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Ecotherapy: a therapeutic and educative model

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The relationship between man and nature

Humans' need for nature is linked not just to the material exploitation of the environment but also to the influence of the natural world on our emotional, cognitive, aesthetic, and spiritual development. This statement is based on the "Biophilia Hypothesis" (Wilson 1984) which suggests that human identity and personal fulfilment depend on our relationship with nature. The hypothesis asserts the existence of a fundamental, genetically based human need and propensity to affiliate with other non human living organisms. Biophilia means: love of life. For Fromm (1973) biophilia is the essence of humanitarian ethics, which is the central theme of all his books. He believed that a productive, creative, caring attitude toward life is fundamental to our own mental health and for humankind as a whole, if it is to survive.

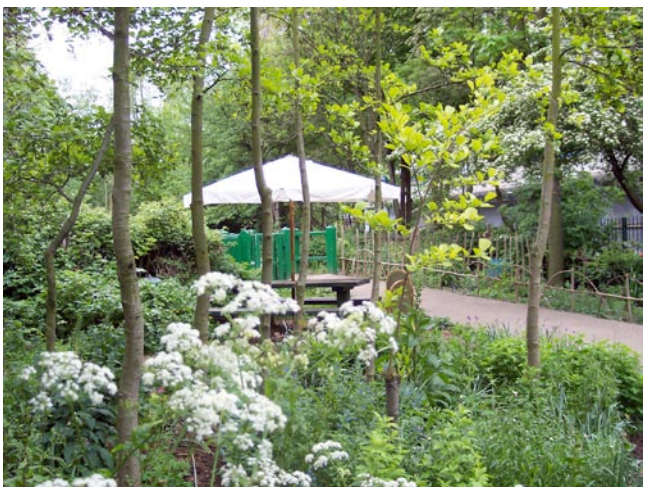

Figure 1 – Meanwhile Wildlife Garden, London, UK.

Wilson (1992) points out that people crowd national parks to experience natural landscapes, and ''travel long distances to stroll along the seashore, for reasons they can't put into words'' (p. 350). According to Wilson (1984), the biophilic instinct emerges, often unconsciously, in our cognition, emotions, art, and ethics, and unfolds "in the predictable fantasies and responses of individuals from early childhood onward. It cascades into repetitive patterns of culture across most or all societies'' (p. 85). The hypothesis is therefore particularly important as it provides a framework by which new multidisciplinary scientific bases can be mapped towards a greater understanding of the human relationship with nature. Wilson (2002) calls the age we are in the: "Arimozoic Age". A future without biodiversity would be an age of loneliness because Wilson believes that:

> *"We would have a tremendous psychological deficit if we got rid of most of (biodiversity). We would enter - ... after the Mesozoic, the age of reptiles, and the one we're in, the Cenozoic, the age of mammals - ..... the Arimozoic, which means the age of loneliness. And we'd never get it (biodiversity) back, and we'd really have missed something that should be thought of as part of humanity - that is, our relationship with the rest of life, in all its diversity."*

Figure 2 – The human nest (Meanwhile Wildlife Garden, London, UK).

In the spirit of this assertion, an ecotherapeutic project in London (Mind Meanwhile Wildlife Garden, Burls & Neonato 2005, Burls 2007) set about constructing a 'human nest', created by the participants to point out that man belongs in nature, which is his home.

Richard Louv (2005) reports on the fact that children are more and more removed from having contact with nature, mainly due to the perceived dangers that reside in outdoor environments and thus parents and guardians will encourage children not to interact with nature. This he calls the "nature deficit disorder". The built environment in towns and cities becomes evermore devoid of nature as it is almost shut out behind walls and roads. But there is evidence that children who experience Attention Deficit Disorders are growing in numbers and that their behaviour problems improve when they are allowed to be in natural environments, exploring and doing, being active and absorbed by the surrounding living environment (Ferrini 2003). Their engagement is guided by the living and restorative elements of plants, trees, animals, weather and ever changing surroundings. The attention restoration theory of Kaplan & Kaplan (1989) supports these outcomes.

In today's industrialised society nature is often something which children are more likely to see on their television and it is likely that they may know more about the plight of the Rain Forest and the world's ecological crisis than to realise that they have not seen nor know their local wildlife and are not aware of local ecological problems. Capanna (2006) reports how a child asked to draw a chicken, drew a roast chicken on a plate as he only had this particular experience of seeing this animal. The exposure children have to nature could come from simple things such as a walk to school and back home, however parents with little time on their hands to walk with them, will drive them to school. The problem is also aggravated by the feelings of danger from strangers and the fears fuelled by the media.

So the number of children walking to school today has drastically decreased. We also have experienced an increase in the time spent in front of the television for children and adults. Today it is estimated that we spend an average of 4 hours per day watching television. The sedentary lives that most children now lead, is provoking the vast amounts of obesity reported in so many medical statistics, with the ensuing long-term health problems. There is therefore a sort of 'extinction of experience' (Norris 2004) for children in particular, echoing Louv's (2005) idea of 'nature deficit'.

Although we believe that our evolutionary development has changed us, based on the technology and advancements we have made, our genetic makeup has not changed and in fact there is only an insignificant genetic change of 0,005% in the last 10.000 years (Williams and Nesse 1991). Therefore we are still 'constructed' to cohabit with nature, with the opportunity to be creative and use our instinct in order to survive. Instead our lives are mostly static, surrounded by boundaries which we perceive to protect us from outside dangers. Nature is perceived as irrelevant and for some children a source of fear in itself.

Our modern living has been compared to the world of domesticated animals. They became domesticated by humans in order to serve their needs; in doing so animals became less likely to need to hunt for food and their life gradually became easier, with protection from predators and ready food supply. However, this evolutionary change led the domesticated animals to loose their innate freedom and, with it, their complex natural interactions with the rest of the natural world. Man has created a similar situation for himself and has become detached from his natural ecosystem. A child interviewed by The Guardian newspaper, described himself as a 'battery child': one who, like chickens, only makes very short journeys… from television to school and back again.

Our 'modern' behaviours give rise to a series of conflicts between our innate need to relate with nature as our ecosystem and our disconnection from it. This detachment often gives rise to dissociative behaviour problems. We become unhappy, alienated and develop physical and psychological problems. We develop dependences to material goods for our happiness and eat superfluous, unhealthy food, which increase our likelihood of illness. Our way of associating with nature has become artificial. We observe it in films; we recreate it in pictures and fabrics. We recreate theme parks to give us the impression of nature, when, in fact, all we need do is go for a walk in our local park or create a garden. Contrary to other sedentary activities like watching television, it would be a positive move to educate people to the fact that nature amplifies our time rather than steel it (Louv 2005).

There is extensive research which consistently suggests that children prefer to play in natural and even

wild environments. Such environments provide them with stimulating activities which counteract boredom and foster creativity and the use of children's innate curiosity is satisfied through experiential learning (More & Wong 1997). These findings are not correlated to nationality, nor social class and support the observation of lower aggression and higher use of imagination when in contact with nature than in urban surroundings. Diamond (1997) actually asserted that children in the so called 'developed' world are probably less intelligent than those which have to use their creativity to survive from day to day in the 'developing' world.

In finding both stimulation and solace in nature, children's learning and behaviour is improved. They can resolve internal conflicts, fear and develop higher levels of non verbal communication, self-esteem, autonomy and independence (Winnicot 1971, Kellert & Derr 1998, Berger 2004).

The eco-educative model

Eco-education, described as a whole-person growth process, helps persons whose reconnection with nature (or 'eco-bonding') will eventually develop and outweigh or replace the alienation which is highlighted by Wilson (or 'eco-alienation').

The ecological dimension of education (and therapy) becomes the focus for growth and healing. This is a focus which is important and often neglected. This dimension should be integrated in appropriate ways within the multifaceted dimensions of holistic education and therapy.

The model uses a strong component of experiential learning in its four essential steps of:

- Experiencing challenges (by choice)
- Reflecting on the activities and the associated metaphors
- Processing by sharing thoughts and reflections
- Applying the learning from the natural world to the personal everyday world…

These will usually foster the development of new personal pathways to social inclusion and self efficacy and toward a kind of 'taking flight' in their world and applying newfound skills towards employability.

Ecotherapy usually includes the use of what Howard Clinebell (1996) has called 'educative counseling'. A strong component of this model is active participation in nurturing the surrounding environment through a process of experiential learning. The two most prominent elements of which are centred around *Reflection* and the *Reciprocity.* These support the active two-way nurturing of man and nature.

Reflection is the most powerful tool with which a person can cogitate on internalized norms and values with the aim to find new and more suitable structures

Figure 3 – A new path (Meanwhile Wildlife Garden, London, UK).

Figure 4 – Reflection (Meanwhile Wildlife Garden, London, UK).

for his or her life, recognise destructive and dysfunctional behaviours or emotions, as well as helpful and effective ones, understand their effects and take control of their experiences.

Reciprocity is embodied in nurturing our ecosystem, which is our home, and preventing its degradation; this encourages people to develop ecologically sensitive life styles. These activities of taking care of our ecosystem, are not only about developing a synergy between man and nature, but they are also a matter of self-preservation: caring for ourselves and those we care for and their future. This is the basis of sustainability.

Ecotherapy and eco-education utilise a variety of interventions designed to facilitate healing and growth in the three interdependent dimensions of *body-mind-spirit*. The model utilises contemporary insights and methods which encompass the ecological perspective within them. This ***three-way holistic model*** enables the educator/therapist to integrate the multiple needs of people, using resources from ***participants*** themselves, the ***educator/therapist*** and ***nature*** as co-educator. This three way relationship espouses the philosophy of the interdependent healing and growth of human and environment.

Figure 5 – Meanwhile Wildlife Garden, London, UK.

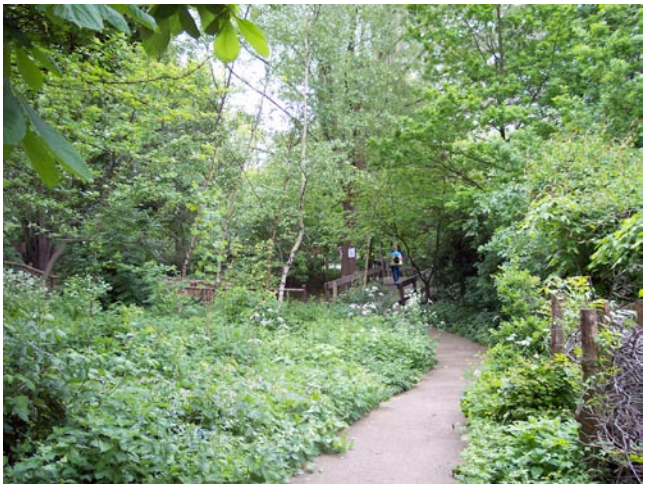

Figure 6 – Meanwhile Wildlife Garden, London, UK.

The specific elements of the model are designed to enable people to enhance the *self* through three experiential dimensions (Clinebell 1996):

- develop openness towards being more fully, intentionally, and regularly supported by nature, in a caring and respectful interaction.
- enable people to become more cognitively aware of their place in nature and of the wider meanings, self-transcending or spiritual dimension in their experiences of nature.
- motivate people to learn how to adopt more ecologically caring lifestyles and behaviors and to participate in actions that will help save their ecosystem and biosphere.

For children the Nature-Play (or Plant-Play) (Green 1994) model can follow similar experiential guidelines through growing plants. The premise is that man, like plants and animals, live and flourish, when they can satisfy their own needs. In nurturing a plant as an example children will learn that plants have properties which help them survive through specific stages. There are specific functions of growth during plants' life; they can change some of their physiognomy to live better and they adapt to seasonal changes in order to continue to grow. Whilst following the growth of a plant from seed to flower, nature helps the child by example and the child learns to adapt to practical living, to apply new learning and accept routine. This process helps the emotive and psychological growth, based on human experience which prepares the child for the exploration of life in the future.

The eco-educative (and therapeutic) activities

There are many activities which can be considered appropriate for the development of health and education through contact with nature.

Figure 7 – Meanwhile Wildlife Garden, London, UK.

They include:

- Restoration of green urban areas for civic use and community development
- Conservation work for the sustainable preservation of native flora and fauna
- Ongoing work in botanic gardens and valorisation of wild plants and particular crops, edible and medicinal plants, which may advantage ethnic communities and people with special needs.
- Educational activities which equip people to recognise and know the habitat required by plants and wild animals/insects in their local community or countryside and develop botanical and conservation know-how.
- Assessment and documentation of species in woods, parks, and wild areas aimed at cataloguing and identifying native or endemic flora and fauna, contributing to scientific research and repopulation projects.
- Work in wild animal rescue and rehabilitation centres
- Assessment of the needs for protection and habitat regeneration of local wildlife (i.e. construction

of nest boxes, provision of food, specific habitat development)
- Create artefacts which increase the aesthetic and sustainable value of local wildlife-supporting environments as well as promote enjoyment of nature by people.

It can be seen that the nature of these activities inherently fosters a type of community participation which may engender sustainable environmental benefits.

Nature is used as a co-educator and functions:
- as a catalyst which also provides concrete examples of the consequences associated with individual and group actions
- by giving insight into any change which may occur in nature and using metaphors which are applied and theoretically associated with the activities themselves, eventually leading to personal change
- by providing the backdrop and time for individual reflection, modelling, self-disclosure, and metaphoric processing.

Metaphors are used to link the learning and growth, provided through the experience, to situations found in the person "real-life". The educator/therapist takes on the role of conduit, actively helping the participant to build metaphorical meanings and provide participants with concrete educative/therapeutic tools designed to help them successfully negotiate their own personal challenges and to continue their own change process in their own environments. This fosters a sustainability which from the backdrop of nature can be transmitted to one's own life and be used outside the educative/therapeutic context, independently.

The outcomes

The most common themes derived from the research at Meanwhile Gardens and at other projects based on ecotherapeutic activities are as follows:
- a sense of physical and psychological well-being
- a sense of synergy with nature (sky, animals, plants and the cycles of life/seasons)
- a sense of freedom in the outdoors
- reconciliation with events/people/situations through the use and understanding of metaphors given by nature
- a sense of expectation and surprise
- the lack of negative judgments and of trust in oneself, pride and self-esteem
- skills development and employability
- a sense of place

These findings translate therefore into:
- physical well-being and skills (dexterity, mobility, resilience and stamina through exercise)
- psychological well-being (improved concentration and memory and numeracy, relief of depression/anxiety)
- social well-being (self-management, self-esteem, improved social relations and skills, employability, socio-political awareness and higher eco-ethical consciousness).

Figures 8, 9 – Skillfullness and self-esteem.

Modelling on nature results in having an increased capacity to regulate one's own behaviour and will facilitate further increases in levels of self-awareness, competence and a more internal sense of control of one's own world. Through this process, participants learn to more realistically appraise their own personal strengths and weaknesses, both on a personal and an interpersonal level in other situations.

Participants can learn:
- skills related to personal problem-solving, cooperation, communication
- to face personal challenges and life cycles/changes
- to demonstrate personal competencies and build upon learnt skills
- to accept personal responsibility
- to more accurately assess themselves, and

maintain a higher degree of control over their environment.

This model can lead people to develop a sense of mastery in new and developed skills and fosters a group cohesion which can be very useful in their re-integration in society and in their own social groups.

The typical programme will insure that:

- activities are incrementally sequenced in difficulty and serve as additional reinforcers to support changed behaviours
- the person will be encouraged to accomplish mastery tasks, or initial successes, associated with the activities, this helps them to counteract and tangibly disprove internally focused negative self-evaluations, learned helplessness, and dependency (Kimball & Bacon, 1993)
- participants can learn to achieve increased personal and environmental control.

The added value element of such activities befits the concept of 'embracement' through the active and participative role that is adopted by the individual or group (Burls & Caan 2004).

The experience of working with nature to heal self and ecosystem, which is the basis of the eco-educative/ecotherapeutic model, brings about a series of observed behaviours which can be described as *peak experience* and *flow*, culminating in *embracement*. *Peak experience* is experienced when there is an "opportunity to practice all the learning that has occurred and apply it to one intensive challenge" (Herbert 1996, p.6). Participants experience the challenge as more intense and complex, and these experiences are often used as the culmination of the group experience. *Flow* is an optimal experience that stems from people's perceptions of challenges and skills in given situations (Csikszentmihalyi 1990). People become absorbed in their activities, while irrelevant/negative thoughts and perceptions are screened out. The 'flow' state requires a balance between a high level of challenge perceived in a given situation by an individual and a high level of skills an individual brings to that situation; it is solely determined by the individual's perceived state of how challenges and skills match each other.

Being thoroughly involved in something that is enjoyable and meaningful to the person brings a feeling that their lives are more purposeful and meaningful. This means people feel that they are not becoming/remaining dependent on a narrow range of opportunities for action. They feel they can develop new skills that would open up a much broader arena for social enjoyment/involvement. For some this leads to finding self-developed leadership skills. They become aware of the potential held in their newfound skills to solve collaboratively the many environmental and social problems we face in society. 'Embracement' culminates into the next step, by which an individual can move from personal empowerment into promoting local community empowerment and may find him/herself moving through other growth steps involving citizenship, taking action for what one believes in, mentoring and teaching others towards environmental and cultural sustainability.

Figure 10 – Working in groups (Meanwhile Wildlife Garden, London, UK).

Conclusion

It should be obvious from these outcomes that this educational and therapeutic model represents a positive addition to current modalities of education and well-being. It has outcomes which directly link to social autonomy and inclusion. These are augmented by value added ecological responsibilities and consciousness, which can be brought about by citizens who, having developed these new skills, would act as role models to benefit themselves and their communities and as agents of eco-ethical change.

References

Berger, R. 2004. Nature Therapy. Integratine Therapy, Education and Ecology pub: The Israeli Ministry of Environment (web-site)

Burls, A., Caan, W. 2004. Social exclusion and embracement: a helpful concept? *Primary Health Care Research & Development* 5: 191-192.

Burls, A., Neonato, F. 2005. Il giardino che guarisce. *Acer 6/05.*

Burls, A. 2007. With Nature in Mind. London. Mind Publications

Capanna, M. 2006. *Coscienza Globale Oltre l'irrazionalita' moderna.* Baldini Castoldi Dalai, Milano.

Clinebell, H. 1996. *Ecotherapy: healing ourselves, healing the earth* New York: The Haworth Press

Csikszentimihalyi, M. 1990. *Flow: The psychology of optimal experience*. HarperCollins, New York.

Diamond, J. 1997. *Guns, Germs, and Steel: The Fates of Human Societies*. W.W. Norton, New York.

Ferrini, F. 2003. Horticultural therapy and its effect on people health. In *Advances in Horticultural Science.* Chapter 1 Conference International Society of Arboricolture.

Fromm, E. 1973. *The Anatomy of Human Destructiveness.* Holt, Rinehart and Winston, New York.

Green, K. 1994. Encouraging Nurturing Behavior of Two to Seven Year Olds by Introducing Plants and Flowers in *People-Plant Relationship. Setting Research priorities* Flager, J., Poincelot, R.P. Food Products Press, New York.

Herbert, J. T. 1996. Use of adventure-based counseling programs for persons with disabilities. *Journal of Rehabilitation,* 62, 3-9.

Kaplan, R., Kaplan, S. 1989. *The experience of nature.* Cambridge University Press, Cambridge.

Kellert, S., Derr, V. 1998. *National study of outdoor wilderness experience.* Island Press, Washington, DC.

Kimball, R. O., Bacon, S. B. 1993. The wilderness challenge model. In M. A. Gass (Ed.*), Adventure therapy: Therapeutic applications of adventure programming* Dubuque, IA: Kendall/Hunt Publishing Company.

Louv, R. 2005. *Last Child in the Woods Saving Our Children from Nature-Deficit Disorder.* Algonquin Books of Chapel Hill, New York.

Moore, R., Wong, H. 1997. *Natural Learning: Rediscovering Nature's Way of Teaching.* MIG Communications, Berkeley, CA.

Norris, S. 2004. The extinction of experience. *Conserver* Spring.

Williams, G. C., Nesse, R. M. 1991. The dawn of Darwinian medicine. *Quarterly Review of Biology*, 66, 1-22.

Wilson, E.O. 1984. *Biophilia.* Harvard University Press.

Wilson, E.O. 1992. *The Diversity of Life.* Belknap Press.

Wilson, E.O. 2002. *The Future of Life*. Knopf.

Winnicott, D.W. 1971. *Therapeutic Consulations in Child Psychiatry*. Hogarth Press, London.