

FOREST PEDAGOGY IN SLOVENIA

M. Sc. Natalija Györek, Institute for forest pedagogy

ABSTRACT

In learning and education for sustainable development, Slovenian forests undoubtedly have a major role. Forest pedagogy can be the basis for such education. While this is a relatively new branch of pedagogy, it is becoming increasingly common in Europe; however, in Slovenia, it is at an early stage. The fundamental basis for such education has been made in the curriculum for nursery schools and primary schools, but it has not yet been realised. The reasons for this are both subjective and objective in nature. Objectively, vaguely defined goals primarily in teaching programs have caused delays in realising forest pedagogy, while subjectively the problems are in the nature and causes of assuming greater responsibility for teaching, the kind of preparation in the use of more empirical and experimental methods, teacher knowledge etc. In the future, an interdisciplinary approach would be desirable, bringing together science teaching as a nature-engineering profession.

1 INTRODUCTION

Forest pedagogy is coming to Slovenia relatively late in comparison to other European countries; in particular, it depends on the activities of individual societies and associations in this field. The most important in this type of education is still the initiative and the role of schools and nursery schools. The fact remains, however, that the teaching about forest and aquatic ecosystems, and the interaction between natural ecosystems and their environment, is to frequently implemented entirely in school classrooms and does not include knowledge about sustainable development.

The United Nations declared the Decade of Education for Sustainable Development for the period between 2005 and 2014. From the perspective of sustainability, the forest is the perfect example: it is eternal yet simultaneously destructible; every person should understand its vital interdependence of living and inanimate nature, the interdependence of plants, animals and humans (Anko 2009).

Slovenian forests and their management are good indicators of sustainable management and, as such, highly appropriate as a positive example for activities and education within the scope of forest pedagogy. Slovenian forests can become the foundation for children's creativity, which is perhaps the most essential skill for their future personal success.

The purpose of this paper is to highlight the importance and values of forest pedagogy, and to draw attention to possible barriers that prevent more systematic work in this area.

1.1 DEFINITION OF FOREST PEDAGOGY

Forest pedagogy is a relatively new branch of science, which brings together interdisciplinary pedagogical and forestry knowledge. The name originates from Central Europe; along with other related terms.

Slovenia's neighbour Austria provides an interesting example. Forest pedagogy is teaching people about the forest, specifically, its non-economic aspects. Learning is mediated through direct and indirect perception, which includes learning by doing, i.e., with the heart and head. In the forest, trained foresters teach people, through a rich learning experience by providing the knowledge of the functions and importance of the forest. Forest pedagogy is a tool with which foresters teach about the environment and the appearance of life, which requires proper and good knowledge of the forest (Botka and Moser, 2003, in Divjak Zalokar 2008).

Examples of good practice can be seen in Austria, Switzerland, Germany and France. In Austria (*Waldpädagogik*; www.waldpaedagogik.at), eighteen forest training centres have been established; 1,200 forest-educated teachers carry out guided training (at least three hours) in the forest. Nursery schools (*Waldkindergarten*, *Naturkindergarten*), forest schools (*Waldschule*) hotels and youth forests have also been established. Each year in France, 30,000 pupils are enrolled in the forest programs and projects, producing over 400 projects.

The formal term "forest pedagogy" (or similar) is not yet in use, although individual activities that can be included in forest pedagogy, are already underway.

In short, in Slovenia, forest pedagogy is defined as education and training on forest and nature, and its values. It is based on the emotional perception of nature, to promote experiential learning and thus develop a positive attitude towards nature. Activities carried out in the woods.

The principles of forest pedagogy are based on understanding the relationship of humanity to the environment and to nature, and knowledge of forest ecosystems. Forest pedagogy also promotes and educates people about sustainable development in its social, economic and environmental aspects. It presents a bridge between natural and social sciences, and offers a holistic and systemic approach that takes into account structure of environmental problems.

2 VALUES AND ADVANTAGES OF FOREST PEDAGOGY

2.1 CHILDREN'S HISTORY OF CONTACT WITH NATURE

Children's relationship to nature is created through the development and life of humans (*Homo sapiens*) for almost their entire history. In the beginning, humanity lived in close harmony with nature. With the cultivation of plants, the domestication of animals and permanent settlements, a slow and long process of alienation from nature began.

However, from the beginning of human development and throughout most of history, children have maintained close contact with nature. Their first choice of games is based on visits to the nearby forest or forest edge, large trees or streams.

Changes began in the second half of the twentieth century. With urbanization, the natural playground began slowly to disappear, the natural landscape, under the influence of urbanization, greatly decreased. However, children were still free during their playtime, with very little parental supervision (White 2004).

The lives of children today are quite different; their physical contact with the outside environment has been greatly reduced. The culture of childhood in which they can spontaneously explore nature and have contact with their surroundings is over (More 2004); the daily lives of children have been reduced to courtyards and gyms. Research indicates a lack of security due to various factors, as the cause in most cases (Wilson 1996).

The consequences of such a lifestyle are that children simply do not know that nature is part of their lives, and perceive it as a separate environment. They do not know the tree and animal species, ecosystem functioning, nor do they develop an appropriate attitude towards them. They do not know that the quality of our lives depend on forests. Some even develop a fear of nature. When these kids grow up, to them nature has meaning as a barrier.

2.2 THE CHILD'S EXPERIENCE OF NATURE

Children experience nature in a completely different way than adults. Nature is green laboratory for them, where they can, test how things work with their hands, through play and their own research. Research has shown that love of nature and a positive environment increases with regular contact

and playing in the natural environment (Bunting and Cousins 1985; Kals et al. 1999; Schultz et al. 2004). Children's emotional and affective values of nature develop earlier than their abstract, logical and rational perspectives (Kellert 2002). The problem of most environmental and school educational programs about nature is that they show nature from the perspective of adults and in an abstract and logical way, which is not suitable for children in their early years.

2.3 VALUES AND ADVANTAGES OF FOREST PEDAGOGY

Many people do not know that the forest once covered the entire Earth. It did not only assert itself where water made this impossible, or in distinct climatic conditions. The forest has always been a natural framework, essential to human existence and development. Attitude towards trees and forests have largely been positive: the forest is a place of imagination, a core identity, a strong spiritual and emotional impact (Slee et al. 2003).

Today, we find that people of all ages need contact with nature, precisely because it brings pleasure and enjoyment. So today, when the forest is the largest natural area in the densely populated cultural landscape, people return to reflect its non-material values. The fact is that our society focuses much effort on raising environmental awareness, which is certainly very positive, but actual knowledge of nature is less. In addition, we must consider that the nature is a superior concept of the environment. Therefore a "step back" may be necessary for children and thus adults better to understand nature, to love it and to learn to respect it.

Knowledge of the functioning and structure of forests offers us something more than just a biological baseline knowledge of ecosystems. In the woods, we can track what life values nature offers us. Nature is a constant creation of new life (Mlinšek 1993), and accordingly forest pedagogy should be well designed, creative and innovative. Forestry science and management in Slovenia has long been based on educational principles of the great reformer of science and practice in education Johann Heinrich Pestalozzi. The nature of the forest is best known in an experiential way, which is an important step in the next signpost proper forest management.

In a natural forest, it can be seen that the young parts of the forest are sheltered by old trees that protect them, throughout centuries of growth. These young trees tell us about patience, perseverance, solidarity between generations, that the values given to us by today's fast pace of life are lacking. Trees tell us their life stories: the beech about its authority, the fir about patience, the decaying oak tree about the history of any war, discoveries and other historical landmarks. Such stories can frequently be found in the woods, but we need to explore them.

Here new dimensions for education of the children and our coexistence with nature open up. In the first period of children's' lives, they experience their surroundings on the emotional level, so the forest offers a maximum in terms of promoting autonomy, children's imagination and creativity, social contacts and motor skills.

Forest pedagogy is based on experiential learning and research methods. These are the so-called active methods that mentally and emotionally attract children to solving problems and are especially suited for activities under the forest pedagogy. Active and experiential learning through direct

experience of events, in their natural environment and specific problem-solving, focusing on processes of mutual influence and connections between phenomena have a positive impact on child's development (Marentič Požarnik 1993).

Forest pedagogy is aimed at target groups, but primarily we are addressing it to preschool and school children. The forest is green schoolroom and forest pedagogy takes place only in nature and forest ecosystems.

Upgrading and continuing education may be an interdisciplinary project work or the work of the entire class, because connection is possible with almost all school subjects. Specifically, knowledge and experience on the functioning and structure of natural ecosystems may also be used to advantage in all other subjects, such as Slovene language, history, geography, music, art education and also for more abstract subjects, such as mathematics or physics.

3 BARRIERS

The forest is a common element of the Slovene landscape, and therefore a value in itself (Bogataj 2009). Forests in Slovenia also have economic and environmental and social components, which are essential for the health, welfare, and social and cultural development of people.

Forests cover slightly less than 60 percent of Slovenian territory; greater forest coverage in Europe is found only in Sweden and Finland. Seventy percent of forests have been preserved, i.e., their structure and composition is quite similar to virgin forests. Slovenian virgin forests are maintained at Kočevje, (the virgin forest Rajhenavski Rog (51 ha) and virgin forest Pečka (60 ha)) and are classrooms for all of Europe. In addition, we also have culled and eight protected primeval forest reserves. A walk through the old growth forests shows us all the dimensions of nature.

Management of Slovenian forests is sustainable and multipurpose, and based on clearly defined laws. We have a tradition of forest management in Slovenia, which is based on principle of sustainability and this principle is the basis for the ethical management with our forests (Anko, 2001).

The Slovenian forest is an irresistible field of research; however, our children do not know about forests and other natural ecosystems. Despite knowledge of the importance of education in nature and experiential learning, changes are slow, at least in Slovenia. The teaching profession has decided for this style of education in a very small number of cases. What are the barriers?

1) The fact is that both, the nursery school curriculum (Curriculum 1999), as well as educational programs for elementary schools (Medpredmetna..., 1999) in Slovenia provide educational activities in nature and the outdoors. However, the problem is that curricula for elementary schools do not have clearly distinct nature of environmental objectives. Nature education is somehow lost among general environmental education.

2) One factor is surely the teachers' concern for safety of pupils outside the classroom. Forest teacher training courses take responsibility and make a clear code of conduct in the forest, for example (Pädagogische ... Arbeit, 2007):

- Children should always be within eyeshot and earshot of the group. The area for playing the game could be marked out with rope, natural obstacles or orientation points.
- Children should immediately return to the forest teacher, when they hear a particular sound.
- No littering in the forest.
- Speak only if you have a megaphone.
- Do not eat unknown forest fruits.
- Do not climb the trees.
- Possible injuries must be immediately reported.

I must mention that in the last five years, preventive actions to protect against tick bites have been held, which has been well received by the public. The forest, in this way, becomes perceived as an unreasonably dangerous area, and one to avoid.

3) A further negative point of view is that while nursery schools and schools implement science-days for children and organize more days of school in nature, but only with sport themes. The Centre for School and Extracurricular Activities (hereafter CSOD) and schools have similarly determined general and operating didactic goals; however, the CSOD has promoted particular sports programs and reduced natural themes (Kranjec 2010).

4) An important factor for this type of education is teacher knowledge. Torkar (2008) and Kranjec (2010) have found that the teachers do not separate the concepts of nature and environment; they also do not know how to define concepts of nature conservation, protected areas, environment and protection of the environment, biodiversity, sustainable development. The teacher has an important role at this kind of education. Children, especially in the first triennium of the school, trust her and they respect her. If the teacher has a positive attitude toward nature and uses appropriate methods, it will result in children enthusiastically learning about nature.

5) For the wider promotion and implementation of such a method of education, it is also necessary to think about training teachers to use certain methods. A contradiction occurs here, because many believe that it is a waste of time and that pupils must first acquire basic knowledge, and then proceed to joint research, games, simulations, dialogues etc. (Marentič-Požarnik 2002). Teachers in the first triennium of primary school in the subject of Environmental Education mostly use methods of conversation, explanations and demonstrations; less so field and experimental work (Balažic 2008).

The expected results of forest pedagogy clearly outweigh the above negative aspects. Some of the more positive results are a heightened emotional approach to nature, the collection of direct experience, long-term knowledge, greater interest in learning, more self-initiative and autonomy at work, better observation and understanding of phenomena in nature, becoming accustomed to field work, becoming accustomed to interdisciplinary work and the creation of positive values. It can also be said that this type of teaching is encouraging, as children like to research activities, gaining knowledge in a fun and yet educational way.

4 CONCLUSION

Forest pedagogy is a new scientific discipline in Central and Western Europe. With the ongoing development of forest pedagogy in Slovenia, we want and to invite children and teachers in the forest, to emphasis the value of the forest and to motivate children to responsible treatment of nature. In a narrower sense, we provide information on the Slovenian forests, forest operations explained as an ecosystem and the importance of sustainable development in the case of forest management, encouraging creativity and learning in nature, based on an experiential basis.

Late this year, drafts and plans for education of children for sustainable development will be introduced to Slovenia. Only this can help children realise the values of education, which include a respect for nature and forest.

The question still remains whether it will be possible to establish links between schools and the natural environment. Probably such a mode of education (the nature of nature) has remained largely dependent on teacher interest in nature and the integration of it in the annual lesson plans. In the future, an interdisciplinary approach will bring together education and nature/engineering disciplines (foresters, biologists, geographers etc) in forest pedagogy. This has been done in other parts of Europe.

Therefore, let Pestalozzi's rule be valid: go into the woods with your heart, head and hands! Because nature can offer more experiential knowledge as a teacher with the words, because the teacher has never lectured and taught in terms of things that a child can touch, see or hear. **REFERENCES:** :

161

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