Arts-based Environmental Education and the Ecological Crisis: Between Opening the Senses and Coping with Psychic Numbing

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ABSTRACT

When educators try to encourage children to establish a bond between them and nature, they are faced with a major challenge. In general, many children seem to have lost interest in nature because it is less exciting than the world of electronic illusions. Educators seem badly in need of innovative ways to awaken and nourish the sensibility of children to the natural world.
Art, through engaging the senses, can be a unique catalyst in developing a "sense of wonder" about nature. Art practice encourages us to see the world again afresh, as if we see it for the first time. This state of mind and sensitivity enhances the ability to tune in with the slower rhythms of the "more-than-human-world."
Children are often rather aware of the ecological crisis that is taking place and that manifests itself most dramatically right now through global warming. A common response to this is psychic numbing, a mild form of cognitive dissociation. Art as a therapeutic practice – without being labeled as such – can help children cope with the "idea of crisis", e.g. through the expression of (often suppressed) inner images and the subsequent discussion of these.
In my paper I discuss how arts-based environmental education can both facilitate children in the opening of their senses to nature, and provide them space for coming to terms with their fears about the ecological crisis.

One can distinguish between two apparently very different ways of employing expressive art practice in teaching children about the natural environment. In the first, art practice is a method to facilitate a reconnection of children and nature. In the other, the creative process with children is a way of aiding them to make sense of, and to cope with, the current ecological crisis. At first glance, the two approaches may look like extremes at the opposite ends of a spectrum. For the primary association of engaging the arts in enhancing nature awareness may be one of joy, of opening an aesthetic sensibility and igniting a sense of wonder. In contrast, the idea of art as an aide (mentally, psychologically and spiritually) to facilitate coping with the ecological calamities around us – both those that are manifest and those that are feared for – most likely will provoke images of doom and gloom, of darkness and despair. In my view, however, both modes of relating to the

environment through art can be thought in fact as being complementary to each other.

Arts-based environmental education

In the early nineties of the twentieth century, a new form of environmental education was conceptualized in Finland, in which artistic practice plays a key role. Different from other types of outdoor or environmental education which offer room for aesthetic experiences – such as the "flow learning" approach outlined in the popular nature awareness books of Joseph Cornell, the "earth education" programs of Steve Van Matre, and "place-based education" as promoted by David Sobel – arts-based environmental education turns the tables in a fundamental way. Art is not an *added* quality, the icing on the cake; it is rather the point of departure in the effort to find ways in which children can connect to nature. To make this clearer it may be instructive to dwell a little on the potential of art practice in education.

What is art? In the definition of Finnish artist Osmo Rauhala (2003, p. 24), art is one of man's antennae stretched out to sense the world: "It is a way of existing and of understanding one's existence…. By sensitizing our perceptions, it makes us susceptible to new information, which may not necessarily come to us in the form of language."

Art activities offer a person unique, often non-cognitive ways of interpreting and signifying experiences in the world. They have a tendency to reach the sensory, perceptual, emotional, cognitive, symbolic and creative levels of human beings. Through the making and contemplation of art, a person's ability enhances to get in closer touch with the inner levels of the psyche. At the same time, such activities feed and guide our sensibility for reality and life. They can sharpen and refine our perception and make us sensitive for the mystery of the things around us. In the context of learning about nature, art thus seems to have a potential that conventional nature education approaches lack, as these are more often than not based on a model of handing over a body of knowledge that is already established in advance.

Through art, we can see and approach the outside world afresh. Art can hit us unexpectedly, catch us off-guard, and sometimes provoke us. This estrangement or defamiliarization is an important quality of art. 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. In that sense working with art encompasses a learning process that is inherently experiential and open-ended. Seeking and pushing the boundaries. American cartoonist Scott Adams once put it this way: "Creativity is allowing yourself to make mistakes. Art is knowing which ones to keep." And Stephen Nachmnovitch has beautifully elaborated how, in musical improvisation, your "mistakes" can be meaningful gifts that allow you to move along in new and exciting ways. Finally, art can open us up to chaos, to the presence of contradiction, paradox and ambiguity. Especially this latter quality of art can be of great value in our current times, as I will try to elucidate later.

In 1995, Finnish art educator Meri-Helga Mantere defined arts-based environmental education (AEE) as a form of learning that aims to develop environmental understanding and responsibility "by becoming more receptive to sense perceptions and observations and by using artistic methods to express personal environmental experiences and thoughts" (1995, p. 1).[1] In her view, AEE can also be an approach that teachers can employ to address matters of value and lifestyle with the children, particularly questions that are raised by the ecological crisis. When such issues are approached using artistic methods "otherwise unattainable

[1] The aspect of "environment" in arts-based environmental education, as it is being developed in Finland, pertains to both the built (man-made) environment and the natural environment. In that way the connotation of the word is more in line with the use of the word in "environmental art" than with Anglo-Saxon meanings of environmental or outdoor education. My focus in this paper is primarily on AEE as a specific approach to connect to nature, or more aptly, to what David Abram (1996) called the "more-than-human-world."

areas of experience" can be reached (Mantere 1995, ibid.). AEE tends to have these two sides: it aims to increase the students' openness and sensitivity and it can help them find new and personal ways to articulate and share their environmental experiences, "which might be beautiful, disgusting, peaceful or threatening" (Mantere, 1998).
In a personal communication, Mantere provided me with an example of an AEE exercise in which both dimensions are combined. In this task, children are asked by the teacher to go out in nature and find three different natural objects: one related to "birth", one to "living", and one to "death." Subsequently, upon return, they are asked to speak in the group about the items they have found and to give expression to what they have come up with in the form of an artwork such as a poem or painting.

Radical amazement

In the following I want to focus a bit more on the value of art practice in connecting with nature. In his book *Drawing Closer to Nature*, Peter London asserts that the creation of art is not some esoteric activity of a gifted few; to him, it is the natural way of forming meaning whenever important issues are addressed sincerely. Art can be an important help when one wants to form meaning from nature: "The ways of Nature are not self-evident. Nature is deeply layered, just as we are…. To access ever-increasing layers of Nature, both inward and outward, we must prepare our selves. The artistic process – which we now employ mostly to make aesthetic amenities – can be employed to prepare us first to *see* and then to know the adjacent and subsequent levels of Nature, with which we are barely familiar" (London, 2003, p. 63). In this, London is inspired by the writings of Abraham Joshua Heschel, who firmly believed that our goal should be to live life in "radical amazement." Heschel would encourage his students to get up in the morning and look at the world in a way that takes nothing for granted. For him, radical amazement refers to all reality, not only to what we see but also to our own selves "that see and are amazed at their ability to see."
Rachel Carson, in her posthumously published book *The Sense of Wonder*, encouraged this attitude of curiosity as well. For most of us, she says, knowledge of our world comes largely through sight, yet we look about with such unseeing eyes that we are partially blind. One way to open our eyes to unnoticed beauty, she suggests, is to ask ourselves: "What if I had never seen this before? What if I knew I would never see it again?" Carson shares a story of a summer night spent with a friend on a peninsula with waters at all sides. It was a clear night without a moon. They lay on their backs and looked up at the sky and the millions of stars. Once or twice a meteor burned its way into the earth's atmosphere. Having witnessed this, Carson reflects: "It occurred to me that if this were a sight that could be seen only once in a century or even once in a human generation, this little headland would be thronged with spectators. But it can be seen many scores of nights in any year, and so the lights burned in the cottages and the inhabitants probably gave not a thought to the beauty overhead; *and because they could see it almost any night perhaps they will never see it* (Carson, 1998, p. 69; italics mine). For Paul Valéry, "to see is to forget the name of the thing one sees." Claude Monet gave a similar advice to art students: "Whenever you go out to paint try to forget what objects you have in front of you – a tree, a house, a field, or whatever. Merely think, here is a little squeeze of blue, here an oblong of pink, here a streak of yellow, and paint it just like it looks to you, the exact color and shape, until it gives your own naïve impression of the scene before you." Such a "being in the moment" provides endless possibilities for artistic expression, as his contemporary Paul Cézanne affirmed: "The same object seen from a different angle, gives a subject for study of the highest interest and so varied that I think I could be occupied for months without changing my place, simply bending more to the right or left" (both painters quoted in Fletcher, 2001, p. 185).

Receptivity

To me it seems that, in such instances as both naturalists and artists describe here, a key relationship between creativity and receptivity is at play. The relationship can be perceived as such, that a greater receptivity towards our environment has a stimulating impact on our creative endeavors. There is also a mirror relationship: when a person's creativity is provoked, his or her receptivity to phenomena in the environment may be increased, concurrently. According to Stephen Nachmanovitch, 1990, p. 34), the creative and the receptive, making and sensing, "are a resonant pair, matching and answering each other." David Abram, in a similar vein, speaks of the need for any living creature to adapt to the immediate situation in which it finds itself: "However determinate one's genetic inheritance, it must still, as it were, be woven into the present, an activity that necessarily involves both a receptivity to specific shapes and textures of that present and a spontaneous creativity in adjusting oneself and one's inheritance) to those contours. It is this open activity, this dynamic blend of receptivity and creativity by which every animate organism necessarily orients itself to the world (and orients the world around itself), that we speak of by the term 'perception'" (Abram, 1996, p. 50). In more common ways of understanding perception within the field of cognitive psychology, there is less appreciation of this continuous interplay that goes on: the process is usually understood as one-directional, as in this scholarly definition: "Perception refers to the way in which we interpret the information gathered (and processed) by the senses. In a word, we *sense* the presence of a stimulus, but we *perceive* what it is." (Levine and Shefner, 1981, p. 1). As they put it, our sensations require interpretation in order for perception to occur.

Nachmanovitch's and Abram's focus on the reverberating pair of receptivity and creativity brings Heidegger's concept of *Gelassenheit* (releasement) to mind, which can be understood as an state of "letting be." But this equanimity it is not mere passivity. It is a form of engagement with the world whereby we actively keep ourselves in a state of receptivity for what may occur to us. This kind of receptivity implies allowing for a state of what one might call "mindful vulnerability" to the world. As Laura Sewall (1999, p. 118) elegantly puts it: you must first open the palm to receive.

I believe art practice has such great value in efforts to "draw closer to nature" because it encourages such an open "orienting to the world." I will try to argue the relevance of studying and developing arts-based approaches further by relating it to the context of the radical altered relationship children nowadays have to nature.

Distance from nature

Current efforts to heighten children's sensitivity to their environment take place in a time when children are more and more disconnected from nature. In the United States, by the 1990s, the radius around a home where children were allowed to roam on their own had shrunk to a ninth of what is had been in 1970. Today, average eight-year old kids in America are better able to identify cartoon characters than native species in their own community, such as beetles and oak trees. In his *Last Child of the Woods. Saving Our Children from Nature-Deficit Disorder* author Richard Louv gives more of these graphic indications of the "nature gap" that is manifesting itself. Louv quotes a six-grader from San Diego who tells him that, rather than playing outside, he likes to be in the house "because that's where all the electric outlets are" (Louv, 2005, p. 10). The attitude of the boy seems typical. In a recent feature article on the detachment of children from the natural world, Peter Fimrite (2007) quotes a teenager saying that in Yosemite and other national parks "the only thing you look at is the trees, the grass and the sky." The boy found the experience of going to the shopping mall far more exhilarating.

Twenty years ago, Jerry Mander, author of *Four Arguments for the Elimination of Television*, gave the following explanation for the lack of appeal of nature to people in the information age:

> When you are watching TV, all this information is moving very quickly; it is a very hyperactive kind of imagery. We have images constantly fractured. In fact, you are living in a universe that, from a perceptual point of view, is impossibly fast. Then you turn the set off after a while, and you are just in the room again. The room is not moving around; it is not cutting forward and backward in time. There are no cartoons appearing in front of you, there is no music and dancing, there are no products moving about, there is no exciting news from the world, there are no stories being told – it's just the room. Then you go outside, let's say into nature. Nature is *really* slow. I mean you cannot see the blade of grass growing. To experience nature requires being very slow; very tuned in. It requires perceptual systems which are very calm. And my believe is that the more that people are involved in this fast information – and in America the average person is doing this for five hours a day – the more their perceptual experiences are living at the speed of the media. They are unable any longer to deal with the quiet of ordinary life. Americans cannot perceive things that are slow anymore. … What is basically happening is that they have been wiped out as perceptual creatures (Mander, in a radio interview by Germaine Groenier, 1986).

Now, with the seduction of computer and video games *next* to the appeal of TV, nature has become even more "boring" – or worse: irrelevant – to youngsters. In densely populated countries like the Netherlands, the situation is particularly alarming: a study carried out in 2005 found that only 17 percent of the children between 8 and 18 years respond that they like to be in nature. Many have never even been inside a nature reserve (YoungMentality, 2005). One perhaps would assume that the situation would be different in countries were there is still abundance of nature left. However, the "nature gap" seems to be present in such countries al well. Riitta Heikkinen (2002), for example, reports on a survey among schoolchildren in Finland which found that they are unable to identify even the most common tree species. Alarmed by this finding, the educational authorities have launched extensive campaigns to re-establish the lost link between forests and the "forest-dwelling" Finnish people.

Blaming this situation solely on the attractiveness of sitting behind computers or playing video games – though this certainly constitutes an important factor – would be too simple. Louv mentions other factors that come into play such as an exaggerated fear of the dangers of being out in nature (what he calls "the Bogeyman syndrome"), worries about liability issues, and the unchecked spread of urban sprawl into natural areas. Underneath these phenomena, however, a more profound cultural transformation seems to be taking place, giving lead to the disconnection between children and nature.

One of these undercurrents at a deeper level is a slow but profound change in our relation to our environment, a deep shift in how we experience things. We – and particularly children – lack possibilities and seem less and less able to learn about the world first hand through our own actions in it. Most impressions come to us "second hand" by representations provided by others – with major consequences. As Robert Michael Pyle (1993, p. 140) points out: "One of the greatest causes of the ecological crisis is the state of personal alienation from nature in which many people live. We lack a sense of intimacy with the living world. The extinction of experience implies a cycle of disaffection. The extinction of experience sucks the life from the land, the intimacy from the connection."

Overstimulation

How well are humans able to deal with all the information coming our way? Our brains are set up for an agrarian, nature-oriented existence that came into focus 5,000 years ago. Social philosophers such as Michael Gurian argue that

human beings neurologically haven't caught up with today's over-stimulating environment. Rachel and Stephen Kaplan (1989) have done extensive research on what they define as "directed attention fatigue." This "condition" builds up as follows: at schools, in business, or when driving a car, our brain is continuously focused in order to do the job. We sort and prioritize. The brain aims to solve problems and to reach results. But there is a limit to how long the brain can be in this focused attention mode. After a while, we need to take a break. We notice when the brain is overstressed when we become tired and easily irritated. If we then do not give the brain rest in the form of an environment with low information flow, we can become ill. It then becomes difficult to think clearly, our memory fails us and we feel worn out.
Yet, in our culture the dominant move still seems to be towards finding and taking in more and more external stimuli. New behavioral modes and capacities come to the fore, such as multi-tasking, which can be defined as the ability of a person to perform more than one task at the time. For an extreme example one may think of a teenager sitting on the couch, doing his homework with his laptop on his knees, simultaneously chatting via MSN with his pals, receiving and sending text messages through his cell phone, and also keeping an eye out for what is happening on a television screen further away in the room.
If there's *one* thing our culture has given us, culture critic Rebecca Solnit (2004) suggests, "it is the opportunity to have something else that's next, or just multi-taskable right now. The way one casually meets people at parties is how we mostly meet the world's places nowadays."
Former Apple and Microsoft executive Linda Stone believes that we have moved even beyond that. According to her, we are faced now with a form of *post* multi-tasking behavior, that she termed "continuous partial attention." This is the difference:

> When we multi-task, we are motivated by a desire to be more productive and more efficient. We give the same priority to much of what we do when we multi-task…. We get as many things done at one time as we possibly can. In the case of continuous partial attention, we are motivated by a desire to be a *live node on the network*. We want to connect, we want to effectively scan for opportunity and optimize for the best opportunities – activities or people – in any given moment…. To pay continuous partial attention is to keep a top level item in focus, and constantly scan the periphery in case something more important – to us, in that moment, – emerges (Stone, 2006).

Summarizing, Stone says: "We were everywhere except where we actually were physically." This era, with its focus on being connected all the time, is contributing to a feeling of overwhelm, over-stimulation and a sense of being unfulfilled. She believes that continuous partial attention can, like so many other things, be a very functional behavior – that is: in small doses. In large doses, however, "it contributes to a stressful lifestyle, to operating in crisis management mode, and to a compromised ability to reflect, to make decisions, and to think creatively" (Stone, ibid.).

Failure of our imagination

In contrast to these new and detached behavioral modes that are evolving, it seems to me that current developments in our environment – more than ever – call for the exact opposite: they urgently demand our focused attention and the full engagement of our reflective capacities. The global ecological crisis we are facing has many sides. To name some of the more manifest, media-covered phenomena: overpopulation, global warming, ozone depletion, biodiversity loss, ecosystem collapse, toxic pollution, ocean degradation, arable land loss, fresh water shortages, deforestation and species extinction. Zeroing in on just the last one: current estimates are that 30,000 species are going extinct each year, up from 1000 species per year in the 1970s. Scientists call it the Sixth Mass Species Extinction Event.

How are young people, growing up in this age, to make sense of and cope with all this gloom and doom? For many, it may simply be too much to take in, given the constant information overload and fractured attention. I believe that there is yet another, less obvious reason for tuning off, which may have to do with the limits to the human capacity of imagination.

More than half a century ago, German philosopher Günther Anders called attention to the inadequacy of human imagination in face of danger. After Auschwitz and Hiroshima, Anders had come to the conviction that there are certain realities that we cannot imagine ourselves, realities that we ourselves have created. According to him, the capacity of the human faculties of imagination and representation fails to match the speed and ferocity of the century's key developments and events. In the course of time, he argued, the relationship between acting and imagining has changed. To our predecessors, it was a matter of common sense that the realm of imagined possibilities was much bigger than what could be done in practice. But our condition, Anders maintained, is the complete reversal: the human capacity to imagine things is limited, compared to the seemingly endless technical capacity of his instruments.

Experimental psychology has identified thresholds, where certain stimuli remain so minute, that they remain subliminal to us. They are not registered by conscience because they remain below the threshold of perception. Anders suggested that we should also consider the opposite, if we are to understand certain phenomena of our time. There may be stimuli which are simply *too big* to be perceived by our senses. Those stimuli are *super*-liminal. And that what we no longer can perceive, does not impact us emotionally. Because of that, our responses remain inadequate (Anders, 1972; Van Dijk, 2000).

Global warming

Global warming may be a current superliminal phenomenon that does not really "register." Bill McKibben, in *The End of Nature* (1989) was one of the first to point out to a general audience what the consequences of global warming would be. Fifteen years later, in 2003, he reflects on the reasons why people find it so hard to grasp what's going on. Like Anders, he calls it "a failure of imagination." We have escaped our most recent fear, nuclear annihilation via the Cold War. Because of that, McKibben suggests, we resist being scared all over again. In his view, the contrast between two speeds is the key fact of our age: between the pace at which the physical world is changing and the pace at which human society is reacting to this change.

But how is it for children and their imaginative capacities with regard to climate chaos we are experiencing today? In a recent web article, Sonja Waters, office manager of the nonprofit environmental organization Grist, gives an account of an incident that she had with her teenage daughter that thoroughly shocked her. Her daughter told her that she was having climate nightmares. Here is an excerpt of the unsettling conversation between mother and daughter:

> Nikki: "The world is going to end anyway, so why bother?" Her shoulders slumped as she pondered her closed books.
> Sonja: "I thought I had heard all the excuses for not doing your homework. What are you talking about?"
> Nikki: "Global warming, Mom, jeez. The polar caps are melting. The world as we know it will end very soon. We can't stop it. Humans suck" (Waters, 2007).

Waters says that she is, in general, a proponent of exposing kids to "the dark side"; she believes children need to see the bad things of our world, provided that there are adults around who can guide them and in which they can put their trust. But the realization that kids like Nikki think that they will not be here in 50 years, makes Waters wonder: "What the hell are we doing to our kids?" If this example is typical of the attitude among youngsters in Western countries, a serious concern seems warranted about the extent to which children are able to deal with the gloomy future

forecasts that are put on their plates.
One reaction people may have to extreme mental pressure is the blunting of their sensibilities, through unconsciously (or by volition) diminishing their capacity or inclination to feel; a blocking of feelings, images, or both. Psychiatrist Robert Jay Lifton calls this "psychic numbing." This reduced emotional responsiveness to overwhelming experiences "is a very basic tendency of human reaction toward threat, particularly when that threat is vast, ultimate, and yet so technologically distanced as to become unreal." In a recent interview for Johan Söderbergs film *Planet* (2006), Lifton speaks particularly about numbing in the context of man-induced global warming. He maintains that humans share a profound fear, even a terror, of destroying the human habitat with our own technology, by our own hand, and to no purpose. That kind of fear, he asserts, enters into religious areas, because we now know that we can do what in the past only God could do, which is to destroy the world. According to Lifton, nothing that we do in the world is entirely free of this fear: "It is a shadow underneath everything." In the same film, Swedish psychoanalyst Marta Cullberg-Weston makes a similar observation, stressing the "survival value" of numbing:

> When we get very threatening information, we *do* deny it, we put it aside, and even if we *hear* the information, and even if we can sort-of *believe* the information, we still manage to suppress it in some way.... [People] find these doomsday sort-of scenarios so threatening that they don't want to take them in. If this information arouses too much anxiety inside, defense mechanisms come into play. And we must not forget that these are *survival* mechanisms; originally they are really there to help people not to be flooded by anxiety.

According to Chellis Glendinning (1993), a "dead to the world" approach to life has become the *modus operandi* of most people living in mass technological society: "How could we be otherwise, given the plethora of threats and dangers?" The person defends himself by making himself small, by drawing a curtain over his sensory organs.

High demands for future education

In contrast with these variations on the pessimistic diagnosis that cognitive dissociation is the prevailing response vis-à-vis the ecological crisis, clinical psychologist and educator Maureen O'Hara (2005) believes that the current existential predicament of humanity offers also a learning opportunity – that is: *if* we take steps to avoid possible cultural and psychological meltdown. What is needed, she argues, is a cultivation of "the necessary capacities of mind to live well in an unavoidably uncertain world." Approvingly, she quotes novelist F. Scott Fitzgerald: "The test of first-rate intelligence is the ability to hold two opposed ideas in the mind at the same time and still retain the ability to function. One should, for example, be able to see that things are hopeless and yet be determined to make them otherwise." In our time, says O'Hara, we need the capacity to hold not just two opposing ideas at the same time but many, and we have to resist the desire for easy certainty and premature closure. There is a need to invent new kinds of socializing experiences, so that people learn to see the world through new eyes and to take in its complexity without becoming overwhelmed by it:

> We need to cultivate intuition and appreciation of the non-rational; not as substitutes for reason and skepticism, but as a complement to them. We need to cultivate both/and thinking, enhance our capacity for holistic perception, gestalt awareness, network logic and pattern recognition. Along with a capacity to focus, we need to be at home with fuzziness and a wide-angle view. We will need to balance a fear that we have not enough information with the problems of having too much. People will need to become comfortable in a world of fluid boundaries, understanding

> the world as a continuous web of relationally connected integrities (O'Hara, 2005, p. 7).

Art working in the opposite direction

One way of looking at art is that it can offer a person 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 to reach, in different degrees of intensity, the sensory, perceptual, emotional, cognitive, symbolic and creative levels of human beings.
Expressive art therapist Shaun McNiff (2004) speaks of "aesthetic contemplation", which enables us to find a new relationship to our environment. When looking deeply at things, he writes, we get outside ourselves and become immersed in the object of contemplation. This meditation brings new and vital energy into our lives. The creative process helps to reframe the perceived problem and to relate to it in a different way.
In our lives so much more attention is given to separations than to connections, and creativity suffers because it depends upon a free circulation of energy and the making of new relationships. Art is often aimed at finding new associations, connecting that what before was or seemed unconnected. Instead of taking things apart in smaller and smaller units – the way in which reductionist science evolves – it is interested in finding relationships, connections. In that way it resonates with the different approach to biology that Gregory Bateson advocated: to look for the pattern that connects. If our purposive rationality is not aided by such phenomena as art, religion, dream, and the like, it is "necessarily pathogenic and destructive of life" (Bateson, 1972, p. 146). Elsewhere Bateson stated more bluntly: "Break the pattern which connects the items of learning and you necessarily destroy all quality" (1980, p. 8).
Art is also about coming to grips with ugliness, darkness, and failure. Students can learn something for life by means of artistic processes, namely that going through failure and experiencing one's own inadequacies need not involve losing one's feelings of self-worth. Dorothee Scheck-Köhler puts it this way:

> …The great opportunity which art offers us is that it can help relieve children of their fear of coming to grief; it can help them experience that you can only gain something if your efforts include, or even provoke, the possibility of failure. A defeat is no such thing if it provides the starting point for something new. The most important aspect of the artistic process is the experience of actively taking hold of the spaces offered by freedom…. The spaces in which free artistic encounters take place are always emotionally loaded, but in a positive sense. There are stages of perplexity and despair which can be followed quite suddenly by a new breakthrough and experiences of joy (Köhler, cited in Stockli, 2001, p. 10).

An important aspect of art is its ability to deal with contradictions and ambiguity. For example the effort to find a future perspective and meaning in one's life and to simultaneously acknowledge the immensity of the challenges we are faced with. The scope and magnitude of today's environmental crises is hard, if not impossible, to grasp. Yet, by ignoring the problems, they do not go away. For children, they may pop up in a nightmare, or unexpectedly find a way of expression in art works. It is here that AEE can also be of therapeutic value (with the big advantage of not having the heavy label of being "therapy"). According to Mantere, one of the main meanings of art through the ages has 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. Because of this she maintains that also the "dark" side of the mind, once having achieved for, can be integrated into the totality of the psyche, and can thus be made relative. Without becoming an art therapist, an art teacher can nevertheless act therapeutically, assuming a willingness to give pupils and students art exercises in which they can

break down their possible fears, life-negating visions and hopelessness in a sufficiently secure context. Mantere (1992, p. 23): "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."
Psychoanalyst Rollo May, in his *The Courage to Create*, writes that it requires courage to live with sensitivity. This courage to confront the "anxiety of nothingness" will be the opposite of despair, not the absence of it. It is the capacity "to move ahead *in spite of* despair" (May, 1975, pp. 11-12; italics mine). This attitude is also contained in this famous quote, attributed to Martin Luther: "If I believed the world were to end tomorrow, I would still plant a tree today."

Awakening the senses and coping with numbing

From the realm of psychotherapy, writers as James Hillman, Thomas Moore and Robert Sardello have put forward the necessity of re-sensitizing our aesthetic responses to the environment, whether natural or man-made, if ecological or political catastrophe is to be avoided (Maclagan, 2001, p. 19). Yet, as Bill McKibben (2005) points out, we are faced with a curious paradox. In the course of a couple of generations our species has managed to powerfully raise the temperature of an entire planet, to knock its most basic systems out of kilter. But oddly, he says, though we know about it, we *don't* know about it. It hasn't registered in our gut; it isn't part of our culture.

> Where are the books? The poems? The plays? The goddamn operas? Compare it to, say, the horror of AIDS in the last two decades, which has produced a staggering outpouring of art that, in turn, has had real political effect. I mean, when people someday look back on our moment, the single most significant item will doubtless be the sudden spiking temperature. But they'll have a hell of a time figuring out what it meant to us….
> It may well be that because no one stands outside the scene, no one has the distance to make art from it. But we've got to try. Art, like religion, is one of the ways we digest what is happening to us, make the sense out of it that proceeds to action…. We can register what is happening with satellites and scientific instruments, but can we register it in our imaginations, the most sensitive of all our devices?

If we follow up on McKibben's plea and call upon art practice as a way in which we can help children to make some sense of the ecological crisis, and if we engage art to re-sensitize their response to the natural world, does it automatically follow that they thus are better predisposed to look the environmental crisis "straight in the face"? In other words: when children become more aware of their connection to nature, does that mean that they are better equipped to deal with the contradictions of modern human existence, rather than living in a continued state of numbing, of reduced emotional responsiveness? Or does it perhaps make them *too* vulnerable, in the sense that in the modern world there seems to be little room for – let alone survival value in – increased awareness of our environment? If the latter is the case, then one perhaps has to concede that a certain level of cognitive dissociation, of numbing, is appropriate and indeed a basic human "survival mechanism" to cope with severe circumstances – that is, living in a time, in which, as McKibben put it, the most basic systems of the earth are thrown out of kilter.
It occurs to me that this issue is hardly taken up in the public debate. Most of the attention is geared towards finding practical, often technical, fixes to the ecological crisis. It is this pragmatic, problem-solving oriented approach that many people seem to be most comfortable with. The existential dimensions of the crisis, especially for the younger generation, remain at the periphery of our attention.

In contrast to the option of mindfully shielding our sensory organs under a protective curtain, people like psychoanalyst Robert Sardello argue for addressing "the dark side" squarely.

> Freeing the soul from fear means participating in fear, not naively and not like a sheep being led to slaughter, but with the greatest intensity of consciousness and attention we are able to muster. Heightening of consciousness is involved but it is here inseparable from the pain that goes with any expansion of awareness and does not have as its aim mastery over what threatens us. This approach demands increased attentiveness to the particularities of our experience, which can come only by becoming acutely conscious to the realm of the senses – more open, more awake, more alive, precisely in those situations where freedom would seem to be offered by escaping, by going numb (Sardello, 1999, p. 21).

In a similar vein, for Laura Sewall, the experience of "paying attention" is the flip side of psychic numbing. But this awareness brings along a great challenge too:

> Can we awaken, or is it too painful to do so, to be so? Do we choose the superficial comfort of closing down our perceptual channels, defending ourselves but simultaneously missing the juice and vibrancy of the world? Or do we look right into what is truly before us, the whole scene stretching between the sweet sublime and nasty, god-awful reality? (Sewall, 1999, p. 94)

In these two citations, the challenges of participating in fear, or looking straight into the dark reality, are suggested to adults.
But what about children? How can we assist them in responding adequately to their fears, especially to those provoked by the environmental crisis?

Maybe the way children are approached about and assisted in dealing with this crisis should be fundamentally different. Finnish art educator Sara Tobiasson (2007), working on the Åland Islands, relates the following experience on her web log:

> Today one of the youngsters I get to borrow during the days sighed and said; "I'm so tired of saving the world. Can't we do something else for a change?"
> … In the classes for biology and geography there has been one environmental problem after another that we have tried to understand and come up with a solution for. Too many crises. And I see that the disasters that the Western civilization has built up are now thrown in the arms of the young generation. It rolls over them through every media, and it probably just makes them numb….

In the next part, Tobiasson tries to find a way out of this negative spiral.

> After young J said he was tired of saving the world I realized we have to work the other way around. Through learning to stop and give beauty time one probably saves the world a little. We all influence each other in so many ways, and especially when one has the ability to share what's amazing and untamed in this world he or she plants a seed than can become a garden. All of you that are out there somewhere sharing what you feel is the good and beautiful of this life – I think you're doing an oh so important job.

Sonja Walters, the mother of Nikki, whom I quoted here earlier, believes that parents might be overlooking a very critical aspect of the mental health of their children: "Somehow we need to start making strides sooner to either convey our ability to fix this problem, or show our children how to live fruitful and productive lives in the future, under severely different circumstances. I call it

planning ahead. …we need to figure out how to take the fear out of a changed future. We as parents need to take the reins to ensure that our children can have a beautiful, hope-filled life" (Waters, ibid.). Saving the world a little by "giving beauty time," and "planning ahead" for a different future are, in themselves, important steps teachers and parents can take to move out of a deadlock situation. But as such, they don't take away the fundamental dilemma. For if we as adults (for example through art practice) encourage children to be more open, sensitive, porous, receptive – and through that, more vulnerable – *in the kind of world that we have today*, we, through that, may be doing something which is at odds with assisting them, first and foremost, in developing elementary survival skills for these exceptional times.

When I raised this concern with Meri-Helga Mantere in a recent interview, she acknowledged the dilemma, but at the same time she maintained that doing this is our only hope, if we are to have enough people in the future with a matured sensitivity towards the world:

> Difficult times such as our current era call for the utmost creativity of the minds, psyches and spirits of people, both as individuals and as members of a collaborating group. They need a sense of inner balance in a time where they feel threatened – consciously or unconsciously – and where some find themselves occasionally at the fringe of despair. The demanding role of wise leaders, teachers and parents is to keep up hope. One needs to be vulnerable, because vulnerability *is* sensitivity. If one is connected to one's senses, if one is connected to one's heart, to other humans and nature, if one is alive, one is vulnerable. As a teacher, one has to understand and feel somehow how much children can take. The age group is very important. Making young kids worried would be very unwise and unethical. Instead, as a teacher, one has to give examples, stories, knowledge, views, images, that are positive and life-enhancing and supporting. One has to help kids to imagine alternative ways out of problems and to give examples of what they can do together with others in their community. In short, one should teach them that there are difficult questions, but that there might be solutions to these (Mantere, personal communication, 2007).

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Awareness of this environmental crisis has grown since the 1970s, partly as a result of the prominence given to major so-called 'environmental' disasters such as the Sahelian droughts of the 1970s and 1980s and the nuclear accident at Chernobyl in 1986. A major assessment of the global environment published in 1999, the UNEP Global Environment Outlook 2000 report (UNEP 1999), drew attention to two critical, recurring themes: the fact that the global human ecosystem is threatened by grave imbalances in productivity and in the distribution of goods and services - as evidenced by the fact that a large proportion of the human population lives in poverty, and that a widening gap exists between those who benefit from economic and technological development and those who do not. Environmental education (EE) and education for sustainable development (ESD) are not, nor can they ever be, â€˜just anotherâ€™ subject to be taught, given the challenges and opportunities outside the classroom and lecture theater to which it addresses. Following the contours and character of the ecological crisis that has given rise to it, ESD necessarily must be interdisciplinary, action-orientated, and holistic and combine both cognitive and conative aspects, as well as integrating both ethical and political analyses. This is a tall order! It is no easy task, but ESD did not create the conditions and problems, which has given rise to its development. Nature and our environment being one of the greatest treasures for humanity are daily destroyed by human beings. While lots of people do care for nature and try to solve ecological problems, others do not know even how to handle it. Ecological problems need urgent and minute observation. Every person has their own attitude on this issue. If you want to discuss this topic with your Intermediate students, here are some lesson ideas. Task 1: Warm-up. What does it mean to be eco-friendly? Match the activities with the pictures. Choose the activities which you think are eco-friendly. Using plastic.