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## AFFECTION FOR NATURE AND THE PROMOTION OF EARTH STEWARDSHIP IN CHILDHOOD

by Roger A. Hart, PhD

It is a great irony of modern life that while technology has enabled us to perceive the complexities of environmental responses to human action, and while the mass media have enabled these to be brought close to our home, children spend considerably more of their lives isolated from direct interaction with diverse natural environments than did their parents. The environmental education of children is being promoted as essential to the establishment of a citizenry which is more caring toward the environment. But education will not be enough. In this essay I will argue that a deep, lasting concern for the natural world must come from a genuine affection for it, and how this affection is engendered is an important question for us all. Within this broader question, I will consider the importance of gardening in fostering children's general caring for the environment, or "earth stewardship" as some have called it.

Not all environmentalists believe it is necessary for all citizens to develop an active, responsible relationship to their environment in order to deal with the world's environmental problems. Many believe that it is only necessary that the general public be conscious of the importance of the issues so that politicians and technocrats can solve environmental problems through the improved application of scientific knowledge and technology to the problem. For them, environmental education in the form of textbook learning and the development

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of an abstract understanding of ecology would be quite adequate. However, for those who see the ultimate solution to our relationship to the environment as requiring changed styles of living and a more decentralized participatory democracy, the fostering of earth stewardship is essential (Berry, 1987; Leopold, 1966). They see that community environmental management for sustainable development must come from the multitudinous actions of individuals. This calls not only for the development of a personal knowledge of the natural world, leading to affection, but also the skills of resourcefulness, cooperation, and, more generally, community-building. Before outlining some of the ways of cultivating these qualities in children, I would like to discuss some conceptual issues which cloud the conception of children's relationship to nature.

First is a notion that children are closer to nature than adults. Poets try to capture the loss of self-consciousness of children and their fresh, full experience of the thing itself, as best known in the poem of Whitman beginning "There was a child went forth. . . ." While there is a greater immersion in sensory perception in childhood, there is no reason to believe that this necessarily means that a child has a closer, more caring relationship to what is perceived. Anyone who has seen children stoning crabs on a beach or burning cigarettes into frogs knows that. Contact with nature alone is not all that is required for a child to spontaneously develop understanding of and a caring relationship to the natural world. The role of adults is crucial.

We can speculate why, in recent years, children have become noisy proponents of environmental action. There are probably a number of reasons. First, children are more receptive to change and less integrated into the existing economic system and social order. They see a need for less damage to the environment and do not yet see the many barriers related to their own lives which might prevent this from being achieved. Since the environmental movement in the U.S. in the early 1970s, there has also been a great deal of environmental education in the schools to serve as a valuable information source on the nature of environmental problems. Third, there has been a great deal of media influence, particularly from media stars on television. I suspect these pathways to stated concern are inadequate to establish the kind of deep, lasting caring for the natural world we are looking for.

Behind the stated concerns of individuals for the environment, there are at least three possible motivations. One is a fear based on self-preservation; the second is concern for the welfare of present and future generations; and the third is a sense of the intrinsic worth of the natural world itself. The third is the only form of true concern for the non-human environment and it is the focus of this essay.

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Louise Chawla and I have tried to develop a theory on why some children develop a caring relationship to the natural world (Chawla & Hart, 1988; Hart & Chawla, 1982). This has involved in part modifying theories of the development of sympathy and moral reasoning, both of which are built only on the developing concern children show for other people. Rather than simply applying these theories to the natural world, there may well be some special aspects of children's relationships to the plant and animal world which should modify these theories of developing sympathy and morality in the child. The existing research concludes that empathy of a young child with another child's cry is a foundation of human sympathy. This emphatic arousal subsequently combines with sympathy, or feeling *for* another, rather than just *with* another person. All of us have observed how intensely important animals become for most children at some time during their development. Is there a special value of animals in the development of sympathy in children? If so, to what extent could such developing sympathy transfer to the plant world? Susan Isaacs presented evidence long ago that preschool children spontaneously ask more questions and show more interest in the animal world than in the plant world because animals are in fact more animate (1930). Is there then some value in helping children see the connection between these different parts of the non-human environment? I suspect that animals are not only interesting to children because they move and at least some of them seem "cute"; I also suspect that children, in their struggle to understand the meaning of life and death, experience

animals as somehow existentially closer to people. If this is so, then maybe children would be much more interested in the plant world if they were better exposed to the mystery and indeed the magic of the life and death of plants.

I think it would be irresponsible of me to talk about what *all* children's experiences should be with the plant world. For the healthy development of individual children, there is not one set of rules regarding desirable environmental experiences. I do believe, however, that for the healthy development of the planet the majority of children ought to have opportunity to spontaneously contact a diverse natural world and have opportunities to care for plants and for animals. Unfortunately, the ideology of child-rearing differs greatly among parents, and this difference is revealed in part by dramatic differences in the kinds of landscapes made available to children, sometimes consciously, sometimes unconsciously. For those of us who are concerned with this fostering of earth stewardship, it is not enough for us to ask what environmental education programs are being offered to children and what programmed experiences are made available through zoos, botanical gardens, and the media children are exposed to. We must also ask what kinds of worlds children are being directly exposed to through the policies of urban planning and child care in the broader sense, which greatly affect the natural history of children. Many of you are wondering, "This is all very well, but what about my daily practical task of teaching children about gardens or gardening?" Let me begin by asking what the reasons are for having children in a gardening program.

I think the common reasons people have for involving children in gardening are these: to learn the skills of gardening; to understand biology or, more specifically, botany (including learning of plant names); to develop their aesthetic appreciation of the natural world; and to develop a caring concern for nature. I grew up on a flower nursery in England, and before lecturing to you today I gave a lot of

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thought to what it was I enjoyed as a child. From this reflection I would like to add a couple of additional reasons why gardening experiences *might* be valuable to children, both of which also make sense from what I have observed of other children. First, if handled appropriately, gardening offers an opportunity for children to discover the joy of working, of defining a task and carrying it out to completion and hence with satisfaction through their sense of competence. Secondly, gardening can offer the special joy of "participation" with natural forces (nature) in the creation of something beautiful and more magical than could be created alone. This latter reason, this feeling of participation, I feel, is at the core of the fostering of earth stewardship in children. A few years ago I was invited to attend a conference of children from all over the world organized by the Assisi Nature Council. I was primed to be quite critical of the grand finale of this conference, which was to involve 500 children in a walk up Mount Subasi in Assisi to plant trees on a deforested slope. I could not see how such a large demonstration organized by adults with children in tow, who inevitably would spend most of their time waiting in line, was going to be an important experience. I was wrong. After they had planted their individual trees, I crouched down with a group of girls who had rarely left their working-class neighborhood of Glasgow, Scotland. They worked hard to stem the flow of their tears as they worried about who would care for the trees they had planted after they left Italy. Only after a heartfelt promise from me to return to Mount Subasi to check on "their" trees were they comforted.

One of the most difficult problems, I think, for gardening programs is the question of how to establish a program which recognizes that children learn best when they are inspired to initiate change themselves and at a time when they feel ready to initiate such change. As you all know, providing garden pots for a class of children will inevitably work for only a few. The discipline of gardening can only come after a desire has been kindled in children. Gertrude Jekyll, in her well-known book on children and gardens

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(1908/1985), faced this issue and concluded that children should be given an already-finished, beautiful garden. This might have worked for these highly privileged Victorian girls, but I think for the majority of children a diversity of opportunities is the key. Some combination of allowing children to be an observer and apprentice of others while also having a free space to experiment with gardening if they wish is probably ideal. The notion that young children only learn from direct manipulation of the environment comes from an overworking of the theory of Piaget. Observation and imitation are also important to children. For this reason, simply making greenhouses visually accessible on a daily basis for young children to see seedlings developing into beautiful plants (which may be managed by older children) might be for many children as valuable an opportunity as the chance to handle seedlings themselves.

I feel that another difficult issue for those of you in gardening education is the issue of wildness. If you reflect back on some of the best memories of your own childhood, you are likely to say that many of them are of relatively wild spaces, not gardens. Certainly this is what research on the subject has shown (Clay, 1969; Cobb, 1977). The areas of our flower nursery which my father was most ashamed of and hid from the public were the areas I and my friends wanted to be in as children: the garbage area behind the greenhouses, under the plant benches, in the toolshed and the boiler rooms. Similarly, the garden on our street which was so badly tended that the local government which owned the houses threatened to throw the tenants out, was the garden which the children on our street most wanted to use—it was wild! Why then do we expose children to gardening in rectangular plots, planting in straight lines, with an emphasis on classification and scientific knowledge?

I would like to suggest further that the profession of gardening education has not only uncritically accepted the importance of children being actively involved in planting as the key educational strategy, but by doing so they may actually be contributing to an old-fashioned notion of what should be a responsible mode for human intervention in nature. Maybe children should be first allowed to more fully experience the plant world and learn to look at it closely before being taught to erase all existing vegetation in order to engage

in monoculture on a billiard-table surface of soil. The sustainable development of the environment implies a different kind of gardening. Children need to learn how to modify habitats so that food resources and beauty are created while also at least maintaining, if not improving, these habitats for other living things. In a stewardship gardening program, wild spaces would be studied for their potential for sustainable development for humans and their value as wildlife refuges for other living things. Mapping, drawing, soil testing, determination of micro-climates, and the history of land use would all be activities of children before they were ever asked to dig. Foraging for food in wild places is a natural preface to gardening for those who wish to foster stewardship. This could also be an extremely enticing way for many children to develop an interest in gardening because children seem to place a great premium on things that are "found."

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Recognition of the value of wild areas to children's spontaneous learning about the plant world, in contrast to their education about it, should lead us to look critically at the changing nature of our landscape in this country. Wild common lands should be made available to children in all residential areas at a very local level. Here is an opportunity for the formation of local alliances between urban wildlife conservationists, gardeners, recreation professionals, and educators to manage them with children in local land trusts. To me, this is the kind of new institutional structure which makes sense if the society is serious about fostering earth stewardship as a crucial issue for society as it enters the 21st century.

Spontaneous contact with nature alone is not enough. Children want to have meaningful work, not just play, and they ideally want it *with* adults. They want to learn through engaging in meaningful acts which exercise their competence. Unfortunately, there is a great tendency of institutions to create special places for the little people instead of finding ways for them to work alongside big people. Froebel coined the term *kindergarten* or "children's garden" to refer to protected spaces for very young children. For, as with plants, perhaps there is a value of gardens

or "nurseries" at an early age for children's protection. But to be kept in a variety of nurseries until they are about 18 years of age is not in my mind an intelligent way to support the development of a competent and caring future generation of earth stewards.

What are some of the implications of this notion of the greater participation of children in the adult world? First of all, let's look at home gardens. Even if children are allowed to take their own space to create a garden in their home, I would recommend that parents work to share their planning, designing, and building of the whole garden to the maximum degree possible with their children. Similarly with school, what a wasted opportunity it is for the environmental education of children to isolate them in a small area called a "children's garden." Clearly the total landscape, including the siting of the school building and its energy use, should be the subject of investigation by the children. On the school grounds, wildlife conservation should be every bit as important as gardening in the continuum of possibilities of human intervention in the environment. As for the gardening program in the school, there should be at least three ways of learning gardening: (1) observation of gardeners, (2) apprenticeships in which children engage in gardening *with* gardeners, and (3) experimentation whereby children develop their own gardens. These three kinds of opportunities have implications for three kinds of designs: (1) a good working demonstration garden with a visually accessible greenhouse, (2) accessibility and tools to enable children to work on the entire landscape surrounding the school, and (3) free plots, that is, small gardens of shapes designed by children in groups or as individuals.

The notion of greater participation of children with adults has implications for botanical gardens too. At the moment, botanical gardens are organized into "no-go" and "all-go" areas. In an alternative kind of botanical garden, children would be allowed to work with gardeners all over the garden, carrying tools, mixing soil, learning to splice and vine plants, etc. There would be master craftpersons serving as role models of earth stewardship for children.

Community gardens probably offer the greatest opportunity for the fostering of earth stewardship in children. It is after all at the local or

community level where solutions need to be found for the more appropriate management of the landscape. By beginning with land in their own community, children could work closely with adults to transform land into areas of local production and beauty as a way of building community at the same time as they create a better balance between the human and non-human environment. Because such opportunities at this time are all too rare, schools must carry most of the responsibility for developing opportunities like this at the community level.

In summary, I have tried to suggest for a variety of reasons that we need to look afresh at our gardening programs for children. If our goal is to truly foster the development of earth stewardship in all children, we need to identify and build upon their spontaneous interests in the natural world and only gradually engage in the dramatic intervention implied by the word "gardening." The total landscape should be the concern of our programs, whether it be around children's ecosystems, home, their school, or the community at large. Immersion in these ecosystems, followed by evaluation of them, should be the preparatory phase for any intervention. Wildlife gardens, created with children, may have some special motivational value because they build upon children's spontaneous interests. They enable us to foster a different kind of relationship with the natural world than do traditional gardens: not one of manipulation and control but one of sensitive participation, which I have called in this essay "stewardship."

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