

## **Creating Science-Society Interface: Design and Expected Function of “The Society of Yakushimaology”**

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Since 17<sup>th</sup> century, Yakushina Island has been known as an island which produces Yakusugi timber: one of the most expensive timbers in the world from aged Japanese sugi cedars (*Cryptomeria japonica*) older than 1,000 years. There has been a long controversy of conservation or logging over several decades among conservationists, Kagoshima Prefecture, two towns of Yakushima (Yaku Town and Kami-yaku Town), Japanese Agency of Environment which was in charge of National Park that accounts 42 % area of the island, and Japanese Agency of Forestry which owns ca. 80 % area of the island. At last Yakushima Island was designated in UNESCO World Natural Heritage List in 1993, but the totally protected area covers only 21% of the island due to the long history of deforestation. Just before the designation in World Heritage, a prefectural proposal for widening of a road which penetrates the core area in western coastal region was rejected by adopting the opinion of zoologists and resident conservationists. The opinion was to propose the “wise use” of the core area in this region for research and educational purposes under the name of “Yakushima Open-Field Museum”. However, this rejection brought considerable economic losses, because one of the main incomes of the residents was road-construction under the Law for Promoting Islands’ Development which allows huge investments from a national budget in infra-structure in remote islands including Yakushima Island. Since then, zoologists and resident conservationists are obligated to demonstrate economic benefits from not-widening road. Dozens of activities were realized as research and conservation programs by NGO with researchers from national research institutes and universities, several series of field biology course for graduate and undergraduate students of colleges, universities and for high school students, and eco-tours by paid guides.

Based on such activities, “The Society of Yakushimaology” launched in December, 2013 to form a platform to discuss issues on conservation and sustainable development of the island. It also aims to draw more attentions and to gain more commitments from sectors and stalk-holders which have not be involved enough so far. We held several preliminary meetings before launching. In the meetings, it was agreed

that there are real needs for such a society or an association which bridges resident people in the island and researchers out of the island. Resident people recognize that there are many researchers including students who have often visited the island to study “something”, but there are only a few occasions to listen to what they studied and how were the results. When the island was designated in World Heritage, “Yakushima Environmental and Cultural Foundation” was established funded by Kagoshima Prefecture, Yaku Town, Kami-yaku Town and donation by people who concerned. The foundation operates two big facilities in the island and runs a series of seminars by lecturers invited by outside the island, but no professional has been employed to design the total communication between researchers and Yakushima community. And researchers have organized public lectures by themselves for two decades, but the degree of recognition has been still low, and if any, the legitimacy has been doubted (e.g. a kind of campaign by conservationists which interrupts the “development” of the island). The needs from the resident side mentioned were: 1) to know the newest knowledge about the island which does not only satisfy the intellectual curiosity but also suggests directly or indirectly the seeds of the business, e.g. eco-tourism, a new style of low-impact agriculture, small scaled energy supply; 2) to ask questions of professionals on which the residents often encountered in their daily life; 3) to show the younger generations how Yakushima Island is fascinating to make them interested more in their natal island; 4) to present their own studies and discovery (including island students’) in front of the professionals, and 5) to discuss on the issues confronted which need professional knowledge, e.g. over-use of mountain area, over-population of sika deer, overfishing. From the researchers side, there also needs exist: 1) to get chance their “outreach” of research activities; 2) to obtain the local knowledge or opinion of the residents on the issues researchers studying; 3) to find key persons who facilitate the social studies, e.g. questionnaire, intensive interview. Actually, many researchers have desired to present their results in front of the resident people in the island, but many of them have hesitated because they do not have proper know-how, including finding a good venue and advertisements to invite listeners. At the same time, many of researchers have recognized that their knowledge and experiences will contribute, at least to some extent, to solve the serious problems confronted in the island.

Also, we discussed several important points which characterize the society as an academic one. First, the society should be based on academic achievements that have

accumulated and are accumulating in the island by professionals as well as non-professionals. Second, the society is not to obtain the conclusive answer for the controversial issues, but to share information and to discuss deeply about them. Third, everyone joins the society based on an individual aspiration, not as a representative of any sector, and everyone should be treated equally at the meeting. Up to now, there are 95 registered supporters: 43 are Yakushima residents and other 52 are non-residents. As the society is an academic one, 40 are from universities (including four graduate students and three non-Japanese: a German, a French, and an English), four from national research institutes, and four from municipal museums. From NPO, twelve persons joined the society, and ten persons among them live in the island. An important sector in Yakushima Island is tour-guides, because more than 160 people are engaging in tour-guiding among totally ca. 14,000 population in the island. Ten tour-guides join the society, and among them three are running their own tour companies with several employed guides. Nine civil servants, five members of the town assembly, eleven self-employed except tour-guides in the island also join the society.

On 14 and 15 December, 2013, the first annual meeting was held in the island. There were two plenary lectures: one was on folk-lore of the island and the other was on 40-years activities of primatology in the island. Three high school students presented their study in the oral session and four more titles in the poster session. Nineteen titles were presented in the poster session although only three among them were by residents. Three exhibitions were organized: sea fish (by Kagoshima University Museum), seashell (by two collectors in the island) and underwater photography (by an amateur photographer in the island). There were ca. 300 participants, including ca. 80 from out of the island. Also, the charter of the society was adopted. According to the charter, the president and other board members of the society should be selected by voting, but at the first stage without any registered members, a tentative president and a tentative secretariat were approved at the launching meeting. The tentative president is myself who start the idea of the society. The tentative secretariat is who has been organized NPO in the island for the biodiversity conservation. After the meeting, we nominated ten board members in the executive committees: five are researchers out of the island and five are residents. We intend to hold a meeting in the island annually and to publish the communication magazine based on the presentation in the annual meeting. Each annual meeting will provide two symposia: one is somehow on academic matters,

e.g. the history and origin of Yakushima flora and fauna, the catastrophe by eruption of Aira Caldera in BP 6.800, the forefront of sciences on Yakushima monkeys; the other is urgent issues of the island, e.g. the problem of toilette in the mountain area, over-population of sika deer and forests, global and local changes in the coastal ecosystem, carrying capacity of tourists, attestation of sustainable fishery. We are now preparing the 2nd annual meeting which will be held on 13 and 14 December, 2014.