## "When we find meaning in art, our thinking is most in sync with nature"

## A review of An Ecology of Mind

When we reflect on how environmental education can be innovated to meet the needs and challenges of today's world, and if we also consider the role that the arts can play in this, we are well-advised to take a closer look at the groundbreaking work of the great thinker Gregory Bateson. The year 2010 saw the release of a highly interesting documentary on his work, entitled *An Ecology of Mind*. Completed more than thirty years after his death, filmmaker Nora Bateson (Gregory Bateson's youngest daughter) directed a compelling hour-long introduction to the world of this thinking. Gregory Bateson was one of the most original thinkers of the late twentieth century. His research covered a vast array of different fields: anthropology, biology, psychology, and philosophy of science. He would often move himself across the boundaries of disciplines, and do so in highly innovative ways. Until now his work has been largely inaccessible to those outside of the academic community. With *An Ecology of Mind*, this is soon bound to change.

Bateson was quite different from most other university teachers. In the 1970's he recounted how there was, almost every year, a vague complaint about his teaching. It was alleged that "Bateson knows something which he does not tell you," or "There's something behind what Bateson says, but he never says what it is." As a teacher at the University of California, he would encourage his surprised students to read extensively in *Alice in Wonderland*. Lewis Carroll's metaphoric language, he believed, would help them understand something of the human condition and the fundamental processes in evolution.



Nora and Gregory Bateson

Nora Bateson is Gregory Bateson's youngest daughter, from his third marriage. For me, watching her film portrait of her father was an overwhelming experience. I had the strange sensation of seeing and listening to a person on film whose work I excitedly started to read decades ago. At the opening of the film Ms. Bateson says, "I am inviting you to do the thing he did best, which is to look at a thing - be it an earthworm, a number sequence, a tree, a formal definition of addiction, anything at all from another angle." Her father would twist things around endlessly to be sure he didn't get stuck down a singular line of thinking. He would ask himself questions like: "What is the pattern that connects the crab to the lobster and the primrose to the orchid, and all of them to me, and me to you?" To learn about this pattern was his life's purpose. His approach was radically different from conventional science, which is often more preoccupied with taking things apart. Bateson was a voice crying in the wilderness. "Why do our schools teach us nothing about the pattern which connects?" he asked in despair. There was another side to this, and a cause for great concern. "Break the pattern which connects," he stated, "and you necessarily destroy all quality."

In the film, Mary Catherine Bateson, the daughter of Gregory Bateson and his first wife Margaret Mead, relates that her father was thoroughly preoccupied with the question why humans frequently behave in ways that are destructive of natural ecological systems. What is it about our way of perceiving that makes us not see the delicate interdependencies in the ecological system, that give it its integrity? As Mary Catherine Bateson observes, "We don't see them, and *therefore* we break them."

Gregory Bateson was completely comfortable going up and down the ladder of abstraction, zooming in and zooming out, moving from small to big, and back to small again:

> "I have always thought that way: that the relation between me and that book, or the book and the table, is still a microcosm of the relation between man and God, or God and the devil, or what have you. That the big relations and the small relations are all the same thing! For study's purposes, you have to work with small ones, sometimes. And then people blame you for working with small ones. Then you start working with big ones and they blame you for being a mystic. It's all the same business."

Bateson coined the term metalogue. A metalogue is kind of conversation about some problematic subject whereby the dialogue is such that the participants not only discuss the problem at hand, but the structure of the conversation as a whole is also relevant to the same subject. That layered quality of metalogue is also apparent in *An Ecology of Mind*: next to the subject matters that are taken up a lot is also conveyed through the way of editing, through Nora Bateson's explanations and elaborations that are woven like a red thread through the film, and last but not least through bearing witness to Gregory Bateson's body language, his sparkling eyes, his curiosity towards life, his interaction with children. His way of conveying the information, like when he temporarily withholds his punch line, or when he anticipates (and waits for) the response of

the audience, is fascinating to watch. He *lived* the "stuff" (as he would often call it himself) that he was talking about. At first, one may erroneously take Bateson's bold statements as tongue-in-cheek explanations: points of view that are not to be taken seriously or that are ironically intended. In reality however, it is quite the contrary: with his sense of humor and understatement, Bateson could be completely serious. As a matter of fact, the domain of humor was seen by him – along with dreams, art, and poetry – as a necessary correction to a too one-sided focus on logical thinking and purposiveness.



Image from the film An Ecology of Mind

In *An Ecology of Mind*, several people who have known Bateson well, like Fritjof Capra, Steward Brand and the governor of California Jerry Brown, share how they have been inspired by his thoughts, adding to a better understanding of who this man was. But perhaps Nora Bateson's biggest achievement is that she is able to explain abstract and (at least at firstsight) rather inaccessible concepts in a clear way, without simplifying them.

The imagery in-between the speaking people is special in its own right. Some parts are animated; at the start of a new theme, we see the silhouettes of a man and a child walking forth, passing signposts with words like "double bind" and "epistemology." We see stock footage – slightly de-colored 16 mm films and sometimes even blurry video recordings – from the 1970s as well as poetic images that are shot in our time. These images are subtle and well-chosen; what is more, they don't distract you from listening carefully to the spoken words, which require one's full concentration.

A recurring theme in the film is Bateson's focus on the relationships between things and the importance of context. Bateson holds that we live in a world that is *only* made of relationships. And without context, our words and actions have no meaning. Though this may seem as self-evident, when practiced thoroughly it may lead to a dramatic and surprising shift of focus, as comes across compellingly in his following statement.

> "You have probably been taught that you have five fingers. That is, on the whole, incorrect. It is the way language subdivides things into things. Probably the biological truth is that in the growth of this thing – in your embryology, which you scarcely remember – what was important was not five, but *four* relations between pairs of fingers."

A key quote of Bateson in the film, which has surfaced also in several other contexts, is that "the major problems in the world are the result of the difference between how nature works and the way people think." We have been trained to think in ways we hardly notice. This point is made perfectly clear in a lively presentation where we see Gregory Bateson in front of a blackboard with a piece of chalk. On the board he draws a boot-like shape and he asks his audience how one would best describe that drawing to another person. Scientists commonly would try to break it into parts.

> "They will say: 'Well, it's a hexagon,' but it isn't a hexagon, and a rectangle which isn't a rectangle. By describing what it *nearly* is but isn't quite, they get a sort of description out. The division into parts is of course purely arbitrary. They could have sliced it anyway they wanted."

After we have seen her father say this with a triumphant smile in front of the blackboard,

Nora Bateson comments: "He illustrates for us the arbitrariness of the kind of separations that are created by defining things. So that when we define something as separate from something else, we create limits to our ability to see the interrelationships and the dynamics of those interrelationships."

How do we then go about *defining* these relationships between things? Here Bateson focused on their contrast, or on what he called, somewhat quizzically, *"the difference that makes a difference."* In the film Terence Deacon describes how this tool leads us to look at things in a different way:

> "Instead of looking at the substance of it, looking at the parts and saying: "What made this part, what made that part? And where did the design plan come from that makes those parts work together?", one sees in the pattern of their similarities and differences a whole separate kind of patterning process, and I think that was characteristic of his way of looking through the surface to some deeper dimension."

Nora Bateson admits that her father's thought process can take a moment to become accustomed to: "Your eyes have to adjust to the alignment he maintained in which the context of the natural world is pulled outward, so that its inhabitants, including creatures, oceans, forests and urban infrastructures are like musicians in a jazz group, improvising together." As a child, she learned from him that "learning never stops." As said before, her father was often accused of talking in riddles and never coming to the point. According to his youngest daughter the question he posed ("What is the pattern that connects?") was in fact never *meant* to be answered, because the patterns are constantly changing: "It was the act of questioning that he was pushing for."



Gregory Bateson

At certain moments in the film Nora Bateson addresses her viewers directly. With a soft voice and looking straight into the camera, she carefully explains her father's idiosyncratic notion of "mind" – again using vivid language and imagery from the natural world to illustrate her point: "Ideas are adjusting to each other, to stimuli from the outside and to infinite other messages. Gregory's concept of mind was that it was much more than the brain in your head: it is the tree root that grows around a rock, or the way that river otters play."

At another point she quotes her father saying: "If I am right, the whole of our thinking about what we are, and what other people are, has to be restructured." For Gregory Bateson, the pathology of wrong thinking in the modern world can in the end only be corrected by the discovery of the relationships which make up the beauty of nature. Here he is inspired by the philosopher-poet-naturalist Johann Wolfgang von Goethe. From the latter Bateson takes up insights like that the stem of a plant is defined "by having leafs which have stems in its angles." For him, that stuff "is really very rightbrainish sort of stuff," which he enjoys tremendously as he goes for a walk in nature. This joy, in its core, is an aesthetic joy, as Mary Catherine Bateson explains: "Any kind of aesthetic response is a response to relationships. (...) The experience that you take from the reading of a poem or looking at a painting is an unconscious exploration of the many different relationships that the artist has managed to capture."

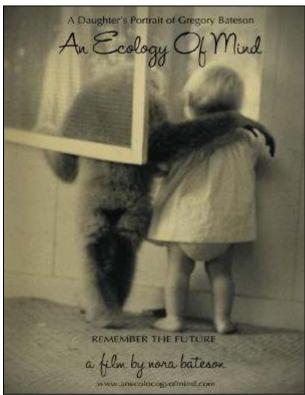
Towards the end of the film, Gregory Bateson comes back to his fascination with the human hand and the relationships ("and relations *between* relations and relations *between* relations between relations") it encompasses:

> "One of the interesting things that happen if you look at your hand and you consider it – not as a number of bananas on the end of some sort of flexible stick but as a nest of relations – is that you'll find that the object looks much prettier than you thought it looked. Now this means that with a correction of our epistemology, you might find the world was greatly more beautiful than you thought it was."

Bateson was very interested in art. He believed that the purposive, logical mind needed correction from dreams, art, and poetry. This is one of the reasons why the film *An Ecology of Mind* is highly valuable for people working on the interface between art education and nature education. In the words of filmmaker Nora Bateson:

> "Expression through the arts was considered by Gregory to be the most honest and pure form of human communication. It's easy to forget that when we find meaning in a story or enjoy the beauty of a piece of music, we are engaging in the realm of thinking that is most in sync with nature. Metaphor is the language of relationships, the language of natural systems, in which there is room to communicate in spectrums of possibility, instead of tightly defined cul-de-sacs."

The most profound insight for me came towards the end of the film. Ms. Bateson relates here how her father taught her that to be *really* complete, incompletion must be included in the system. The key here is the ability of "learning to learn." For Gregory Bateson, anything else is just static and finished, because it doesn't evolve. Yet even in death, relationships continue to grow: "I am *still* learning things from my father," Nora Bateson says as her last line in *An Ecology of Mind.* 



Film poster

Currently, Ms. Bateson is developing a curriculum to accompany the film, which will be centering on epistemology and systems thinking. I believe that both film and curriculum will be extremely valuable resources for people who want to reflect on the way we go about educating our children, who think about ways to reconnect them to nature, and who have an open eye for the importance of aesthetic sensibility in this. No small achievement for a film on such an eccentric, inimitable, at times difficult, but still much undervalued thinker.

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