

# Forget Your Botany

*Developing children's sensibility to nature through arts-based environmental education.*

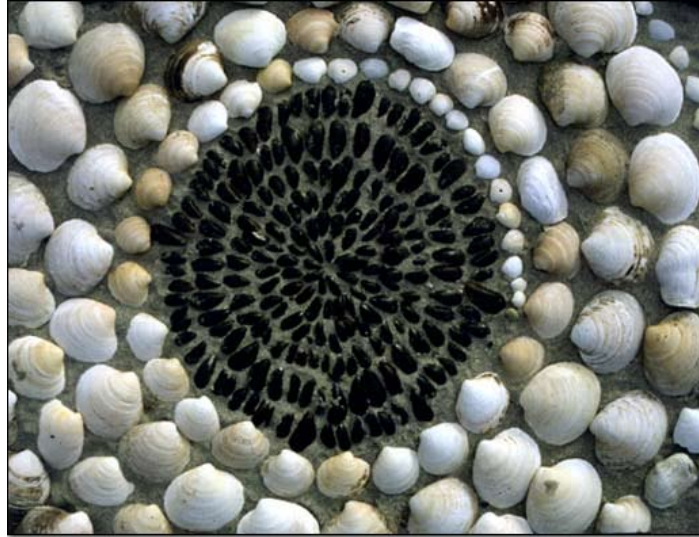


Photo by Timo Jokela

by Jan van Boeckel

**M**ANY PEOPLE DEPLORE the loss of direct contact with nature. Moreover, this absence might be one of the root causes for the ecological crisis we are experiencing today, and for the mood of indifference that many people feel for it. It is hard to care for something that we no longer perceive as being constitutive to what makes us human. To counter this development, an increasing group of educators thinks that education should facilitate a form of learning that enhances children's sensibility to nature and place, to what Gregory Bateson so aptly described as 'the pattern which connects'.

One effort in this direction has been the advance of what is called 'environmental education'. It is one of the challenges for environmental education to get children enthusiastic beyond the limited perspective that the natural sciences offer. On top of that it runs the risk of unintentionally conveying an ethics of 'guilt'. A one-sided focus on the scope and magnitude of today's environmental crises can cause feelings of personal inadequacy and even despair. The result can paradoxically be an even further detachment from nature, and a mindset that considers the act of reflection on the relation between humans and nature as a limiting endeavour, rather than something that can enrich one's life. If an ecological lifestyle is seen only as restriction and austerity, it will only be accepted as a last resort.

## Beautiful actions

This is one of the underlying reasons that the Norwegian eco-philosopher Arne Naess called attention to an interesting element in the writings of Immanuel Kant. Kant makes a distinction between what he calls a 'beautiful act' and a 'moral act'. An act is moral if it is in accordance with your ethical duty: you have an obligation to do something. More often than not, this may go against your inclinations, against that what you want to do. For Kant, a beautiful act is an act where we act with our inclinations, so that it is what we want to do. Naess believes that through spiritual or psychological development we can learn to identify with other humans, with animals and plants and even ecosystems. We can learn to see ourselves in these other creatures, and in that way they become part of our being. By identifying with the more-than-human world, we want to protect it; we are not acting against our inclinations.

The desire to act beautifully is something that can be learned at an early age. According to Naess, we might have to relearn the way children appreciate the things around them: "Children are more spontaneous in the sense that reflection and conventional views of things do not yet play such enormous role. If we were able to see a little bit more like children, we would gain very much. That's a very difficult re-development, to

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get into this state of children's inner life."

Nearly a quarter century ago, Edith Cobb argued in *The Ecology of Imagination in Childhood* that children have a certain age period at which they are more predisposed to be open for the natural world: "There is a special period, the little-understood, prepuberal, halcyon, middle age of childhood, approximately from five or six to eleven or twelve...when the natural world is experienced in some highly evocative way, producing in the child a sense of some profound continuity, a renewal of relationship with nature as process ... [This original childhood experience may be] extended through memory into a lifelong renewal of the early power to learn and to evolve."

Since Cobb wrote these words, however, the environment for children has become more and more an environment permeated by technology. For many children in Western society, the prevailing childhood experience is that of being engaged in watching TV and playing computer and video games. TV and electronic games present to a child a world of constantly changing pictures. A child is brought into a reality where there is a direct and observable cause-effect relationship between all of his or her actions and the images on the screen. Culture critic Jerry Mander describes the consequences as follows: "When that whirling-spinning-exploding world is turned off, he or she is left in real life, the room, the house, a much slower world. Boring by comparison. If he or she then goes outside into nature - well, nature is really slow. It barely moves at all. It takes an extreme degree of calm to perceive things in nature, and I suspect we may be producing a generation of people too sped-up to attune themselves to slower natural rhythms. Children of the computer generation grow up with their nervous systems attuned to televisions, video games, and computers. Like the techno-centred adult, they are out of touch with the speed of natural life, and are easily annoyed and bored by what they perceive as human slowness and inefficiency."

So when we try to establish a bond between children and nature, we are stuck with two major problems. One, that conventional environmental education runs the risk of leading to despair and indifference, and two, the fact that many children have lost interest in nature because it is less exciting than the world of electronic illusions. We are badly in need of innovative ways to awaken and nourish the supposed innate sensibility of children to the natural world.

## Arts-based environmental education

It is here that exciting developments in the Nordic European countries can be of inspiration. Art is the key here. In the beginning of the 1990's, a group of art educators in Finland, aware of the worsening ecological crisis in the society around them, began to ask if art could help in the development of a more profound form of environmental education. According to Meri-Helga Mantere, who first coined the term 'arts-based environmental education' in 1992, it is a method that "supports fresh perception, the nearby, personal enjoyment and pleasure (and sometimes agony) of perceiving the world from the heart." It aims at "an openness to sensitivity, new and personal ways to articulate and share one's environmental experiences, which might be beautiful but also disgusting, peaceful but also threatening."

In short, aesthetic environmental education is grounded on the belief that sensitivity to the environment can be developed by artistic activities. Motivation to act for the good of the environment is based above all on positive and valued experiences which are often of an aesthetic nature. In the view of Mantere, these experiences can be generated by open and immediate contact with nature and the often new and fresh view of such phenomena that art provides. Arts subjects can develop a positive image for a way of life that conserves nature. This requires a great deal of inventiveness, joy and dignity. To Meri-Helga the connections are obvious: "The early experiences of nature in childhood, the ability as an adult to enjoy these experiences, comprehending the value of the richness and diversity of nature, and the need and energy to act on behalf of nature and a better environment are all interdependent."

One way of defining art is that it can offer a person - both as a 'producer' and as a 'consumer' of art - unique, often non-cognitive ways of interpreting and signifying experiences in the world. Art can feed and guide our sensibility for reality and life. Art activities have a tendency (or at least potential) to reach, in different degrees of intensity, the sensory, perceptual, emotional, cognitive, symbolic and creative levels of human beings. They can sharpen and refine our perception and make us sensitive for the mystery of the things around us. Through that we may experience the world, nature and people in such a way as if we see them for the first time. In the context of learning about nature, art thus has a potential that conventional approaches lack.

Henri David Thoreau in the mid-nineteenth century, wrote in his Journals that he was continuously struggling to meet nature in its elementary directness, unmediated by conventions, categories, concepts, and scientific knowledge. To really understand something, he believed one continuously had to approach it as if it were completely strange. "If you want to learn of the ferns, you have to forget your botany. You have to get free from what commonly is regarded as knowledge of them." In its essence, ecological perception is about perceiving the dynamic relationships between distinctions such as the self and the other, and spirit and matter. By orienting one's personal artistic responses to the sensuous natural environment, one has an opening to embrace our living connection to the world. Through art we can see and approach the outside world afresh.

Art also has a capacity "to stop us in our tracks". An important function of art is estrangement or de-familiarisation. It helps us to review and renew our understandings of everyday things and events which are so familiar to us that our perception of them has become routine. Furthermore, art can open us up to the presence of ambiguity. In all these meanings, art has the potential to offer new ways of coming to terms with the present



Flower Metamorphosis, a drawing made by a 12-year old child during one of Linda Jolly's botanical excursions. Photo: Jan van Boeckel.

human condition, which includes coming to terms with living and surviving in the technosphere.

## Dealing with pessimism

Some educators argue that a clear distinction between different age groups of children should be made when engaging in environmental education. The assumption being that teachers can only take up the subject of the ecological crisis with children of a certain age. According to this view, education should begin with stressing the positive aspects of nature, rather than the disempowering news of ecological decline. As a teacher of horticulture and biology with many years of experience, Linda Jolly has had ample opportunity to learn from the pupils themselves what they associate with the word 'ecology'. To them, she says, ecology means information about environmental problems, e.g. the pollution of air and water, etc.: "There is certainly no lack of awareness of this kind of 'ecology' among the pupils and one could easily be tempted to contribute even more to this type of information and awareness in the school context. Yet the multitude of catastrophic news items pouring out over our children today is apt to engender discouragement and pessimism - a fact acknowledged by many educators today. Young people long for real experiences of nature and what they want to feel is that they can do something towards saving nature. So the question must be: What can schools do to enable children to experience positive ecological actions of humanity in nature as a counterweight to all the disaster reports? How can we help the children to experience nature at a deeper level and attain a better understanding of the relationships between all living beings?"

There is a considerable difference between living in an environment without being conscious of it, and, in contrast, having one's roots in a biological and cultural area and also having an idea of where one comes from, where one is at present, and where one may be going. In a similar vein, according to Meri-Helga Mantere, there is a great difference between seeing the future as only an ominous and vaguely defined threat or void, and seeing it as something one can outline, imagine and influence. She believes that educators have not paid enough attention to the pessimistic idea of the future that is common among many young people, and to the understanding of life that follows from it. Rather than ignoring or suppressing them, she suggests that these fears and feelings of pessimism and hopelessness should be discussed with adults in a spirit of sufficient confidentiality. In that way, previously unexpressed mental images and sources of anxiety would lose at least some of their debilitating power.

One of the main meanings of art through the ages has indeed been its ability to reach the deeper levels of the psyche and to act as a channel and possibility for giving shape to feelings that are often unconscious. This means, says Mantere, that also the 'dark' side of the mind can be integrated into the totality of the psyche, and thus be made relative. If an art teacher is willing to give the pupils and students art exercises in which they can break down their possible fears, life-negating visions and hopelessness in a sufficiently secure context, he or she can act therapeutically: "It is a therapeutic practice to receive these pictures with respect for the students' views and their world of mental images, while at the same time trying to pass on a positive attitude towards life and hope for the future."

## Seeing

Judith Belzer is an environmental artist who strongly believes in the importance of learning new ways to approach the world around us: "If you can learn to immerse yourself in the ordinary things that are very close by, you start to understand what it means to exist in nature. By establishing a relationship with nature based on particulars - the way leaves move in space, say, or attach to a branch - you begin to break our habit of generalising about nature from a distance. This is the first step towards changing our approach to the land and that starts with seeing." In arts-based environmental education, much emphasis is given to clarifying the 'seeing process' and developing skills to express this enhanced vision. Artistic-aesthetic learning, according to Finnish environmental artist Timo Jokela, involves observation, experience and increasing awareness in a holistic way. "Observation is a core issue in interpreting and evaluating the environment. ...Our observations are based on the sum of our previous experiences and our expectations of the future." Jokela argues that many of the phenomena that are brought to our consciousness through art can be understood as the sharpening of schemes of observation and activity: "The romantic artist climbed a mountain and created an aerial perspective model of observation, teaching us to see the beauty of the dim shades of blue in the distance.

The impressionists led us to observe the colour of light determined by weather, and the beauty in the changes of natural phenomena. Art creates new ways of observing, and examining art can act as a model for seeing one's own everyday surroundings in a new way, enriching one's knowledge, experience and understanding. Observational schemes can also stiffen and become confining conventions. In this case there is great educational significance in enriching them. Re-examined aesthetic models lead to new models to observe, classify, understand and construct one's own relationship with the environment."

Environmental art is art that is defined by a place: the form, material and even the birth process of the work takes the location into account. Jokela remarks: "The surrounding space itself may act as an artistic element. This requires that the birth process begins with a close orientation to the location: sitting, watching, smelling, walking - in other words a holistic exploration of the place." Usually the process also includes orienting to the history of a place, the stories it tells, and the meanings given to it by its users.

Many works of environmental art can be seen as environmental processes which aim to change environmental attitudes on an individual or community level. Jokela gives the example of European environmental art by artists like Andy Goldsworthy and Richard Long, whose connection to nature is respectful, almost sacred: "It is as if the work refers to nature's own beauty or significance. The work of art opens one's eyes to see something ordinary and everyday in a new way. This way of work refines one's perceptions and makes one more sensitive to the environment. Here the borderlines between art and philosophy are disappearing, environmental art and environmental philosophy merge together."

Another example is the work of American eco-artist Erica Fielder, who wants to encourage deeply personal relationships with the wild. "Science and technology have given us all the tools and know-how we need to halt environmental destruction today", she says. "But what's missing is a feeling of kinship and empathy that motivates us to include the health of our water-

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shed in our everyday decisions." One way to bring us closer to nature is the Bird Feeder Hat that Fielder created: a wide-brimmed, brushy hat covered with seeds. He or she who wears the hat must sit silent and still in order to feel the movement of birds on the hat. The experience is vivid and sensory, and provides an opportunity to begin experiencing a deeper kinship with a wild creature up close.

### Art exercises in nature

Timo Jokela has a clear view on how environmental art can be applied as a method of environmental education. According to Jokela, forms of environmental art are remarkably suitable to fieldwork and research practised in the environment by learners of all ages. Based on didactic planning models that have been developed in art education, exercises are developed in which the pupil's phase of development and previous knowledge of the subject

are taken into consideration. In the process, the art world and the learner's world are combined into a project in which experiencing, searching for information, and structuring all merge together.

All of them aim to increase one's sensitivity towards the environment. Jokela distinguishes four categories of exercises that can be adapted as methods of arts-based environmental education:

- exercises focusing one's observations;
- exercises which bring forward the processes happening in nature and help us to perceive them more sensitively: growth and decay, the flow of water, the turning of day and night, the changes of light, the wind, etc.;
- exercises which aim to alter set ways of viewing the environment, and finally;
- exercises which test the scale of the environment and human 'limits'.

In the exercises, the 'chaos' of the environment can be organised according to certain chosen variables. The choice can be based on visual observations such as colour, form, size, or on tactile sensations such as soft or hard. Other choices could be based on cognitive concepts such as living, lifeless, belonging to nature, left behind by a human. An exercise could start by making observations and could continue with methods of comparison, classification and organisation. To Jokela, especially well-suited starting points are archetypal symbols such as a circle, square, triangle, point, line, cross or spiral. When the exercise is more process-focused, it could involve paths of movement and rituals in which the participant or viewer takes part.

Such exercises lead to works that create a moment of change; movement and time create new spaces and environments. One assignment to a group may be that they have to go outside and select a tree. Two members of the group then



Erica Fielder's Bird Feeder Hat. The pine siskin is perched on a manzanita twig. Photo by Gina Morris

## Touching the Heart of the Place — Tocando el corazon del lugar

by Matt Karlsen

Over the last two years, I've had the good fortune to explore Andy Goldsworthy's work with young people.

Their reactions to his work tend toward the enthusiastic — whether they are high school students here in Monteverde, Costa Rica; or the 2nd and 3rd graders and middle school students who collaborated on a similar project with me in Portland, Oregon; or, for that matter, my four year-old son and seven year-old daughter. Each time I do this work, I understand a little better the reasons why it is so successful, as well as the important role I've come to believe it should play in environmental education.

Andy Goldsworthy is the best known of a group of contemporary artists loosely affiliated in a movement alternately known as "Environmental Art," "Eco-Art," or "Earth Art." His sculptures are most frequently created in wild settings using the materials present at the site, although there are many exceptions to this generalization. His work stands apart from the art most young people — and their teachers and parents as well — are commonly exposed to.

His intention is "to touch the heart of the place;" "to see something that was always there but that you were blind to;" and to understand the materials with which he is working — to see, for example, the seed within the stone. His art is known to the world through photographs and the film *Rivers and Tides: Working with Time*.

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The primary reason I view this work as important is the extent to which it calls the student/artist to collaborate with the natural world. This conversation between individual and nature is different from the relationship with land present in other — equally valid — traditional tasks in environmental education. In reforestation, the student acts upon the land, shoveling, weeding, and planting. In analysis and inventory, the student's role is more that of detached observer. Here, students found neither mastery over the land nor a viewpoint from a distance: they spoke of a sense of integration. Johannes, a seventh grader, wrote, "I think that when we go to the forest and do this kind of art, (it doesn't) feel like nature and us: we feel like one." Ninth grader Stephanie, on a similar note, said, "When we do this art, we are a part of nature: we are touching nature,

mention eight adjectives about the tree. After that, two other members write a poem together using those adjectives. Then the pupils come back and read the poem to the whole group. Another exercise might be that the group goes outside and each pupil picks up an object from nature without harming it. This could be a stone, a piece of dry wood, etc. They select the pieces according to how the object is felt to resemble themselves. After finding those objects, they come back and each tells in front of the group why they selected just that object.

When the goal of the exercises is to change the way in which one is common to see the environment, an exercise could be as follows: roughly sketch a line or circle on a map. Walk the distance of the line in nature. Stop every hundred metres and document and gather samples. Afterwards, analyse the differences between the experiences you gain this way and the preconceived

impressions you had. Exercises that aim to test the human limits vis-à-vis the scale of the environment often have a communal, cooperative nature. The starting point is a large amount of material and the aim is to bring about a clear change in the environment. Suitable places are places where nature brings the material back into its cycle such as a beaches. An example could be an exercise where the task is to arrange the flotsam on a shore in a mathematical order.

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connecting with it. It's important to have that connection."

These comments from Costa Rica echo those of students I worked with in Portland last year. Second grader Nat felt communion with the place: "I'm actually feeling the water falling down- the whole idea of flowing going flowing going." Zoe, an eighth grader, wrote, "It felt great to create this kind of work. It was a wonderful way to commune with nature and create a piece to honor the Earth."

Why the importance of that connection? Typically, environmental education has focused in the primary grades on that sense of love for place, emphasizing "special spots" or "favorite trees." At the older grades, we acknowledge students ability to think abstractly and generalize, so we challenge them to consider questions on a more global scale. The enthusiasm with which the students I worked with have taken on this "Environmental Art" work suggests a yearning for that more primal connection.

One reason why students are able to achieve that more primal connection is because they are interfacing with their environment using the language of visual art. Art presents the opportunity to see old surroundings in a new way, provoking a sense of wonder. Ninth grader Evert wrote, "I was blind to working in a river to create something... I only saw the river to swim and not to create." The power of art in presenting a new lens with which to see the world is reflected in the comments of Melissa, one of Evert's classmates: "Nature makes good art without help. Andy's art is similar to the art nature does but smaller. Nature does huge art like mountains, waterfalls, and more." Scarleth, an eighth grader, compares this activity to others: "I think this (is) environmental education because when you work in EE you are trying to help nature, like reforestation, and when you are working with art in nature, nature is trying to help you see the things that are beautiful in nature."

That sense of presence, of slow, unmediated experience, is increasingly rare in people's lives - even in the lives of Monteverde's youth. The internet, television, cell phones and video games dominate students' lives outside of school, and the pace of their educational experience is propelled relentlessly by national exams. Students expect things to happen fast, and the natural world will never answer that demand. If we're going to be successful as environmental

educators, we need to find satisfying ways to slow students down. This work is a great teacher in that respect. In *Rivers & Tides*, we watch Goldsworthy's projects collapse in the middle of creation repeatedly and see him respond as a reflective practitioner aware of the growth that these "failures" promoted. In creating this art myself, I often felt the urge to speed the creation process, but never successfully — I could only move as fast as the materials allowed. Eighth grader Ana Gabriela describes such an experience: "We had an idea. We started putting leaves by color, but we didn't know how to connect them together, because we wanted it to be hanging from a tree. At first it fell down like three times, but at the end when at last we had it for one moment without falling down it was a very beautiful moment."

It's that quality of this art — "ephemeral," to use intern Kevin Reilly's description — that resonates yet another critical chord for the students. This ephemeral quality prevents the art from ever becoming a relic — most pieces are gone when we return the next day. Again, this emphasis on process over product, on identifying the unique quality of the moment, is another important aspect of environmental education. Most "product" of any land stewardship we do will not be revealed over a unit of study — often, it won't be revealed in our lifetimes.

If, through this work, students gain a new appreciation for the possibilities present in their relationship with the natural world, then I think a critical environmental education goal has been achieved. Through valuing the vibrant potential of a living place at a unique moment, they've increased their stake in protecting it.

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*Art  
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wonder.*