

## **Nature and health**

Lecture given at the launching ceremony of Health UMB

Ås, September 8th 2006.

Per Fugelli

Sincere congratulations with the innovation Health UMB. It provides an opportunity for health to escape from the prison of medicine. Health UMB offers health a home where it belongs, in nature – in Schwarzwald, among the wild swines as the taxi driver in Stockholm stated some months ago. He was originally from rural Germany. Now it was morning rush, red lights in chain reaction, traffic jam, hooting, tooting, - suddenly he sighed from his boots: “Half of my life I have spent staring at red lights. This is stress, stress, stress. I should have been out in the woods together with the wild swines, looking at the sky. You can be evil and ill of this city life.”

Rousseau urged man to go back to nature. Freud proclaimed: “Das Mensch ist ein Tier.” So man has a basic instinct drawing life and health in direction nature.

Why?

Because man and nature are one. Man is pure nature. We are bones, muscles, organs, cells, molecules, electrons, kvarks, mesons. We are carbon, nitrogen, hydrogen, oxygen. So we are nature, we are ecological bodies as finally stated in the funerals service: From earth to earth.

But health is more than nature because man is more than body. Man is also spirit. Therefore health is molded by culture. And man is a social creature, therefore health is shaped by politics. I have formulated this understanding in an equation:

$$h = n \times c \times p^2$$

claiming that health is a product of nature and culture and politics squared, stating that health is wholeness.

The very word health, helse, originates from old Norwegian heill which means the whole. So health is interconnected with the whole life, the whole society, the whole nature.

My mission in this lecture is to dissect the nerves and vessels between nature and health. The exchange between nature and human health, between what Claude Bernard called milieu interieur and milieu exterieur, is intense. It may be salutogenic or pathogenic. Some keywords may open doors to the potential perils of nature:

#### Table 1

##### Pathogenic potentials in nature

- natural disasters (tsunamis, earthquakes, lightening)
- micro-organisms (avian influenza)
- climate (global warming, the ozone layer)
- food supply (mad cow disease)

- water resources (drought in Sahel)
- environmental pollution (dioxins)

Nature can destroy human health. Tennessee Williams states: “A vacuum is a hell of a lot better than some of the stuff that nature replaces it with.”

## PLOT AND STRUCTURE

In this lecture I choose to give light to the bright sides of nature. I will explore the vital question: How can nature contribute to human health?

My answer is inspired by poetry, research literature, personal experiences and empirical findings from two recent studies. Benedicte Ingstad and I had performed qualitative studies of the notion and experience of health among people in Norway and in Botswana (1,2). In the last study Robert Selato has participated as well. The Botswana study focuses on the San people who have lived as hunter-gatherers in the Kalahari desert for 30 000 years. They are now, partly by structural violence, removed from their natural habitat and live in impoverished settlements and as semislaves on farms. We have interviewed 56 San and 80 Norwegians. The Norwegian informants live in five different municipalities: north and south, coast and inland, urban and rural. I will use some reflections and statements from these field studies to spice this lecture.

## NATURE AS A CONTRIBUTOR TO HUMAN HEALTH

In science-dominated western mentality nature is often conceived as a conglomerate of elements, molecules, atoms. But nature is much more than biology, chemistry and physics. Nature is poetry, drama and seduction. Nature is not only a periodic system of elements but also a powerful system of signs, symbols and values (3). Nature dances with our souls. Nature sculptures culture. Nature rules politics.

As seen from table 2, I will try to understand nature's contribution to health in this broad bio- psycho- social perspective.

Table 2

Salutogenic potentials in nature

The molecules

Sense of belonging

Identity

Peace of mind

Natural beauty

God

Humility

Wisdom

Courage

Playground

Freedom

## The molecules

Embedded in nature is a huge reservoir of healing substances and principles. A lot of potent modern drugs against cancer, heart disease and infections stem from nature. But again, nature provides more than molecules:

## Sense of belonging

Nature provides man with an essential health requirement: Sense of belonging. Marcel Proust jokes with Shakespeare in his great novel *In search of lost time*. He states: “The question is not as for Hamlet to be or not to be, but to belong or not to belong.” Nature as a place where you belong, a landscape with a cultural heritage that you recognize as “yourself” is a vital health resource. Sense of belonging is close to Erikson’s basic trust (4), Antonovsky’s sense of coherence (5) and Giddens ontological security (6) – three basic prerequisites for health. Sense of belonging is also related to Appleton’s controversial hypothesis presented in his book *The experience of landscape* (7). Appleton claims that humans are genetically adapted to certain landscapes. We are born with pictures in mind of the nature/landscape we are best suited to master and feel secure in. This health value is appreciated in the Arctic ocean as well in the Kalahari desert. A Norwegian whale hunter returning from distant waters depicts his homecoming like this: “When you see those mountains, it is just like green velvet. The most beautiful you can come back to. And you know when you approach the island, it is a hell of rocks and hazards. But you are determined: In you shall, in any case. In you shall! Then it is so good to arrive home and when you have passed the rocks, you know: Here is peace”.

A San man in Kalahari has been removed from his original habitat. The government has promised him a better life in the new settlement: “That I won’t understand. It has been said that when an elephant crosses the river to the other side, it is no more a big elephant as it used to be, but now it is a small elephant. That means that our dignity has been left behind where we come from. Now, here, we are small elephants.”

For some, the sense of belonging transcends location and embraces nature in extenso, or even the universe. This feeling of I and nature being one, is the foundation of Arne Naess’ deep ecology as well as James Lovelock’s Gaia hypothesis (8,9).

### Identity

An experience of a recognizable self is a *conditio sine qua non* for good health. Nature may contribute to a proud and stable identity. Basso (10) describes from the Apache Indians how identity and history sits in places. He calls this “place making”, a transformation of landscape as nature into a social construction which gives identity.

In Norway the closeness between nature, home place and identity is reflected in our surnames. They are mostly composed of phenomena, structures and creatures in nature.

A young man in Kalahari constructs his self picture with elements from nature. Proudly with shining eyes, he tells: “I have killed an eland. Felt very

happy. I have killed a very big, famous antelope, from horseback, with spear”.

An amusing Norwegian example on attempted identity design is confided by a young mother: “I myself do not enjoy outdoor life, but my husband does. He loves being out in nature. So I try to put on all these clothes and have a good time outdoor. Yes, indeed I try. Gapahuker and ... No, then we sleep under open sky, and it is a lot of terrible things I have to participate in. Summertime it is okay, but not autumn and winter. Out, out and grill hot dogs! Such is our life. This I have to attend and it is not my greatest dream, no, but for the sake of the child, there is a lot I want her to experience out in nature. It means a lot for me, therefore I do it”.

### Peace of mind

The fourth essential drug offered by nature is a tranquilizer, the Norwegian valium called fred og ro. That does not mean standstill or braindeath. On the contrary the peace in nature may invite you on a mindwalk to the interior of yourself. This requires that you sometimes call on nature in solitude. Fridtjof Nansen in his speech Friluftsliv says (11): That is to me the greatest aspect of friluftsliv: To be able to get away from the crowd, away from the perpetual race, the confusing clamour in which we conduct our lives to far too great an extent – to get out into nature, into the open.”

Karen Blixen was once visited by a Dane, whose aim was to experience as much as possible of Kenya in two weeks (12). He got a native guide and started a frenetic tour. One day the Kenyan man suddenly sat down and refused to go on. The Dane tried to persuade him to continue. But the

African stated: I have to wait here, until my soul has caught up with me.” Nature is a refectory where haunted, modern man can recover equilibrium. A female world champion in cross country skiing says: “If you can imagine there is such a harmony inside you... . There is such harmony and connection. In a way you unify with the terrain. If more people could feel the same, it must be like it is peace in the whole world – total harmony, nothing that disrupts.”

### Natural beauty

“Can man get sick of the ugly?” an architect asked some time ago. Perhaps. We do know that man can get health from the beautiful. A man from the north suffered from advanced cancer in his mouth and throat. He had undergone surgery and hard cures with radiation and chemotherapy at the National Hospital in Oslo. He thought he would die when he discovered the swallows: “Yes, those swallows under the hospital roof. They were seventeen. I used to count them and watch them fly. So, I started to long for home.” He recovered gradually and was allowed to go home. Immediately he looks up nature: “When I was able to walk out there, on the islets, quite for myself and listen to what is really nice, then I flourished. I mean such things that your body needs: piece and calm for itself, both for thoughts and senses. If it was only the wind and clouds, it was fine music.”

### God

The word nature derives from latin natura which means: What is being born. For many people nature represents The Creation. Nature brings them close to God. Nature becomes supra natural. A young Norwegian Olympic athlete

in winter sports states: “Who I believe is The Creator, I meet out in nature. There is Power out there. Not like God, an old man with a beard, but I believe there is a Force in nature and I get energy from nature. I do. Enormously. The mountain is absolute raw.”

Ten thousand kilometers away the San have their holy mountain Tsodilo Hill, a UNICEF world heritage. For thousands of years San people have engraved their beliefs, dreads and dreams on the mountain. In local San language the name of Tsodilo Hill is NXUM, which means soul, life, potency, vital power.

### Humility/moderation

According to Aristotle man has to strive for four virtues to approach health and happiness: moderation, wisdom, courage and justice. The three first cardinal virtues nature can contribute to, - justice not.

“I, not science, not medicine, not even Health UMB is the ruler of life and death,” says nature to haughty man. “There are more things in heaven and earth, Horatio, than are dreamt of in your philosophy,” proclaims Hamlet. “I am these more things,” declare nature. Nature is mighty, dangerous, mysterious, beyond scientific comprehension, beyond human control. Befriending nature can help us realize how small, vulnerable and mortal we are. In order to obtain health and peace of mind we have to surrender and accept nature’s superiority. Terrible, unpredictable, uncontrollable things do happen in life, in society, in nature. “You must learn to live good with that reality,” commands nature. Humility and modesty in expectations, prescribes

Doctor nature, in opposition to Doctor medicine who prescribes the zero vision (13): You shall strive for 0 risk, 0 pain, 0 disease, 0 death. Nature demands respect for life as mixed state. The natural body is not a clone of superman. The natural soul is not a clone of the arch angel. Nature advises us to accept ourselves as creations of imperfection with stains, sins, fat cells, fragile wills and even a cigarette or two.

### Wisdom

The San Genesis represents an admirable example of man's humility towards nature. According to the San, in the beginning, all creatures on earth were humans. From this original, primitive mass of men some started to specialize and evolved into animals. Some refined their muscles and became antelopes. Some improved man's eye and became eagles. Some increased man's courage and became lions. So as Darwin appoints man as the final jewel of evolution, the San places man at the very beginning as a primitive stem cell. Imagine what this inversion of Darwin's The origin of species (14) does with man's relation to nature and respect for other creatures.

Man can achieve wisdom by reading The Book of Nature. The logics, the ingenuity of design, the conundrums of nature is an eternal growth factor for the human brain.

### Courage

Nature is a training ground for the third Aristotelian health virtue: courage. To feel alive, to be healthy man need to challenge himself, push limits, confront dangers. Nature represents The good enemy, a sparring partner for man who wants to increase in bodily strength, in sharpness of senses, in

speed of reaction, in will power, in endurance and in courage. An old River San in the Okavango delta in Botswana reported how he as a young man killed hippos with spear from mokorro (hollow tree canoe). That was not only for food, but as much for the existential urge to refine and test your extreme capacities.

One of the major health threats of modern times is the hysterical avoidance of risk. To confront “hippos” is mandatory to human growth and survival. Frank Furedi, the author of *Culture of fear* (15), reports a memory from childhood. He is nine years old and lives in Budapest. Every Sunday he and his family wander in a nearby forest. Every now and then his father stops and says: “Frank, there is a good risk, go and take it.” This is still a good advice.

### Playground

According to Max Weber (16) modern man has imprisoned himself in the iron cage of rationality. Our lives are colonized by effectiveness, cost-benefit analysis, long term planning, seriousness, cleverness. We are high achievers in a world of Das Schema and The Duty. Nature calls: “Come and play in me, with me. Fish a salmon in me, hunt a deer in me, walk a mountain in me, take a bath in me, play hide and seek with your grandchildren in me.” “Come,” lures nature, “here is joie de vivre.” Nature sings the song of relaxation: *Que sera sera*, whatever will be, will be, the future is not ours to see. Nature is recreation also in the meaning restoring man’s creativity. Many among us will recognize Søren Kierkegaard’s experience: I walk myself to my best thoughts.

## Freedom

The ultimate vitamin nature supplies man with, is freedom. A group of San was removed from their free lives in Central Kalahari Game Reserve and placed, supposedly by force, in a new governmental settlement. An old man describes the claustrophobic feeling among the relocated San: “Here they are just in a squeezed, tight place. They are in a place which is very small. They are not free to go around, like what it used to be in central Kalahari. They feel like they are in a prison camp.” Another informant standing nearby, confirms this aspect of lost freedom, the deep feeling of being restrained and controlled: “They say it affects them just like they are in hand cuffs, as she demonstrates (another bystander wearing great bracelets brings her arms strongly together and pretends trying to brake lose from the illusory handcuffs with all her powers, but in vain). It is as if you have tied a donkey around its front legs in order to control its movements. So how will they survive in such a situation?”

For the relocated San the feeling of imprisonment is a harsh reality. They see only one escape route: back to nature. In metaphorical terms the San and modern urbanized man share destiny, frustration, and hopes. Modern man may feel locked up in abstract systems, handcuffed by bureaucracies, restrained by urban architecture, chained by debt and parkometers, invaded by the media, tied up by the internet. Then, as for the San, we long for freedom in nature, in what we call Guds frie natur.

## THE END

I have now demonstrated the health potentials in nature. Nature's health promoting values are more needed than ever. Globally we experience an accelerating urbanization (17). Megapolitan lifestyle offers health delights. But at the same time the urbanization imposes great stress to human life. Nature may counteract the hazards of urbanization, as demonstrated in this table of health contrasts.

Table 3

Urban pathogenesis versus nature's salutogenesis

Health strains of urban life	Health potentials of nature
Iron cage of rationality	Playground
Noise	Silence
Action	Reflection
Body atrophy	Physical activity
Fragmentation	Wholeness
Alienation	Sense of coherence

Now, finally let us return to the Equation of health:

$$h = n \times c \times p^2$$

I have tried in this lecture to bring evidence for factor n, nature's contribution to human health. Let there be no doubt, nature is a powerful remedy in health promotion, therapy and rehabilitation.

But then, allow me a final warning: We must not devalue nature to a health remedy. Medicalization is a big concern world wide (18,19). More and more of life's own trouble and variation are transformed to diagnosis. More and more of cultural and spiritual activities are transformed to therapy. "Is religion good for your health?" is the title of a book recently published in The United States (20). Art, paintings, music, poems are examined with respect to effect on blood pressure and adrenaline excretion. Habermas (21) warns us against imperialistic professions colonizing people's life world. We must not colonize nature with a utilitarian health ideology. I believe that nature's health potential is dependent on a naïve relationship between man and nature. I hope Health UMB will not try to make a medical park of the Norwegian jungle. Instead of making a pill of nature, we should concentrate on factor p in the health equation: Promote politics that preserve nature and makes nature and thereby health available to all.

## LITTERATUR

1. Fugelli P, Ingstad B. Helse og natur i Norge og Kalahari. I: Grimen H, Ingstad B, red. Kulturelle perspektiver på helse og sykdom. Oslo: Universitetsforlaget, 2006: 18-33.
2. Ingstad B, Fugelli P. "Our health was better in the time of Queen Elizabeth": The importance of land to the health perception of the Botswana San. *Senri Ethnological Studies* 2006. In press.
3. Witozek N. Norske naturmytologier: Fra Edda til økofilosofi. Oslo: Pax forlag, 1998.

4. Erikson HE. *Childhood and society*. New York: WW. Norton & Company, 1950.
5. Antonovsky A. *Health, stress and coping*. San Fransisco: Jossey-Bass, 1979.
6. Giddens A. *Modernity and Self-identity. Self and society in late modern age*. Cambridge: Polity Press, 1991.
7. Appleton J. *The experience of landscape*. Chichester: Wiley, 1996.
8. Næss A. *Deep ecology of wisdom*. In: Glasser H, Drengson A, eds. *The selected works of Arne Naess. Volume X*. Dordrecht: Springer, 2005.
9. Lovelock J. *Gaia: a new look at life on earth*. Oxford: Oxford University Press, 2000.
10. Basso KH. *Wisdom sits in places*. Albuquerque, NM: University of New Mexico Press, 1996.
11. Nansen F. *Friluftsliv*. In: Dahle B, ed. *Nature: the true home of culture*. Oslo: Norges idrettshøyskole, 1994: 6-7.
12. Fogt A. *Eventyret som aldri tar slutt. Natur, helse og livsglede*. Oslo: Akribe, 2000.
- 13 Fugelli P. *The Zero vision: potential side effects of communicating health perfection and zero risk*. *Patient Educ Couns* 2005; 60: 267-71.
14. Darwin C. *The origin of species: by means of natural selection*. Twickenham: Senate, 1998.
15. Furedi F. *Culture of fear*. London: Cassell, 1998.
16. Weber M. *Makt og byråkrati*. Oslo: Gyldendal, 1971.
17. Tellnes G, ed. *Urbanisation and health. New challenges in health promotion and prevention*. Oslo: Unipub forlag, 2005.
18. Moynihan R, Cassels A. *Selling sickness. How drug companies are turning us all into patients*. Crows Nest: Allen & Unwin, 2005.

19. Skrabanek P. The death of humane medicine and the rise of coercive healthism. Bury St. Edmunds: Crowley Esmonde, 1994.
- 20 Koenig HG. Is religion good for your health? The effects of religion on physical and mental health. New York: Haworth Pastoral Press, 1997.
21. Habermas J. The philosophical discourse of modernity. Cambridge: Polity Press, 1987.