorist, and a person who aspires to do "Mori wa Umi no Koibito" activity in society is called a practitioner, the former is certainly skeptical (or critical), and the latter may be dogmatic (very rude to say this, but please understand that I am being respectful). However, when I read the last sentence, I was surrounded by a feeling of relief because it made me understand that both "dogmatism" and "skepticism" are methods to accomplish something.

But let's not rush to the conclusion. We have to think deeply about the meaning of this last sentence.

It says that both "dogmatism" and "skepticism" are methods, so what is the method for? In other words, the "root" for "skepticism" and the "purpose" for "dogmatism" should be the same. However, what is that exactly?

According to the concept of CoHHO and the activities of the "Mori wa Umi no Koibito", the "root" is the mechanism and processes of linkage among forests, humans, and the sea. Therefore, "skepticism" is targeted towards the structures and controlling factors of the mechanism and processes, and the essence of academia would be to elucidate them. Therefore, scientific methodologies are appropriate and indispensable. On the other hand, if "purpose" is understood as maintaining the proper connection between forests and the sea, or between humans and nature, then "dogmatism" can mean considering all measures and having the spirit and ability to execute them to regain the connection as the ultimate goal. I suppose it is exactly the practice of "Mori wa Umi no Koibito" activity.

# Practice and academia, society and science, and social and natural sciences were

#### originally one!

When implementing the environmental consciousness project, there were many comments on this matter from colleagues.

# "It is wrong to think of social and natural sciences as if they are separate. Therefore, you cannot try and integrate them. Originally, social and natural sciences were not separate."

Some may wonder if we can expand the practice/academia ideology to this social/natural science framework. However, when I came across Miki's sentences, I finally understood the meaning of their comments.

In Miki's "Life Theory Note", in addition to the consideration of the relationship between practice and academia mentioned above, the concept of human position with respect to nature and the definition of the environment are discussed. His conceptual consideration is extremely

important for arguments on ecological and environmental issues, as well as for CoHHO studies.

However, we have to acknowledge the criticism that there is a problem in Miki's "Life Theory Note" from the viewpoint of current research ethics and fairness. This may be due to the form of writing as notes, the age of publication (original articles were published in "Bungaku-kai" from 1938 to 1941), the background of the period, etc. In fact, plagiarism (unauthorized quotation) from "Propos sur le bonheur" (Alain 1998, original published in 1928) has been pointed out in the section of "About Happiness" in Miki's "Life Theory Note". Miyajima (2019) has discussed as follows:

"Due to the nature of the article, it can be said that it is somehow within the permissible

range even if the source is not shown. This defense to Miki's article is our current

conclusion."

Regarding the section "About Skepticism" referred to before, I do not know whether any problems with plagiarism have been pointed out so far. Although we have to acknowledge such criticism, Miki's "Life Theory Note" contains a lot of very suggestive texts. There are many difficult expressions specific to the field of philosophy, but I recommend you read it if you are interested in ecology, environmental studies, and CoHHO. I would like to find another opportunity to consider and introduce Miki's concepts on the environment and the relationship between humans and nature.

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#### [Reference]

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