

**Report on the Japanese rice-cake making
in Hirono Ground, Konan University
(from 16th till 18th of December 2005)**

Abstract

This report analyses two aspects of Environmental Education in both under- and postgraduate levels, which the author witnessed on a weekend workshop. In methodologically I chose to apply Philosophy of Science, since most of us admit that Philosophy is the father of all sciences (despite Comte and his fellows who counter-emphasised Sociology), therefore bears with the greatest chance to tackle our inquiry herein. The author follows Russell`s science-philosophy cycle (Russell, 1997). Both themes first receive a philosophical presentation, then tried out in science, later in practice. Finally the unsolved, problematic questions return to the domain of philosophy for critical appraisal.

We embark upon a recent movement of research application, chiefly the transdisciplinary methodology. Later it is addressed with relation to the Hirono Ground project, where it is pointed out that the course design of Environmental Education on the practical implementation as well seeks strongly the ways to approach Nature-human relationship via transdisciplinarity (many disciplines, students, teachers of all level, professionals etc.). The example of mochi (a Japanese rice cake) making *in situ* well characterises and underpins this aim.

The other issue derives from the holistic view of research topic. The origin of Western holistic (organismic) science is briefly revisited and sourced back to Gestalt theory. This theory needs to incorporate the ecology of environment as Bronfenbrenner(1979) suggested. Then we arrive at a dynamic and interdependent worldview, which in my opinion then can be compared to Shintoism. The Shinto lifestyle embraces this wholeness in thinking through seeing the world in a

harmonious accordance and flow. Its heritage, that how life can be encountered within the natural processes, is well illustrated by the immense observational value of Japanese (and other) ancestors, such as climate considerations in Japanese traditional housing (Uno, 2003). In Hirono Ground, I personally experienced this extended holism while discussing the rice production: students had a holistic picture about the process how the mochi comes ,with the help of Nature, to the dining table. The critique may start that the presentation of this Environmental Education is traditional-seeking, therefore not progressing. The philosophical domain in terms of future existence of human mankind asks then: how long will the Earth bear our 'modernity' such as polluting, resource wasting living; or should not we take the presented 'soft approach' (Baars, 2002), which has proven its dignity with few thousand years of maintained existence. The question of sustainability is more urgent than theorising whether what can be called as modern, which is *ipso facto* a subjective consideration (Latour, 1983).

1.1 Transdisciplinary Environmental Education

Nowadays human being faces serious ecological and social consequences of having mistreated Nature via an exclusively objective and ignorant science (Aalborg and Kri) and science of education. The later is best described as teaching how to control and rule Nature, and not how to live with it (Kochetkova, 2005). In Europe, where the reality went to the bin by the wild-feudal and pre-capitalistic movements, the pioneer educator, Rousseau (or.1762) pointed out this misery with a drastic expression in *Emile*:

God makes all things good; man meddles with them and they become evil. ... He destroys and defaces all things; he loves all that is deformed and monstrous; he will have nothing as nature made it, not even man himself, who must learn his paces like a saddle-horse, and be shaped to his master's taste like the trees in his garden.

The process from the late 19th century Europe has been accelerated, as Weber pointed out, by the increasing division of labour, which narrowed the field of competence for the individual. Everyone in this modern society has become 'a little cog in the machine' respectively (Weber, 1958). The Durkheimian hope, that organic solidarity, which would still maintain the social cohesion despite over-specialisation, has been shred by the merchandised capitalism or 'satanic mill' (Polanyi, 1943), whose goal is

about reducing knowledge amongst the population (Braverman, 1974). Rousseau already believed that a paradigm shift in education could reverse this degradation of human being, in his *Emile* he gave this profound task to teachers and parents. From the angle of separation between education and reality in the higher education, this tendency has brought up a call for reconsideration by Jantsch in 1970, who emphasised the implementation inter- and transdisciplinary education (the former is a cooperation between faculties with close relationship; the later includes non-scientific participants, such as farmers etc. too) , which could combat the problemology of over-specialisation ((Tress *et al.* 2004). The advantage compared to modern single-discipline research seems to be obvious: the students, researchers gain new insight about their topic, which offers many new ways to get along. This can be associated with the Taoist thinking, where many paths in the same forest will lead to the same place (in Taoism there is no best way and final destination subsequently). The results which the observers come to, are not fixed and always in accordance with the circumstances (as Wittgenstien (1974) has recognised that one colour is not perceived without an another colour, which can then contrast and show up the other colour; further the colour is always perceived differently according to the other colour's quality). This establishes the contextual value of transdisciplinary research, which always research objects with regard to their environment. This well comprehends later the holism.

The transdisciplinary research has helped to see ecological problems as not a single cause or a single species which became affected. Therefore the ecological interdependent cycle is recognised. A disappearance of a bird species can be a complex degradation of the whole environment as it has been recognised in case of Oriental white stork in Toyooka, Japan. There are many factors which affected the extinction of the white stork, such as chemical farming and deforestation around Toyooka. This view to research these problems with traditional and non-traditional instruments without borders of study area is mainly held by deep ecologists and they are in an upcoming stream within the scientific world. This dynamism of transdisciplinary approach is grasped by Prof. Taniguchi (2000, p.182), when he identifies modern thinking as 'fixed' and sets task to 'go back to original flexible situation'. It means that we should shred away the conventional 'value-' and prefixed knowledge teaching, instead we ought to stimulate students to discover their own epistemological and ethical inner-world with relation to Nature (Taniguchi, 2001 p.198).

1.2 Transdisciplinarity in Hirono Ground

In Hirono Ground there is a powerful interpretation of this transdisciplinarity. The philosophical foundation stone is laid on the fact that students clearly gain vision by studying and teaching children in the urban environment of Kobe City and for some time they travel an hour away where become confronted with the dichotomy of diminished and maintained rurality. This can be called, at the first glance, a culture shock, which usually city children experience from the beginning. Professor Taniguchi freely offers to his students a very wide range of experiencing both sides of the coin: the devastating urbanisation and the depleted, polluted countryside in contrast with the beautifully habited rural landscapes.

Hirono Ground is a place where *students can become conscious about how it is possible to recreate the life in a destroyed area with connection to Nature*. The path taking to Hirono, there are some ugly-looking metal-dumping yards. This phenomenon tells us that wastes of industrial overproduction are recharged in the rural countryside further polluting its environment. Furthermore, students notice that several conventional farmers and gardeners grow plants heavily relying on artificial chemicals and fertilisers, which of course make both humans and Nature ill-affected (Abderhalden, 1934). Scholars witness here a reconstructed landscape just behind Hirono Ground, where the water reservoir has a concrete basin giving no opportunity to water plants to grow on: water has become *a mere utility for human manipulation*. The highly rationalised world, 'iron-cage'-likeness of the city, which seems unstoppable, already almost fully reshaped the rural landscapes as well (beyond the urban land).

The Environmental Education students in Hirono are thankful for the possibility to experience farming, an unpopular activity in modern Japan: unfortunately less than 1 % of total workforce engages in land cultivation (the average of farmers age is above 60 years). Although half a hundred year ago half of Japan's population enjoyed this healthy activity of life! The farm consists a vegetable garden and a paddy field. The vegetables, rice they grow by themselves with elementary students together, which then give the ingredients for cooking and mochi-making subsequently. All the students by observing the whole cycle of food production, can inspire them to use several disciplines to understand the processes. For example, we visited a local beef-farm on the 2nd day. The large, open barns can accommodate 300 Holstein beef. The first we noticed was the sweet and fresh fragrance coming from the animals. The cattle was aware of environment, directly looking at us. All cows had his/her horns,

which is not a rare phenomenon in Europe (due to our risk society, they dehorn the cows to prevent accidents with humans). This important organ of the cow, the horns function as part of their immun system (blood circulates through), and keeps the cows aware of their ecological space (Baars, 2002). The students could directly touch these horns, and sense their warmth. The farmer directly got engaged in conversation with Prof. Taniguchi and his students: it is an essential part of the transdisciplinary research. The general living of the farmer suddenly became clear to the students: the everyday work in rhythm with the growth of the animals, the family business, which sells their own beef and the pressure from the globalisation to buy feed for the animals from other countries. Beyond socio-economic and psychological investigations, there was a direct link to observe a typical Japanese farm situation. Without the context of these motions, the students probably would never understand the struggle between rural life, urbanisation and globalisation forces. Therefore those Environmental Education students could offer, after becoming teachers, nothing about the real world context to their pupils.

2.1 Holism and the Ecology of Holism

The interdisciplinarity in science itself works as a fire-fighter against the destructive flames of reductionism and the Cartesian-fashioned constructivism of taken apart elements by summing them up (Piaget, 1971). The transdisciplinary science goes beyond by searching reconnection between science and real life (between mind and body or research and reality in context). The problem of all these concepts was the complete denial that separated part and microscopic level elements never exist and behave without the complete emergence of all the parts in the reality (only on theoretical level) as Szent-Gyorgyi (1967) and others noticed. Within European context, in the Plant Kingdom Goethe made the first observations on holism and in the Animal Kingdom it was Haeckel, who recognised the importance of units as self-regulations (Steiner,). But with the picture of wholeness of a single organism we still have not grasped the idea of the living Nature: landscapes, organisms and ourselves, as wholes on differentiated levels (fe. a standing oak tree in a landscape on an island). In order to come closer to the living, there is a need to reckon that an organism is a self-in-itself being self-maintaining, not only on its first level, as early Gestalt theorists thought. But on every levels of its ecology as developed further by Bronfenbrenner (1979). Like our oak tree, which is a host of a range of other organisms and can not be considered without the existence of the whole landscape and the island

whose elements all participate in shaping it and *vice versa*. In Environmental Education, seems to be the first question is that what these ecological levels are. In Human Psychology as Bronfenbrenner (1979) pointed out that a human is embedded in the world on the 'macro'- (immediate), 'meso'- (intermediate) and 'macrocosmos' (distance all) levels. Prof. Taniguchi (2000 p.122; 2001 p.34) suggests accordingly to work on 'local, regional and global levels'. The importance of this to make the problems visible as systems of interdependence on each level. If Environmental Education fails to recognise these ecological realms, then it will greatly blunder in the teamwork of global agenda.

2.2 Holism in Hirono Ground

There are many streams on the ground of Gestalt theory. As we have seen on the level of ecology, the course is well aware of the problemology of space, such action on different levels in the environment. In case of Hirono Ground and other fieldwork areas this theory is refined, according to my observations, to a specific Gestalt theory, chiefly the Goldstein approach (Goldstein, 1995). In its unique methodology it begins with the most suitable organisms (objects), the disfunctioned and affected ones. Goldstein claims them to be on a better observational ground, then looking at healthy ones. The mal-functioning organism opts to continue living with a decreased diversity in the environment (like brain-injured patients seek routine and simple tasks and room settings). This is the basis of Goldstein's approach, where the patients show us what affects us in stimulating or regressional ways. Hirono Ground, as we stated before, is a degrading environment with the pollution coming from cities etc., with a tiny bit of wild forest left behind. Also the city is even much worse, so the students have a grand variety of research objects affected on different levels. Actually on Hirono Ground, the scholars were clearly aware, that the negative affects create simplification in plant, animal and human diversity. The landscape becomes more and more dull, less species with less variety are present. They realise that people and Nature maintain themselves like this, despite the size of destruction taking place (like in Kobe). People in these settings of the city are not aware that they can be compared to injured human beings. The scholars of Environmental Education study these different settings and declare clear opinion and tasks to carry out (such as deformed monkeys, mercury poisoning). Such as the mochi-making, the act-in-itself combats loneliness, alienation from others and the environment. An activity which can only be done by the cooperation of several people, enjoying physical work and seeing

the metamorphosis from the boiled rice into the ready rice-cake. Also it presupposes, by the end of the year, that the seasons have passed and mochi is a substantial symbol of Nature's and human beings' coexistence. Therefore the Goldsteinian way how students are introduced into Environmental Education, though the negative examples on different degrees, can enable them to carry out meaningful future deeds. There are further aspects where Goldstein's Gestalt resembles or equals with the education system of Konan University, which should be explored with prospect.

Conclusion

As seen from this short report essay, this traditional process of making mochi, involves an immensely rich ground for philosophical and scientific investigation. The culture of mochi-making, which forms the epistemological process as well (as known from Merleau-Ponty) was not described however in details: it still awaits, since I have no real experience in the matter yet. But without prejudices, a philosophical insight could be formed without dogmas and prefixed ideology, which underpinned the current framework how students have been studying and teaching Environmental Education at Konan University.

A critical insight is necessary however to be formed, in order to fulfil Russell's philosophy-science cycle and comprehend to further development. The question is, after having enquired the problems and beginning to solve them, what are those difficulties, which we still combat either *ex situ* or *in situ*? The tangibility of globalisation, for example as we saw in the case of beef farmer, needs to return to philosophy, since *it is not sustainable and heavy pollution upon the environment is imposed*. Probably we should increase self-sufficiency, but how when we rely on global resources instead of local and regional? Further problem is the recycling. Furthermore how could we establish a cycle such as Rudolf Steiner in *World Economy Lectures* recommended: humans create upon Nature (natural resources) with their *spirit* (imagination, creativity and will) products (food, shelter etc) and by the end these products are *fully* consumed, therefore everything returns to Nature. This is a balancing cycle, which should not break at any stage. Certainly if we could keep this in mind with ethical consideration, then we would not face, for instance with pollution (which is caused by neglecting *spirit* and no consideration of recycling). But these questions are grandious and we all need to work on them to save and most importantly to restore.

What I experienced during this 2 days workshop, reminds me Goethe's *Italian Journey*. This man opened his senses bravely, let them receive freely without any prejudice, a 'periferic view' (Janos Selye calls it; a soft epistemology, strongly appears in Goldstein's methodology, when he describes the first step he does during analysing patients: he observes anything, writes down, draws picture of behaviour, no judgment whether these sketches are important or not for the research). The students throughout these two days were encouraged to acknowledge things of the mochi-making process and beyond. To write essay about this pleasant time, is an essential part of learning with deed thought. I reckon therefore when Prof. Taniguchi (2002, p.198) talks about 'to nurture the students' intuitions', becomes Environmental Education a free entity of the transdisciplinary holism. Goethe's trip to Italy was the first step in Modern Europe toward unfolding this sensitivity to Nature via this sound epistemology.

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