



WWF

REPORT

SCOTLAND

2011

Climate Change

Conservation

Sustainability

# The Natural Change Project: Catalysing leadership for sustainability

Leadership  
memories heart  
Learning ego SOUL love concern  
heart thinking me  
Education natural Environment process  
feel change a g  
group Curriculum Val

future transition  
Strategic consumerism  
dystopia journey  
meaning life  
adventure change  
group Action self  
values Sustainability

Our planet can no longer support the demands humanity makes on it. At WWF, we are working to build a future in which people and nature thrive within their fair share of our planet's resources. To achieve this, we are focusing on three big challenges; safeguarding the natural world, tackling climate change, and changing the way we live.

The Natural Change Project is part of WWF Scotland's work on changing the way we live but it also supports our work on tackling climate change and safeguarding the natural world.





The Knoydart Peninsula is one of the last areas of wild land in the UK and is one of the places where Natural Change residentials were held.

## SOCIAL CHANGE THROUGH OUTDOOR EXPERIENCE

---

In 1903, the Scottish-born conservationist, John Muir, took President Theodore Roosevelt on a camping trip to California's Yosemite valley. As a result of his experience, Roosevelt created 5 national parks, along with 150 national forests, 51 bird refuges, 4 game preserves, 18 national monuments, 24 reclamation projects and the US National Forest Service.

The President's experience also led him to argue that it was undemocratic to exploit the nation's resources for present profit. *"The greatest good for the greatest number,"* he wrote, *"applies to the number within the womb of time."* (1916, p300). It's hard to imagine more powerful social and environmental outcomes, just from spending three days in the mountains.

This report explores WWF's Natural Change Project, which develops the principle of personal outdoor experience as a catalyst to social action - so beautifully illustrated by the example of John Muir and Theodore Roosevelt.

Report prepared by David Key & Margaret Kerr for WWF Scotland

# CONTENTS

---

EXECUTIVE SUMMARY	6
PURPOSE	8
CONTEXT	11
PARTICIPANTS	12
PROGRAMME	14
CHANGES	21
ACTION	28
FACILITATION	32
COMMUNICATIONS	35
PSYCHOLOGICAL PERSPECTIVES	36
PHILOSOPHICAL PERSPECTIVES	38
CONCLUSIONS	42
RECOMMENDATIONS	44
APPENDIX A: THE PROJECT TEAM	46
APPENDIX B: PROJECT PARTICIPANTS	46
REFERENCES	47

# EXECUTIVE SUMMARY

---

The Natural Change Project works with people who hold positions of influence in society, offering them potentially life-changing experiences of wild places. It then goes on to support the growth of these personal experiences into leadership and social action for an ecologically sustainable future. The stories of transformation that emerge from this process are published in real-time on the

internet and are intended to inspire others in participants' communities of practice and in the wider world.

This report offers fresh insights into leadership, education, communications and policy for sustainability: for example, in meeting the aims of the Climate Change (Scotland) Act 2009 and supporting *The Low Carbon Scotland: Public Engagement Strategy* (Scottish Government, 2010); and in implementing Curriculum for Excellence and the recommendations made in *Teaching Scotland's Future* (Scottish Government, 2011).

Each Natural Change programme consists of 16 days of residential wilderness workshops, meetings and mentoring over a period of 6 months. It brings together outdoor education, psychotherapy and creative communications, and is designed and facilitated by an outdoor educator and psychotherapist working closely together.

The first programme started in 2008 and the second in 2010. A total of 19 people, selected for their leadership influence in Scottish society, have participated in the project. Their stories have spread globally, and are all available on the Natural Change website ([www.naturalchange.org.uk](http://www.naturalchange.org.uk)).

On the 2008 programme, seven participants were selected from the health, education, private, youth, arts and NGO sectors in Scotland. The group also included a researcher who was responsible for representing participants' experience in the first *Natural Change: Psychology and Sustainability* report, (WWF, 2009) and *The Ecology of Experience: Six months on from Natural Change* report (WWF 2010). The 2010 group of 12 participants were all selected from the education sector in Scotland. They have influence on the delivery of Curriculum for Excellence and in shaping learning and teaching approaches, education policy and the professional development of teachers.

An analysis of participants' experience suggests that the Natural Change Project catalyses a shift towards an identity intrinsically connected with the rest of nature. This transformation in the sense of self brings about a deep and enduring motivation to work towards a more sustainable future. From this interconnected perspective, leadership becomes a practice that serves not only human needs, but also those of our whole planet.

The findings that have emerged from the project are supported by literature from a diverse range of educational, psychological and spiritual traditions. They point to a new way of catalysing social change for sustainability that is grounded in theory and empirical evidence. They also indicate that policy-makers and organisations interested in leadership for sustainability could benefit from investigating approaches that work with people's core sense of identity.

---

**LEADERSHIP  
BECOMES A  
PRACTICE THAT  
SERVES NOT ONLY  
HUMAN NEEDS  
BUT ALSO THOSE  
OF OUR WHOLE  
PLANET**

*“So...has it worked then? It’s the question everyone has been asking...*

*The simple, ‘surface’ answer is yes. Yes, I tell people, it’s made me more aware. Yes, it’s made me think more about the whole range of interconnected themes around nature and our relationship with it as human beings. Yes, it’s made me act different – from changing my shopping habits, to introducing new sustainable procurement policies at work, to feeding the birds.*

*But whilst it’s a true answer, it is an answer of convenience. The more complex answer is also yes, it has worked, but...*

*...in ways it is so hard to articulate, because the impact has affected me inside and out, at every level.*

*... in ways that have made my life much harder, not easier – deep questioning of your values in relation to the world will do that to a girl you know.*

*...in ways that have led to huge frustration – particularly around the issues of engaging the public in tackling environmental issues. There is an element of what I would be tempted to term delusion around how a lot of the key ‘green’ groups are tackling this.*

*...in ways that have led me to uncomfortable truths around choices I have made in the past, but equally having given me the tools to be kind to myself, to understand and forgive, and appreciate what it really is to be human...”*

*L. Macdonald, Participant, Natural Change Project*

---

**A TRANSFORMATION  
IN THE SENSE  
OF SELF BRINGS  
ABOUT A DEEP  
AND ENDURING  
MOTIVATION TO  
WORK TOWARDS A  
MORE SUSTAINABLE  
FUTURE**



© ERIC BURTON / WWF

# PURPOSE

---

The Climate Change (Scotland) Act 2009 aims to reduce Scotland's greenhouse gas emissions by at least 42% by 2020, and at least 80% by 2050. The *Low Carbon Scotland: Public Engagement Strategy*

(Scottish Government, 2010), designed to help implement the Act's aims, alludes to the complexity of this challenge:

*"Setting targets was just the start. Achieving them can only be done through a joint approach, with government, the private, public and third sectors, local communities and individuals all contributing."* (p4)

This is an ambitious aim, which will require a collaborative response from leaders in a wide range of organisations and communities.

Research indicates that leadership comes from a deep personal commitment rather than from a solely intellectual understanding of the issues (for example see, Maslow 1943; Fromm, 1956; Senge *et al*, 2005). This suggests that we need an approach that helps leaders engage **personally** with the issue of climate change and with the wider challenge of sustainability. However, this approach also needs to address contextual factors including the **culture** we inhabit, for example our values, beliefs and accepted ways of behaving, and the formal **structures** of society, including our laws, institutions and policies. The *Public Engagement Strategy* makes it clear that these contextual factors are vital in determining the extent of behaviour change for sustainability:

*"...the contexts in which we all live our everyday lives heavily influence the changes we can and cannot make. In other words, the infrastructure, the services, the products and the kinds of support provided in society all shape the habits we develop and the choices we make. Social and cultural norms - what our neighbours, friends, work colleagues and family do - are also important in determining what we ourselves are willing and, at times, able to do."* (p6)

The *Public Engagement Strategy* and evidence from the field of social psychology suggest that the most powerful changes will result when personal, cultural and structural levels are all addressed together (Stevens, 1995; Wetherell, 1996; Miell, 1996). The Natural Change Project works at these three levels simultaneously to catalyse change for sustainability.

---

RESEARCH  
INDICATES THAT  
LEADERSHIP  
COMES FROM A  
DEEP PERSONAL  
COMMITMENT  
RATHER THAN  
FROM A SOLELY  
INTELLECTUAL  
UNDERSTANDING  
OF THE ISSUES



© STEVE MORGAN / WWF-UK

The Natural Change Project supports participants to turn what they have learned through their experiences of wild areas into action in their everyday lives.



It engages people who hold leadership positions, in a deep process of personal change. It aims to develop new cultural norms by creating public stories of transformation, and at a structural level, it encourages leadership and social action for sustainability. These three levels are in some ways separate, but in other ways, they are powerfully interconnected (Fig 1).



**Figure 1: The interconnected purposes of the Natural Change Project**

Catalysing and supporting personal change is the first purpose of the project, but the project team has been careful not to anticipate, expect or demand this. Participants are simply invited to explore their own experiences of the process as it unfolds. Paradoxically, this creates excellent conditions for change to happen, as Gestalt Therapist Albert Beisser (1970) notes:

*“Change does not take place through a coercive attempt by the individual or by another person to change him... By rejecting the role of change agent, we make meaningful and orderly change possible.” (p77)*

**THE MOST  
POWERFUL  
CHANGES WILL  
RESULT WHEN  
PERSONAL,  
CULTURAL AND  
STRUCTURAL  
LEVELS ARE ALL  
ADDRESSED  
TOGETHER**

Throughout each programme, participants are asked to communicate their experiences in ongoing blogs on the Natural Change website ([www.naturalchange.org.uk](http://www.naturalchange.org.uk)). The practice of writing helps each person to reflect on and to deepen their understanding of the changes they are experiencing. However, crucially the practice of writing does not only work on the personal level. At a cultural level, it works with the principle that cultures are made from the stories we tell each other (Wetherell, 2001) and provides a mechanism by which social and cultural norms can change. The stories of transformation created on the blogs develop a language of social change for sustainability - within participants' communities of practice and in the wider world.

At a structural level, the Natural Change Project works with people who hold leadership positions in their own organisations and sectors. As illustrated by the example of John Muir and Theodore Roosevelt, policies can be shaped by the personal experiences of those who hold power. Natural Change is not only about motivating individual participants to live more sustainably. It is about supporting individuals to translate personal transformation into social action and leadership for a more sustainable future. Case studies outlining the form that this social action and leadership has taken are included in the Action section of this report.



The Natural Change Project brings participants into close contact with wild places. This helps them develop an understanding - through experience - that humans are an interconnected part of nature.



# CONTEXT

---

In 2006, Jules Weston, Communications Manager for WWF Scotland, attended a training programme led by David Key and Mary-Jayne Rust. This was grounded in Ecopsychology, an emerging discipline which works with deep psychological processes to

build an understanding of our intimate dependence on the rest of nature (e.g. Roszak et al, 1995; Buzzell & Chalquist, 2009). Jules' own transformative experience during the programme gave her the idea of organising something similar as part of a communications project for WWF.

Her hope was that if a group of influential people from Scotland could have similar experiences and communicate about them publicly, this would inspire others to realise their own potential for personal change and leadership for a more sustainable future.

Jules asked David Key if he could design a new programme for WWF Scotland. This formed the basis of the Natural Change Project.

The birth of the Natural Change Project came at an interesting time in the history of environmental activism. It had been suggested that common approaches to campaigning - which used challenging statements and shocking imagery - were effective at raising awareness and concern, but were not necessarily the best way to motivate people to make fundamental changes in their behaviour (Crompton & Kasser, 2009).

It was becoming evident that such tactics tended to overwhelm people with fear and guilt, and trigger coping strategies based on denial and escapism (Freud, 1936; Lazarus, 1991; Zeidner & Endler, 1996). Ironically these ways of coping could often involve environmentally destructive behaviours - for example consuming **more** resources as a way of seeking security (Homburg *et al*, 2007).

In an attempt to find a more effective way of motivating behaviour change, some organisations had started to use social marketing techniques which harnessed the mechanisms of consumer society to promote pro-environmental behaviour. Researchers were finding that social marketing successfully encouraged small changes in some areas of personal behaviour (Crompton, 2008). However, because social marketing capitalised on the psychology of consumerism, it was also suggested that it could actually embed consumer psychology more deeply into society (Lakoff, 2006).

The assumptions and attitudes of consumer culture are a root cause of many of our unsustainable lifestyles and behaviours (Cushman, 1990; Kanner & Gomes, 1995), but it seemed that extant approaches to behaviour change were at risk of inadvertently reinforcing the root of the problem. From the early 1990s, the emerging discipline of Ecopsychology began to offer a way out of this impasse, by exposing the assumptions and psychological processes of consumerism. At the heart of consumer psychology is a perception of the self that sees humans as separate from, and usually superior to, the rest of nature, as if the rest of nature were there exclusively for human benefit. This view of a separate, superior self is so all-pervasive in industrial culture that we often take it for granted (Washburn, 1995; Naess, 1986). But it is in direct conflict with our biology, which knows our lives to be utterly dependent on our ecological context. Ecopsychology suggests that it is vital to challenge this notion of the 'separate' self, if we are to address the extent, scale and speed of the social change required to live sustainably.

Grounded in Ecopsychology, the Natural Change Project works to align our psychological sense of who we are with the biological reality of what we are - an interconnected part of nature. By working with the sense of self in this way, the Natural Change Project provides a unique perspective on personal change and leadership for sustainability.



---

THE  
ASSUMPTIONS  
AND ATTITUDES  
OF CONSUMER  
CULTURE ARE THE  
ROOT CAUSE OF  
MANY OF OUR  
UNSUSTAINABLE  
LIFESTYLES AND  
BEHAVIOURS

# PARTICIPANTS

---

Participants were invited to take part in the Natural Change Project because they held positions of influence in various sectors of Scottish society and had the capacity to translate their experiences of personal change into wider action within their own sectors.

In the 2008 programme, seven people were selected from the health, education, private, youth, arts and NGO sectors in Scotland. In this programme, participants were chosen for their ability to communicate their experiences to large professional and social networks of people who were interested in their opinions. The group also included a participant researcher who was responsible for representing the group's experience in the *Natural Change: Psychology and Sustainability* (WWF, 2009) and *The Ecology of Experience: Six months on from the Natural Change Project* reports (WWF 2010).

On the 2010 programme, 12 people were selected from across the education sector to represent as many aspects of this sector as possible - including teacher education, local authorities, colleges, universities, trade unions and voluntary sector organisations concerned with children and young people. In this programme, the participants were chosen for their insight into education policy and practice, and for their capacity to influence education programmes, institutions and professional communities.

In extending invitations to potential participants, the Natural Change Project presents significant challenges. It is so different from the majority of professional development approaches that people in organisations can struggle to understand its value and relevance to their work. The programme also requires a commitment of 16 days over 6 months. Committing to this amount of time away from work presented a big challenge for participants on both programmes. However, this has been an important learning experience, as a chronic lack of time to reflect, explore and share our deepest feelings may well contribute to our ecologically unsustainable lifestyles (Kerr & Key, 2011a; Firman and Gila, 1997).



The programme also asks that participants are willing to engage in a process that can be emotionally demanding. In light of this, each potential participant is invited to a face-to-face meeting with the project manager, who has previously participated in the Natural Change process. At this meeting potential participants can gain an understanding of what the programme involves and the project manager can help them identify any health, personal or professional constraints that might hinder full participation.

One area of the programme that can cause particular anxieties for participants is communicating publicly about their personal processes of change. These anxieties usually centre on the boundaries between personal and professional life, reputation in the workplace, and the challenges of communicating about a process that is very different from familiar professional practice. It is for this reason that individuals in high profile public or political roles, who are constantly required to actively manage their public image, may not be able to participate in the Natural Change Project.

---

**A CHRONIC  
LACK OF TIME  
TO REFLECT,  
EXPLORE AND  
SHARE OUR  
DEEPEST FEELINGS  
MAY WELL  
CONTRIBUTE TO  
OUR ECOLOGICALLY  
UNSUSTAINABLE  
LIFESTYLES**





During the Natural Change Project, participants research social change movements and present their findings to the group. These presentations take place during a walk in the hills where the journey becomes part of the experience.



# PROGRAMME

---

Each Natural Change programme comprises two one-week-long, residential workshops. These are held four months apart in wilderness areas. A series of one-day meetings in urban settings is also held before and after these residential workshops. The group works together for a total of 16 days over a six-month period.

Before the first residential workshop, the group meets for a day to allow participants to introduce themselves to each other and prepare for their first wilderness experience.







# FIRST RESIDENTIAL

---

The first week starts with a co-counselling activity, where participants can listen carefully and openly to the expressions of each other's needs. This takes place in the context of a group discussion about human needs in general terms. This session is followed by a walk, in which the group progressively slows down, becomes quiet, and starts to experience the land around.

In the course of the walk, there is time to sit quietly alone, and in a guided meditation which engages the five senses.

This experience acts as preparation for the next day's solo - a day spent alone in the land from dawn to dusk, in silence, in one spot. The solo is central to the Natural Change process. It comes from a long tradition of practice that spans almost every human culture (Eliade, 1964). The best known examples of this kind of practice are the Native American 'Vision Quest' and the Australian Aboriginal 'Walkabout'. It could also be said that three of the world's largest religions are grounded in the insights of someone who spent deliberate time alone outdoors: Christ spent 40 days in the wilderness, Buddha spent time in a forest grove, and Muhammad retreated to reflect and meditate in a mountain cave.

In many cultures, these types of practice act as an initiation into a different stage of life; at other times their focus is less specific. What is certain though, is that they are all intended to catalyse personal and social transformation; they represent the world's most widely practised change programmes, with an impact lasting thousands of years in some cases. It is interesting that they are largely absent in our dominant industrial culture.

Natural Change offers its own form of solo derived from this rich heritage, while being careful not to colonise, trivialise or idealise cultural and sacred practices that are not our own. It also emphasises those aspects of the practice which can be found in our own indigenous culture, within the British Isles. There are a few simple guidelines, which help structure and contain the experience.

Participants are asked to step over a threshold at the start of their journey, and to step back over that same threshold on their return. They are encouraged to follow their intuition in finding a spot to sit, and once they have found that place, to remain within a 10 metre radius of it until the end of the day. Group members may choose to fast during the day. Participants are asked not to take a watch, map or phone, but to take their cue to return from the setting sun, and to maintain an awareness of where they and adjacent group members are in the landscape. Each participant is provided with a survival bag and whistle, and a safety briefing is given the night before the solo.

Participants set out at dawn to spend the entire day without human company and return as the sun sets. Silence is held from the evening before the solo day until the morning after, when everyone gathers to share their stories. The structure and containment of the storytelling process creates a respectful space, where everyone listens attentively to what is being told. Again, a few explicit guidelines help to structure this experience and create an emotionally safe setting. These include an agreement of absolute confidentiality, listening in silence while each story is told, reflecting back only the contents of the story, not making any judgements and not bringing any prior knowledge of the storyteller's life into the process. The storytelling takes place around the fire in a traditional Swedish tipi. Symbolically, the tipi becomes a 'sacred space' - a physical correlate of the circle of trust and respect which allows participants to share their thoughts, feelings and experiences honestly. The form of the storytelling circle is based on traditions as diverse as the Lakota Souix, ancient Celts and African Mande. The archetypal practice of telling stories around a fire connects us to our innate sense of community, and emphasises that such unmediated communication has allowed humans to survive so far - and may well be the key to our future.

During the storytelling, symbolic, metaphorical and poetic forms often emerge. The next day, there is an opportunity to explore the symbolic realm further in an activity called 'Mirror in the Wilderness' designed by the psychologist, Sarah Conn. This involves a quiet exploration of a wilderness area, in pairs - taking turns to ask two simple questions: "What do you see?" and "What does this tell you about your life question or situation?" In this way, the surrounding land, rocks, plants, rivers and trees act as a 'mirror' which deepens personal understanding through metaphor.

The focus in the first workshop is on personal healing, and personal relationship with the land and sea.

---

THE FOCUS  
IN THE FIRST  
WORKSHOP IS ON  
PERSONAL  
HEALING, AND  
PERSONAL  
RELATIONSHIP  
WITH THE LAND  
AND SEA



# BETWEEN THE RESIDENTIALS

---

The intermediate day between workshops tends to act like a bridge, where the focus of the work shifts out from personal to social and ecological issues. This work involves creative, experiential and theoretical exploration of models of self, and an investigation of consumerism and identity. Although this widening of perspective from the personal world is a vital part of Natural

Change, it is wise not to rush or prescribe this transition. If the shift is premature, any unacknowledged personal trauma will act as a brake on engagement with the process.

In the time between workshops, participants are asked to undertake a short solo in an urban environment. The urban solo consists of 90 minutes spent silently alone in one spot in a city centre location. As in the wilderness solo, participants are asked to step over a threshold, to follow their intuition to find a place to sit, not to take a phone, iPod, food or money, and to step back over the same threshold when they return. Whereas in the wilderness solo, the threshold was the door of the tipi, in the city solo, the threshold is improvised - perhaps crossing a road, or walking through the automatic doors in a shopping centre. The intent, however, is the same - to create a bounded and defined space for reflection on self and context.

In preparation for the second residential week, participants are also asked to research stories of social change movements. The choice of which movement to study is up to each individual; examples being the French Resistance, the American Civil Rights Movement, the Suffragette Movement and so on.

An important part of the facilitators' role is to support participants in managing psychological changes that emerge between the residential parts of each programme. This support takes place in the form of face-to-face meetings, phone calls or by e-mail. There is a delicate boundary to be managed here between psychotherapy and mentoring. Although there is a therapeutic and healing aspect to the programme, the facilitators' role is not to offer psychotherapy: what they offer is support and mentoring. In practice, this boundary can be managed well with openness and clarity of intent.



---

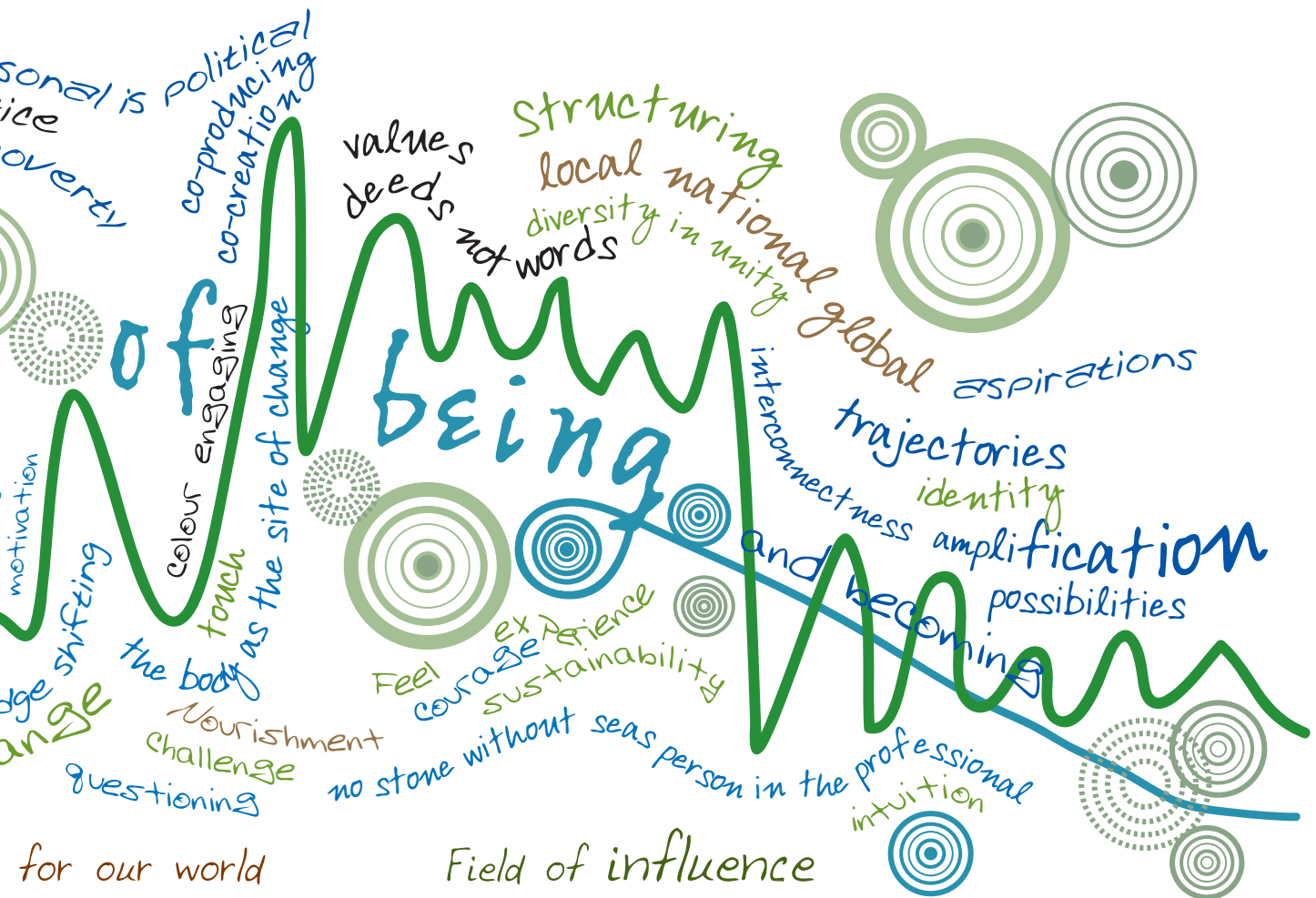
**BETWEEN THE  
RESIDENTIALS  
THE FOCUS OF  
THE WORK  
SHIFTS OUT  
FROM PERSONAL  
TO SOCIAL AND  
ECOLOGICAL  
ISSUES**



© SV LUMA / FOTOLIA.COM

Although it is based mainly on experiences of wild places, the Natural Change Project also involves spending time in urban environments, for example on a 90 minute 'city solo'. Time to reflect on our industrial lifestyles brought some valuable insights.





atural Change process?”. This helps them to respond when asked by family, friends and colleagues about their experience on the project. s, the flow of a river, and the role of amplification in natural processes.

There is then further time alone in the land to reflect on personal motivation to act - as framed by the question: Where is “... *the place where your deep gladness and the world’s deep hunger meet?*” (Buechner, 1993, p119). This reflection brings together many aspects of the preceding programme. As participants’ sense of self ebbs and flows during their experience, not only do questions about personal identity arise but also about how a changed sense of self responds to the world at large. Having space to explore this question freely without pressure of expectations is an essential step in the journey from personal experience to social agency.

Towards the end of the week, participants engage in a deep exploration of the processes of change. First individually, by making representations in a land art session, which allows intuitive, felt and non-verbal understandings of change to come to the fore. Then, collectively, producing a group model of social change.

The week concludes with a discussion of potential routes for personal and collective action, and the move to social action is strengthened in the ensuing weeks, and in a final one-day workshop. This last one-day session is held in an urban setting, about three months after the second residential.



# AFTER THE RESIDENTIALS

---

After the residential and workshop elements, the facilitators and project manager continue to give emotional support to participants through face-to-face meetings, email and by phone. Practical support is also formally offered by WWF Scotland to participants who want to develop specific projects within their organisations.

Participants from the 2008 group have continued to engage with the project themselves - as a peer group. Having shared a deep and powerful experience, and having developed a language and culture of their own, they have spontaneously maintained contact with each other. This peer group is still strong after two years. Each year, they have held a wilderness reunion centred on a solo and storytelling. At the time of writing this report, the 2010 group has only just completed the Natural Change workshops, so it is too early to see if a similar pattern will emerge. However, a strong desire to carry on with this work has been expressed within the group, and collaborative projects between participants are already being established.



© DEBORAH RICHARDSON-WEBB / WWF

It can sometimes be difficult for participants to explain in words what they are experiencing and how their perceptions of the world have changed; creative approaches can help. This land art, created out of natural materials, explores the feeling of 'groundedness' in the landscape. By Deborah Richardson-Webb.



# CHANGES

---

As a preliminary investigation of the process of change that participants have experienced, a thematic analysis (Braun and Clark, 2006) was conducted on blogs created during both programmes of the project. Not all the changes

described here happened to everyone, but it has been possible to identify an overall pattern that is becoming stronger as the number of people completing the project increases.

Excerpts from participants' blogs are presented to illustrate the themes, which are shown in **bold**. These represent only a small fraction of what participants wrote throughout the programmes. All the participants' writings are available online at [www.naturalchange.org.uk](http://www.naturalchange.org.uk).

In general terms, and perhaps as to be expected, changes are most subtle at the beginning of each programme.

From the early stages of each programme, participants developed an increased appreciation of **slowing down, silence**, and time to **reflect**.

*"Silence is so powerful and I think about all the unnecessary chat and noise that exists in my life and that of the society I inhabit and I remember the words of Thomas Merton... 'Those who love their own noise are impatient of everything else'." (R. Murray, 21/10/10)*

*"The Natural Change Project has given us all the opportunity to 'get off' and break away from our hectic lifestyles. It has enabled us to stop, think, reflect and gather our ideas on sustainable lifestyles and attitudes." (R. Shanley, 17/12/08)*

*"Easing oneself into the busy work arena was strange this week in that the automatic pilot was not wanting to step onto the treadmill and hasten the pace. Awareness of 'being' and the time on solo kept coming back to my thinking and accepting that change could be made by me in the way I approached my work and other people." (E. Burton 27/10/10)*

**Sensory awareness** was heightened, and there was a **new awareness of the rest of nature**, often associated with a sense of **calm** and **clarity**. This was often first experienced on the solo day, and was maintained on return from the residential.

*"From the sounds of the deer blending with the sounds of the birds to the smell of the seaweed on the beach, my solo day saw all of my senses heightened." (J. Daffurn 19/10/10)*

*"On my return I felt very alive, hyper-sensitised. Alive to the beauty in everything (particularly my fellow human beings), alive to the land I inhabit everyday, alive to the words of others, alive to the lessons in all that surrounds me." (D. Richardson-Webb, 05/11/10)*

*"All groups should take some time out to sit on a beach, under a tree, on a mountain top, or on a park bench, it does the soul a power of good and helps clarity or at least calm." (E. Peel Yates, 18/10/08)*

*"Perhaps the clatter and din of the urban life, of which I am now more acutely aware, has progressively desensitised me, with regard to the earth I've been almost deaf to it. I see more sharply, noticing more things, like my neighbourly rowan trees. Such visual acuity I can't imagine living without now." (G. McLellan, 09/10/08)*

Several participants experienced emotional **catharsis** and **healing** of past trauma and grief, especially on solo. This was followed by feelings of **gratitude** or **joy**.

*“So how do you explain dancing at the top of a mountain, laughing uncontrollably, roaring with anger and frustration?” (G. Singh, 9/11/08)*

*“I confronted my personal demons on that solo and came back to Glasgow internally euphoric.” (S. Munro, 18/11/08)*

*“In learning that the wilderness can be such a powerful source of intense natural healing, I have a new and profound respect for the earth and our complex relationship with it. I now know that this is a new beginning and, at heart, I am a truly wild soul.” (L. Macdonald, 8/03/10)*

Often, there was an increase in spontaneous **play**.

*“I hung on the tree like a bear. Embraced it with cheek to bark – legs and arms swinging close to the water, happy like a child and silent at last so... some still place to be from, to move in being still.” (G. Troup, 13/03/11)*

From a basis of increased present-moment awareness of natural processes, participants developed a recognition of **constant change** and **interconnectedness**.

*“Thoughts ripple like the water. Every look up from the paper, sees another shift in light, tone, colour, details previously unseen, constant natural change.” (G. McLellan, 09/02/09)*

*“I begin to wonder what it would be like to lie here forever, slowly being covered by leaves, dissipating outwards, becoming part of the living entity that is a forest floor. I idly speculate on what the world would look like if you could take away everything but the life that inhabits it. I imagine it would look like an intricate, sparkling silver web; each life forming a knot in the threads, constantly raveling and unraveling.” (M. Watson, 13/10/10)*

This was suggestive of a shift towards a sense of self which was integrated with and aware of the ecological context - an **ecological self**.

*“I understood in a new way that we are nature that there is no dualism, I am not a visitor to the environment admiring its beauty but rather I am in the earth and of the earth. It is a relationship of being not having. Perhaps if we had deeper understanding of this sacred relationship we would preserve and nurture our earth rather than destroy it.” (R. Murray, personal communication, 19/04/11)*

Growing ecological awareness often initially brought dismay and overwhelm, as the **tensions of consumer culture**, **damage to ecosystems** and the **scale of our ecological crisis** was felt.

*“Maybe I’m in a culture shock of sorts. The guilt flight back from London City to Glasgow really was disgusting. Cramming ourselves in a pressurised tube, hurtling together at hundreds of mph, breathing one another’s breath, sweating one another’s sweat. Scrambling for phones, PDA’s and laptops, ordering cabs, grasping bags of duty free. I was dismayed by the pace and wastefulness of our consumption culture, now I am more disgusted. So what am I going to do about it? What do I do next? What do I not do next?” (G. McLellan, 09/10/08)*

*"I wander amongst the rock pools noting how clear the water is, despite our filthy habits, the sea having done its utmost to spit out the jetsam, flotsam and other detritus back onto the shore. But I think this masks the unseen damage we have inflicted on the seas around our shores, less obvious at times perhaps but much more insidious.*

*The sea washes over the footprints I left in the sand... leaving no trace, no imprints, no impressions." (V. Drew, 30/01/11)*

*"When asked to physically place myself on the spectrum between the two visions in relation to where we believe the world to be heading, I found myself silently crying and unable to move. I have since wondered where this feeling welled up from, suddenly and unexpectedly. Of course it wasn't a surprise to be confronting these ideas during this week, indeed it would have been strange if we hadn't. But my emotion was overwhelming, and my inability to move - my inability to commit to the fear of my dystopia caught me off guard."*  
*(D. Richardson-Webb, 21/02/11)*

To varying extents, participants wrestled with the personal identities created by consumer society, particularly in the context of shopping. This involved **recognising the cravings of the ego, becoming conscious of the link between consumerism and identity**, and experiencing an **aversion to consumerism**.

*LBD (Little Black Dress)*

*Girls' day out,  
We went to town  
BFF Ego and me, that's  
MOI, MOI, MOI*

*OMG, a LBD, she said  
OTM, not OTT  
So very TOI so why not  
TRY, TRY, TRY?*

*Be more, not less, she said  
Become someone  
Like you but more, 'cos it's a  
TEN, TEN, TEN\**

*Give it a whirl,  
Said the party girl  
You'll get what you want  
LOL. LOL. LOL*

*I said pax Ego,  
It shall be mine  
To the ball I shall go and I  
BUY, BUY, BUY*

*Some things were not for sale that day  
The dress being more but less  
Lied, not satisfied, wasn't very  
ZEN, ZEN, ZEN*

*False friend Ego.  
When will it dawn that to  
OWN, OWN, OWN is just a  
CON, CON, CON*

*\*poetic licence  
(S. Smith, 23/11/10)*



*“So yes, I consume in order to chase the parts of the dream I can - generally high-end, high-street adaptations and homages with the occasional high-octane designer purchase thrown in, usually as a reward to myself. And it does make me feel better. I walk taller. I’m happier when I look in the mirror. I can face the world with my chin up. Bring it on. It’s an absolute, intrinsic part of my identity” (L. Macdonald 4/11/08)*

*“I’ll get straight to the point: the only things that I have bought in the post-Christmas sales bonanza were a cooking pot and a new waterproof jacket from Tiso.*

*Does that mean this thing is working??”(L. Macdonald 07/01/09)*

*“What’s happening to me?! I don’t want to shop any more. I used to shop for enjoyment and this Christmas was different. I didn’t go into town once. When I did go into a shop, rather than feel overwhelmed at all it had to offer, I felt overwhelmed at all the crap. When I told my friends this they said ‘but Emma, you love shopping!’*

*I’ll have presence over presents any day please.” (E. Little 14/01/09)*

However, gradually, the **tensions eased**, and a **new sense of clarity and intent** emerged.

*“The necessary but impossibly difficult movement from the macro ‘despair for the world’ to the micro ‘what action can I take?’ is a kind of ‘positive disintegration’ that is helping lead me towards a better understanding of why the the web of human connectedness must be made conscious.” (D. Richardson-Webb 21/02/11)*

*“Over the last couple of weeks I feel as though I have been waking up from a deep sleep. Everything feels lighter and easier - why is this? Is it because it is Spring? Perhaps my energy is being restored with the increase in sunlight and warmth.*

*Or is it because I’ve been through a long change process that’s forced me to think deeply and often left me in a state of confusion. And I’m now starting to see the trees - and the wood? Maybe the blankets are coming off again - in a safe, freeing way. I think what’s different is a sense of clarity and intent.” (E. Little, 20/04/09)*

Opening to **intuition and creativity** became increasingly common as the process evolved. **Symbolic and metaphorical understandings** developed, and at times, experiences were **hard to express in words**.

---

**AT TIMES,  
EXPERIENCES  
WERE HARD  
TO EXPRESS  
IN WORDS**



© VALERIE DREW / WWF

Metaphors were an important tool for articulating and exploring ideas and feelings that are not commonly discussed in our industrialised culture. Images of threads, knots and weaving were common to many discussions and explanations. By Valerie Drew.

*"I feel like I've reconnected with my intuitive and creative self - an astonishing gift that I am so grateful for." (L. Macdonald, 08/03/10)*

*"To share the leadership, There must be mutual respect between us all the time... Sharing the hardest problems and tasks...Gathering our abilities and combining our faculties, talents and resources..."*

*The geese flying on a "V" formation, they quack to encourage to the ones in the front. In that way, they keep the same speed." (E. Burton, 24/10/10)*

*"It would seem that words are not enough. Natural Change has to be experienced before it is talked about and lived before it is explained. We can and do hear it but we have also got to feel it." (S. Smith, 09/02/11)*

At different times for different participants, there was an affirmation of **authenticity** and **intrinsic values**.

*"Authenticity, it keeps coming up. Blog authenticity, personal authenticity, authenticity of the project. You try blogging about that without feeling pretentious. (that's a challenge by the way). This project is a values based research exercise so authenticity is key. I am thinking about starting a one woman mission to encourage people to be themselves in all situations and try and resist the pressure to conform to what we imagine is expected. Why wear one shirt for one group of friends and another for work? Who do we think we are fooling? No wonder we are all so stressed. Thing is I really think people prefer us when we are ourselves and not what we think we ought to be." (E. Peel Yates, 19/12/08)*

*"Sitting here in this amazing scenery I know that we must find our real selves, not in what we do or how we impact on others but in our own souls which is the place of our principle and feeling." (R. Murray, 21/10/10)*

A new heartfelt **commitment to personal and collective action** emerged.

*"I know what I need to do and I have the resolve to do it. I am becoming." (D. Richardson-Webb, 12/03/11)*

*"There is a definite will that didn't exist before, which now comes from my heart, not just my head." (L. Macdonald, 03/02/10)*

*"We all have to be clear what the purpose of our journey is and travel together to find the most effective route to take in our quest for living in a more sustainable way. We cannot do this alone as Gandhi also found out." (R. Shanley, 07/12/08)*

*"... we cannot **not** be people who model sustainability and have sustainability at the heart of our pedagogical principles and practices. That's one of the most important challenges in our world because we have to be able to develop, and I think that Curriculum for Excellence gives us this opportunity... asking critical questions, clarifying values, not just accepting assumed values, but really interrogating them; are these the values we really hold or are they the values that are imposed on us by a very consumerist, materialist society; to get back in touch with what we really believe and to really be able to start thinking and planning by envisaging a more positive and sustainable future for us, our children, for our grandchildren.*

*And we have to do that by thinking systematically and planning sustainability systematically into our practices, into our curriculum, into our policies. Because the planet, the Earth is the most sacred thing that we hold...*

*I feel quite strongly and passionately that this has not just been a great experience for me at a personal level, which it has, but I think it has given me transformative change ... which I'm beginning to see how I can now embed within the work I do directly here and hopefully for the benefit of learners in education, which is what it's all about." (R. Murray, General Teaching Scotland podcast, 01/04/11)*

---

**PARTICIPANTS  
GENERATE AN  
EVOLVING  
COMMUNITY OF  
PEERS WHO WORK  
TO DEEPEN THEIR  
EXPERIENCE,  
UNDERSTANDING  
AND MOTIVATION  
TO ACT**

The changes that result from the Natural Change Project are not easy to specify using conventional 'tick-box' outcome measures. The process of change is subtle and ongoing; part of an internal reorganisation of self; part of an external reorganisation in which participants generate an evolving community of peers who work to deepen their experience, understanding and motivation to act. Change happens at different rates for different people. The duration of each Natural Change programme is six months, but the process of change can be much longer. There are levels of subtlety to this process which are only hinted at in the discussion above; experiential changes which are hard to convey in words.

One of the participants on the 2008 programme put it like this:

*"So...has it worked then? It's the question everyone has been asking..."*

*The simple, 'surface' answer is yes. Yes, I tell people, it's made me more aware. Yes, it's made me think more about the whole range of interconnected themes around nature and our relationship with it as human beings. Yes, it's made me act different – from changing my shopping habits, to introducing new sustainable procurement policies at work to feeding the birds.*

*But whilst it's a true answer, it is an answer of convenience. The more complex answer is also yes, it has worked, but...*

*...in ways it is so hard to articulate, because the impact has affected me inside and out, at every level.*

*... in ways that have made my life much harder, not easier – deep questioning of your values in relation to the world will do that to a girl you know.*

*...in ways that have led to huge frustration – particularly around the issues of engaging the public in tackling environmental issues. There is an element of what I would be tempted to term delusion around how a lot of the key 'green' groups are tackling this.*

*...in ways that have led me to uncomfortable truths around choices I have made in the past, but equally having given me the tools to be kind to myself, to understand and forgive, and appreciate what it really is to be human...*

*A key issue throughout NC has been the journey between being a participant in the project, and then where it would take us as activists – the next steps we, the 'chosen leaders in our sector', would take to cascade what we had learned, the action we would take to put our 'personal change' into practical action authentically. It's been a heavier responsibility than any of us anticipated at the start – well, for me anyway. That word 'authentic' is a killer by the way...makes you stop and think...*

*That step has been an interesting one – there's been a sense of wanting to 'hold the circle' of what we have been through and experienced together, but then the responsibility to step out into the wider world has been so strong, so necessary – the world needs more from us.*

*...First – NC gave me back my heart. And for that I will always, always be profoundly thankful.*

*Second – I'm ready. Ready to act. Ready to step out into the world.*

*And so more change is afoot – deeper change. The stone has been cast into the water, and the powerful ripples are spreading. It's just that sometimes, those ripples take longer to reach out than you – or others – expect." (L. Macdonald, 08/01/10)*

---

**I KNOW  
WHAT I NEED  
TO DO AND  
I HAVE THE  
RESOLVE TO  
DO IT**





The shore and the boundaries between land and water had a deep resonance for many of the participants. Spending time alone in quiet reflection, in these environments, was a powerful catalyst for change.

# ACTION

---

As the 2010 programme has just finished it is too early to study its behavioural outcomes in this group. A longitudinal study of all the Natural Change participants' involvement in action and leadership for sustainability is planned for 2012.

In the meantime, however, there is compelling evidence from the 2008 programme that the personal transformation represented in participants' narratives has led to leadership for sustainability.

To illustrate this we have selected two case study examples.

pen  
ae

ism,

en  
ne  
y  
l

as a  
es  
ent,

st,  
ffer

ou

,

out









**Louise Macdonald**  
chief executive  
young scot

## Case studies

**As a direct result of her Natural Change experience, Louise Macdonald has initiated the following specific organisational activities in her role as Chief Executive of Young Scot:**

- a full carbon footprint mapping exercise carried out by a student through the Green Business Partnership;
- redesign of internal business processes to allow measurement of annual carbon footprint;
- issue to employees of new guidance on travel, print and merchandise procurement;
- development of a new responsible purchasing strategy, with the aim of encouraging all the organisation's suppliers to also act responsibly;
- installation of a full recycling collection process throughout the organisation;
- establishment of a Staff Wellbeing Group to promote fairtrade and healthy lifestyles;
- introduction of a staff bike purchasing loan scheme supported with Bike Doctor sessions in the car park at work, and information about safe cycle routes to work;
- all staff members took part in WWF's Earth Hour.

At a more strategic level, Natural Change has inspired Louise to lead her organisation into partnership with Scottish Government to carry out work with young people around *The Low Carbon Scotland: Public Engagement Strategy* (Scottish Government, 2010). This includes a national survey and establishing three Local Investigation Teams of young people to explore key aspects of a low carbon future, including individual, household and community actions, rural issues, and renewable energy.

Louise has worked with British Trust for Conservation Volunteers in Scotland to promote its work with young people, and produced a video hosted on Young Scot's YouTube site. She has developed relationships with the Department of Energy & Climate Change Youth Panel and the UK Youth Climate Coalition. She has also instigated the promotion of a variety of environmental events and campaigns run by relevant organisations aimed at young people across Young Scot's online and social media channels.

Louise has recently been invited to join Scotland's 2020 Climate Group, chaired by Ian Marchant of Scottish & Southern Energy plc (<http://2020climategroup.org.uk>). She has also been asked to participate in the Public Engagement Sub-Group with a primary aim of linking to the Transport Sub-group to encourage young people to use public transport. (Macdonald, 2011)



**Roseleen Shanley**  
principal teacher  
Bucksburn academy

**Roseleen Shanley, Religious Moral and Philosophical Studies teacher at Bucksburn Academy, has created numerous collaborations and initiatives as a result of her Natural Change experience:**

*“Natural Change has had a great impact on my work. We have been busy working with the National Trust for Scotland at a number of its properties doing a range of tasks from path building, to clearing overgrown shrubs, and planting native flowers and trees. This work resulted in the pupils gaining their John Muir Awards, along with their teachers. The pupils also won an award for ‘Working in the Community’.*

*Aberdeen University is working with us on a research project to establish how student leadership is evolving through our environment and sustainability work. This is part of our Comenius Regio project which is linked to schools in Italy that will also take part in our projects. This approach has been inspired by the Natural Change report (WWF, 2009), which was given to all members of the Comenius Regio group and the university.*

*We now have a sub group of our Community Council which meets at Bucksburn Academy to plan community-based sustainability projects. This includes business partners, external agencies and the young people themselves. The work of the group ties in with community planning ‘Neighbourhood Priorities’ which covers such areas as life long learning, volunteering, developing awareness of community councils and giving young people a voice and involvement in their community.”  
(R. Shanley, 14/08/10)*

Finally, as part of Curriculum for Excellence, Roseleen has established an outdoor classroom within walking distance of her school. This will be used by all subject departments, bringing outdoor experience to the heart of the school (Shanley, 2011).

The movement from personal transformation to leadership for sustainability has also been found to happen in professional practice beyond the Natural Change Project (Key, 2003), and is predicated by the psychological theories explored later in the report.

# FACILITATION

---

The facilitation of Natural Change draws on a wide range of influences. These include, for example, psychotherapy, focusing (Gendlin, 1978), popular education (Friere, 1996), developmental outdoor education (e.g. Priest & Gass, 1997), experiential learning (Kolb, 1984), and Buddhist and Taoist traditions. The practices of ecophilosophers Joanna Macy (1999) and John Seed (1998), and the work of Steven Foster and Meredith Little (1988) from The School of Lost Borders have provided inspiration and insight, and several of their activities have been adapted for use in the Natural Change Project.

The core programme was first developed by David Key but it has evolved greatly over the years, especially thanks to David's collaboration with psychotherapist and ecopsychologist Mary-Jayne Rust since 2004, and in collaboration with Margaret Kerr since 2008.

Many of the activities brought together in the Natural Change approach have been drawn from indigenous and ancient practices. In that sense, they have a lineage that starts long before their appearance in modern personal and social development work.

## Being rather than doing

In keeping with the philosophical basis of the project, there is a strong focus in the facilitation style on 'being', rather than 'doing'. This means that, although there are key activities which constitute the programmes, as much attention is given to how these activities are facilitated as to what activities are offered. Here, the influence of Taoist and Buddhist philosophy gives the courage to slow down, do less and trust more; Natural Change is a creative process, and the facilitators' job is to stay present and attentive as this process unfolds:

*"If we are able to stay with a situation, it will carry us to a new place. The 'process' knows where it needs to go and if it is exclusively directed or controlled by any one person, we miss the opportunity to learn this lesson. There is a group mind or collective intelligence working in every situation, and if we can trust it, and sincerely support its natural movement, it will astound us with its ability to use whatever we give it." (McNiff 1998, p24)*

In the face of pressure to achieve traditionally valued 'outcomes', such as strategies and action plans, it can be tempting to force the pace. Experience suggests that this does not produce the best conditions for continued change.

As one participant said:

*"Don't try to hurry it.  
Let it be natural"  
(J.Daffurn 23/02/11)*

In the time between workshop sessions, and before and after each residential, the facilitators engage in a constant cycle of reflective practice and peer supervision. This enables them to stay close to subtle shifts in the process and respond sensitively not only to participants, but also to each other and to the place in which they are working. The reflective practices used include co-counselling (e.g. Heron, 1989), focusing (Gendlin, 1978) mindfulness meditation (e.g. Kabat Zinn, 1991) contemplative practice in the land, and work with imagery and symbols.

The character of the process is different for each group, and in each different physical landscape. The whole combination of land, history, people, animals and plants determines the unique nature of what emerges.

---

MANY OF  
THE ACTIVITIES  
BROUGHT  
TOGETHER IN  
THE NATURAL  
CHANGE  
APPROACH HAVE  
BEEN DRAWN  
FROM INDIGENOUS  
AND ANCIENT  
PRACTICES



## The Crucible

Experiencing the self as part of the rest of nature forms the heart of the Natural Change process. However, this experience is often unsettling at first, as old psychological structures of meaning break down and new ones grow. As awareness increases and the sense of self widens, emotional trauma from the past can surface and then be healed and understood (Kerr and Key, 2011a).

There can be a sense of boundlessness - especially when these transformative experiences are happening in a vast landscape. This boundlessness is vital to the freedom of the process, but there also need to be boundaries so that experiences do not become dispersed or emotionally overwhelming. Throughout the programme, the facilitators hold a balance between boundaries and boundlessness. As psychotherapist and ecopsychologist, Nick Totton (2010) writes:

*“... a practitioner who cannot offer her clients boundaries is dangerous. But a practitioner who cannot offer her clients boundlessness is useless.” (p15)*

The boundaries and structure that the facilitators offer create a safe container - a crucible - within which deep changes can take place (Preece, 2006a). Attention to confidentiality and time, accurate communication, personal reliability and availability, awareness of safety issues and knowledge of the local area all form parts of the container that is built and maintained. Careful attention to the physical need for food and warmth is also essential. The project cook plays a vital role here, in ‘holding the hearth’ - providing nourishing food, a warm comforting sense of ‘home’ and informal support to participants and staff.

The crucible which holds the group must provide a compassionate ethical framework, while at the same time allowing the freedom to explore and to experience challenge. Creating this sort of container has roots in both **psychotherapy** and **developmental outdoor education**.

The Jungian and Psychodynamic traditions of psychotherapy have always stressed that predictable boundaries of time, confidentiality and trust help clients to express and explore powerful emotions as they arise (eg. Preece, 2006a; Gray, 1994). In Person Centred Therapy certain ‘core conditions’ - such as genuineness, empathy, respect and acceptance - are seen as essential to creating a relationship where change can happen (Rogers, 1980). And the psychotherapist, Irvine Yalom (1970) has identified a number of ‘therapeutic group factors’ for example, altruism, instillation of hope and identification with others, which help healing to take place in a group context. Rogers’ core conditions and Yalom’s therapeutic group factors have all been evident in the Natural Change Project with one striking difference: the group was consistently widened to include the trees, land, plants and animals in the locations where the work took place.

Creating a crucible for transformation also has a long history in outdoor education programmes which focus on personal and social development, like those offered by organisations such as Outward Bound, Fairbridge, the Venture Trust, and Venture Scotland. These programmes differ from those which emphasise learning the technical skills to travel safely in a variety of outdoor environments. For example, on a technical skills-based kayaking programme you would learn how to control the boat and read the river. But in a developmental programme, you would also focus on what the experience of kayaking the river offers you in learning about yourself, other people and the river itself.

Outdoor activities help participants develop trust, team work and communication skills. They also help to level power dynamics within the group, and instill respect for the larger physical environment. Participants learn how to assess and manage risk, and open up to new experiences that have uncertain outcomes (adventure). Outdoor education brings with it a tradition of acceptance of human frailties, tenacity, solidarity, and a strong sense of empowerment (e.g. Mortlock, 1984 & 2004). These values are essential to the process of Natural Change, and work alongside psychotherapeutic principles to create a culture of acceptance and psychological safety.

---

**THE BOUNDARIES  
AND STRUCTURES  
THAT THE  
FACILITATORS  
OFFER CREATE A  
SAFE CONTAINER  
WITHIN WHICH  
DEEP CHANGES  
CAN TAKE PLACE**

## Ways of Being

Finally, there is a subtle but powerful learning process which can be catalysed by well-facilitated outdoor experiences and therapeutic work. In crude terms this could be seen as role modelling, but this does not do justice to the vitality and delicacy of what can be transacted between facilitator and group.

For both the psychotherapist and the outdoor facilitator, their 'way of being', and their own understanding of their self as part of nature, exemplify and validate the quality of relationship that the project aims to promote. This relational quality - rather than the activities or concepts that form the content of each programme - may well provide the greatest contribution to the change process. For it is well known that the quality of the therapeutic relationship is the strongest predictor of a good outcome in psychotherapy, regardless of the therapeutic techniques used (eg. Lambert, 2001; Karasu, 1986).

For the outdoor facilitator, their way of being may include their comfort outdoors even in hostile weather and environmental conditions, the way they move through different types of terrain, their balance and poise, their speed and responsiveness and their attitude to practical and emotional challenges as they emerge. For the psychotherapist, it may include their comfort with emotional distress, the way they follow the ebb and flow of expression in a group, their capacity to be still and wait, their receptivity to intuition and capacity for empathy.

When facilitator and therapist find their own combined rhythm and form, they create a synergy which strongly supports the group process. This shared way of being is based on personal authenticity and compassionate relationship - and cannot be driven by the ego.



© ALASTAIR MILLOY / WWF

---

**FACILITATING  
THE PROCESS  
REQUIRES  
SENSITIVITY  
AND CARE**

# COMMUNICATIONS

---

Creating stories of transformation is central to the Natural Change Project. The primary medium for recording and publishing participants' stories is the Natural Change blog website

([www.naturalchange.org.uk](http://www.naturalchange.org.uk)). The blogs give participants the chance to share their experiences with friends, work colleagues and families. This generates acknowledgement, empathy and understanding which can support participants when they return to their everyday lives.

The blogs also reach a global audience, alerting a range of people and organisations to the project. During the 2008 programme for example, the website received 7,204 visits and 25,286 page views from 81 countries. Complete statistics for the second programme are not yet available.

The blog is an important part of the psychological process for participants. It provides a place for reflection in words and images and encourages participants to think about the many private and public personas they must inhabit to negotiate their daily responsibilities. Issues of identity have often come into sharp focus through writing blogs and in group discussions about the blogging process.

As their experience has deepened, participants have represented the subtle and complex psychological changes they were going through, not only in conventional prose but also in visual and poetic form. Through photography, film, sculpture, land art, drawing, painting and performance, rich and vibrant narratives have developed.



Natural Change intentionally avoids mass media: this is a departure from more traditional communications strategies. Throughout each programme, a strict confidentiality contract is maintained between everyone in the group. This is vital to the therapeutic process. Nobody speaks publicly of another person's story, or on behalf of the group. Usually, in campaign communications approaches, people's stories and opinions are mediated: they undergo translation and interpretation by a third-party through the way they are edited, selected and positioned in broadcasts or publications. However, uniquely, in Natural Change there is no editorial interference in the reporting of experience. Participants all write directly about whatever they want, in whatever way they feel is most appropriate. Most report that this creative freedom is vital to their own personal process.

On the other side of the communication process is the reader who has open access to the whole website, including all the participants' blogs, without needing to register, pay for a publication, be part of a mailing list, or be a member of an organisation.

The Natural Change communications strategy was created by Jules Weston - a communications professional who has experienced the Natural Change process herself. Jules' experience has brought an empathic understanding of participants as they have negotiated the process of finding their voice in the public domain. This combination of personal insight and professional respect for participants' boundaries is essential to allow authentic stories to emerge.

---

**IN NATURAL  
CHANGE THERE IS  
NO EDITORIAL  
INTERFERENCE IN  
THE REPORTING  
OF EXPERIENCE**



# PSYCHOLOGICAL PERSPECTIVES

Traditionally, in industrial western culture, the self is seen as a separate and distinct entity. The 'skin-bound ego' describes this concept well, as it points to an assumption that 'I' is encapsulated within the physical body and is separate from the rest of nature. Psychologically, the ego is largely preoccupied with building a favourable identity, 'getting on' in the world, or 'getting by' in the face of threat (Washburn,

1995). We could see these preoccupations with competition and threat as providing the fuel for our contemporary unsustainable culture, especially through the mechanisms of consumerism.

As discussed earlier, over the past two decades, mainstream approaches to pro-environmental behaviour change have inadvertently played on the ego's concerns. Tactics that back the ego into a corner by highlighting ecological threat tend to produce a defensive reaction where the ego bolsters itself by consuming more. On the other hand, social marketing techniques that harness the mechanisms of consumerism to promote environmental messages can reinforce the ego's desire to compete with others in the race to be seen to 'do the right thing'.

Recent research (Vansteenkiste, et al, 2006; Crompton 2010) has suggested that deep and lasting change is best catalysed by a shift away from the motivations of the ego, to those which involve a larger, interconnected sense of self. This is congruent with the ecophilosopher, Warwick Fox's (1990) suggestion that a move towards a transpersonal perspective is needed to provide enduring motivation for pro-environmental behaviour. Transpersonal perspectives are those in which *'the sense of identity or self extends beyond (trans) the individual or personal'* to encompass the wider world (Walsh and Vaughan, 1993, p 3; see also Daniels, 2005; Sessions, 1995).

## The Ecological Self

### Legend

- ego:**  
concern extends to personal identity project
- nucleocentric:**  
concern extends to family
- anthropocentric:**  
concern extends to some or all humans
- biocentric:**  
concern extends to some or all forms of life
- ecocentric:**  
concern extends to all forms of life and the ecosystems that maintain them
- ecological Self:**  
sense of Self informed by an ecocentric worldview

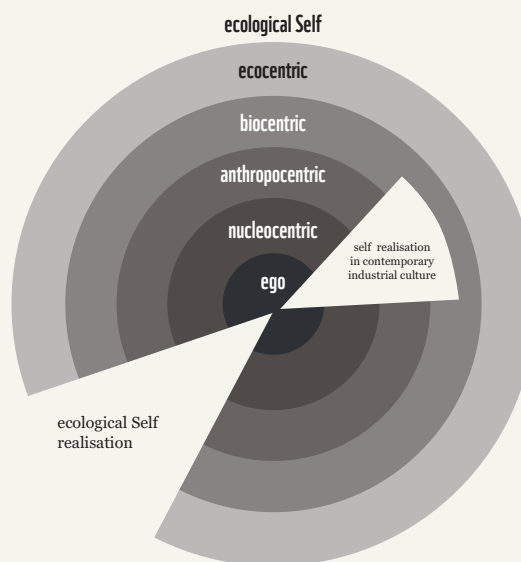


Figure 2: The ecological Self (Key & Prenton, 1998)

The journey through the Natural Change programme can lead from the confined perspective of the skin-bound ego, to a wider sense of self. In this way, it parallels many accounts of spiritual and psychological development (Washburn, 1995; Firman and Gila, 1997; Preece, 2006b; Jung, 1963; Kerr and Key, 2011a). This alone would be worthwhile as a personally healing path. However, that is only a part of the outcome. Crucially, the interconnected sense of self experienced through Natural Change can also lead to an emotional and spiritual shift which motivates leadership and action in service of nature. The model of the 'ecological self' offers a useful framework for understanding how this shift happens.

Our industrial culture is usually based on a small circle of concern that sometimes doesn't extend beyond the nuclear family. The model of the ecological self (Fig. 2) proposes that as humans mature emotionally, they increase their ability to show concern for their wider communities - both human and otherwise. However, this model also shows that the circle of concern can extend to all lifeforms - and beyond - to include the systems and processes upon which they depend. This wider self-realisation leads to a sense of our self as part of the whole planet.

This is the ecological self, and it was first described by the Norwegian philosopher, Arne Næss (1986), as follows:

*"Traditionally, the 'maturity of the self' has been considered to develop through three stages: from ego to social self... and from social self to metaphysical self... But in this conception of the maturity of the self, Nature is largely left out... Therefore, I tentatively introduce, perhaps for the very first time, the concept of the 'ecological Self'. We may be said to be in, and of, Nature from the very beginning of our selves." (p226)*

LEADERSHIP  
INVOLVES  
IDENTIFYING  
THE NEEDS OF  
HUMANS AND  
OF THE REST OF  
NATURE AND  
CATALYSING ACTION  
TO FULFILL  
THOSE NEEDS

The Natural Change programme helps catalyse the shift to an ecological sense of self. It then goes further, to help the two apparent polarities of ego and ecological self become **integrated**. This is represented on the diagram (Fig 2) seen opposite, by the fact that each concentric widening of the circle of concern **contains** all the previous circles. Integrating the ego with the ecological self is especially important at this stage in our history, because we are still locked into a culture that depends on change being driven by powerful egos that influence the world around them.

The model of the ecological self has some fascinating implications for leaders, and those interested in motivating and supporting them. Starting from a definition of leadership as *'the art of identifying a need, and catalysing action to fulfill it'* (McManners, 2011), if the circle of concern only extends to human society, then leadership will only take human needs into account. But if the scope of our concern extends to the whole ecosystem, as it does through the ecological self, then the remit of leadership must expand accordingly. Leadership now involves identifying the needs of humans **and of the rest of nature** and catalysing action to fulfill those needs. Natural Change leadership comes from the powerful agency of an ego in balance with the ecological self. The ego is no longer a leader in the individualistic sense - it is a leader in service to the whole of nature.

Although this idea might appear idealistic in leadership terms, or radical as a psychological perspective to some readers, it is **the only perspective that is ecologically valid**. It is a scientific fact that we **are** part of the planet's ecosystem. We are, in our nature, interconnected.

Footnote: Næss uses a capital 'S' to emphasise a self interconnected with its wider context and to differentiate it from the traditional 'skin bound' ego sense of self.



© SHEILA SMITH / WWF

In Natural Change, the process of transformation starts with personal experience and moves outwards to generate social action. Images of spirals were often used by participants to symbolise change. By Sheila Smith.



# PHILOSOPHICAL PERSPECTIVES

---

One of the central philosophical concepts that influences the Natural Change Project, and which reflects the radical interconnectedness of the ecological self, is that of '*gestalt ontology*' (Næss, 1989). Gestalt ontology suggests that we are constantly part of a complex web of physical and metaphysical relationships. With each moment, the pattern of the web changes, shifting our experience of 'now'. Sometimes the shift is small, sometimes it is dramatic and life changing.

This web's pattern is a gestalt - an arrangement of elements where the whole is greater than the sum of its parts, and each part is greater as a result of the whole. For example, we experience a forest as a rich and complex entity, rather than, say, a 'group of a thousand trees'. And a tree in an ancient forest offers us a different experience from a tree in a city street: the tree is essentially the same, but its context changes our sense of it.











The concept of gestalt ontology finds resonance in some indigenous world-views. For example, for the Saami people of Northern Europe:

*“the direct knowledge gained through shamanistic methods and experiences and through a long-lasting stay in nature makes people conscious of the interrelatedness of animals, stones, and other natural objects and beings. Ecological thinking becomes an important factor in the maintenance of those mutual relationships.” (Kailo, 1998, p15)*

And for the Navajo:

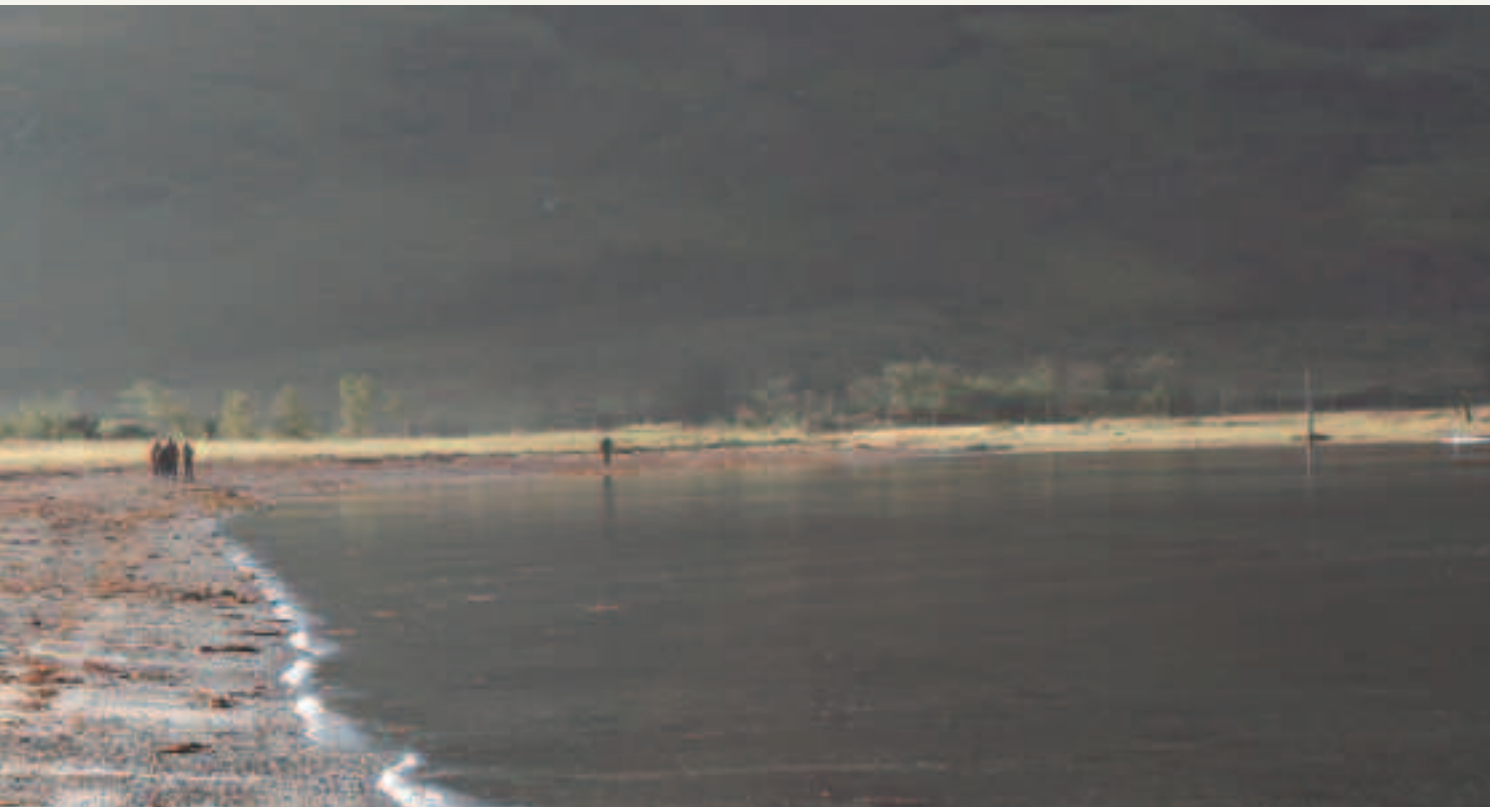
*“...The concept [called Diyin]... relates to a kind of ‘sacred wholeness’ that is believed to be fundamental to human life... Diyin is a dynamic and ongoing process encompassing all things existent in the universe through a pattern of complex interrelationships, and this process constantly changes as the living and natural elements which make it up change...” (Williams, 1997, p 140)*

These perspectives all see the self as a form emerging from a **constantly changing, interconnected** whole. We cannot be separated from our context, any more than a wave can be separated from the sea (Sogyal Rinpoche, 1995). This interdependent, ‘process’ view of self also finds parallels in the Buddhist concept of ‘dependent arising’. His Holiness the Dalai Lama describes this as follows:

---

## INTERDEPENDENCE IS A FUNDAMENTAL LAW OF NATURE

*“interdependence is a fundamental law of nature... many of the smallest insects are social beings who, without any religion, law, or education, survive by mutual cooperation based on an innate recognition of their interconnectedness... All phenomena, from the planet we inhabit to the oceans, clouds, forests, and flowers that surround us, arise in dependence upon subtle patterns of energy. Without their proper interaction, they dissolve and decay.” (Gyatso, 2003, p.6)*



The wild areas where the Natural Change residences take place make it easy for people to experience themselves as part of nature.

It is easy to see how the self is integrated physically with the rest of nature - try holding your breath for half an hour! But what about our **psychological** integration with nature? The positivist 'scientific' approach in western psychology assumes that mind and matter are separate, but other psychologists suggest that the distinction is not that clear cut (for example see Jahn, 2001; Romanyshyn, 2007; Plotkin, 2008) As Gregory Bateson (1972) asks,

*"But what about 'me'? Suppose I am a blind man, and I use a stick. I go tap, tap, tap. Where do I start? Is my mental system bounded at the handle of the stick? Is it bounded by my skin? Does it start halfway up the stick? Does it start at the tip of the stick?" (p231)*

The psychologist Carl Jung (1967) describes his sense of the interconnection between mind and nature beautifully:

*"At times I feel like I am spread out over the landscape and inside things, and am myself living in every tree, in the splashing of the waves, in the clouds and the animals that come and go, in the procession of the seasons." (p252)*

This has resonances with many indigenous perspectives. For example, William Roll (1997) describes the Languna Pueblo concept of the self as:

*"the people and things within the person's circle of psychic interaction, such as family and friends, land and possessions. These are permeated with meaning and memory; they are as mental as they are material." (p64)*

**A PHILOSOPHY  
OF PROFOUND  
INTERCONNECTEDNESS  
INFORMS THE  
NATURAL CHANGE  
PROJECT**

A philosophy of profound interconnectedness informs the Natural Change Project. The wild areas where we work help human beings experience a wider, deeper reality where they can start to experience this interconnectedness directly and unmediated. Being part of that wild pattern changes the sense of self - 'I' as a 'part' becomes different because of the whole.



# CONCLUSIONS

---

Addressing the sustainability challenges we face requires action on many fronts, and changes in policy, practice, technology and the law are all needed. But for any of these changes to occur, influential individuals will need to show leadership. This need for leadership is highlighted in the Low

Carbon Scotland: Public Engagement Strategy (2010), which states that:

*“To support public engagement the Scottish Government will:...*  
**Promote inspirational leaders, good ideas and expertise.**

*We know there are some inspirational people and initiatives around the country who are leading the way. We will enlist those innovators to talk to their peers about what they, too, can do.” (p9)*

While we agree that inspirational leadership is vital to achieve Scotland’s ambitious climate change targets, it is WWF’s view that we cannot rely on chance to provide leaders with a deep commitment to sustainability in the right place at the right time. This report shows that it is possible - and we believe essential - to take a strategic and proactive approach to cultivating leadership and action for sustainability by engaging influential individuals who have the capacity to bring about wider change in their organisations and professional communities.

The Natural Change Project, supported by the research referenced in this report, shows that committed leadership for sustainability is not cultivated solely through knowledge and intellect; it is achieved through a deep engagement with an individual’s values and sense of identity. It is also clear that change cannot be anticipated or demanded. The key is to cultivate individuals’ commitment to sustainability and then to support them as they find their own ways to take forward this agenda within their own organisations and sectors.

Each Natural Change programme is demanding in terms of time, resources and commitment, taking over six months, and requiring specialist facilitation. Rather than looking for an approach which can be delivered to a large number of people, commissioners must focus on identifying suitable participants in **strategic positions**.

Commissioning a project such as Natural Change requires courage on behalf of funders. It requires them to let go of the common practice of seeking specific predefined outcomes. It also asks them to accept that while the changes that participants’ experience may follow an identifiable pattern, the exact nature and pace of these changes cannot be predicted.

While working in this way may challenge common practice, it is clear that this approach creates a deep commitment to leadership for sustainability that continues to manifest as action long after the six month programme has ended. Two years on from the official ‘end’ of the 2008 programme, the participants have continued to engage actively with the project, in their own time and using their own resources.

The case studies included in this report show how participants’ engagement with the project has led to action that both contributes to the achievement of Scotland’s climate change emissions reduction targets and to other important agendas in Scotland such as Curriculum for Excellence. It is planned to augment the data gathered from the case studies with a longitudinal study, to investigate participants’ involvement in action and leadership for sustainability after they have completed the Natural Change programme.

---

**COMMITTED  
LEADERSHIP FOR  
SUSTAINABILITY IS  
NOT CULTIVATED  
SOLELY THROUGH  
KNOWLEDGE AND  
INTELLECT;  
IT IS ACHIEVED  
THROUGH A DEEP  
ENGAGEMENT WITH  
AN INDIVIDUAL’S  
VALUES AND SENSE  
OF IDENTITY**



Many interconnected factors influence our personal and social behaviour. How we respond to these is often down to the influence of those in leadership positions. The Natural Change Project provides a new approach to influencing sustainable behaviours by cultivating leadership for sustainability.

# RECOMMENDATIONS

---

The Natural Change Project provides a new and powerful approach to cultivating leadership for sustainability. We make the following recommendations on how this approach can support the delivery of government priorities such as Curriculum for Excellence and Scotland's ambitious climate change targets.

## Recommendations for the Scottish Government Climate Change Team:

Findings from the Natural Change Project should be used by the Scottish Government to support *The Low Carbon Scotland: Public Engagement Strategy* (Scottish Government, 2010) by:

- incorporating insights from the project into the Climate Change Behaviours Research Programme and using them to inform future engagement activities;
- adding the Natural Change approach to the Scottish Government's list of engagement strategies;
- using Natural Change style programmes to strategically engage influential individuals drawn from the sectors identified in the Public Engagement Strategy;
- integrating the communications strategy used in the project into public engagement communications and marketing programme design;
- diversifying existing approaches to communications to include those that explore sustainability through personal experiences and values;
- capitalising on the professional networks of influential individuals in targeted sectors.



© LOUISE MACDONALD / WWF

In many discussions of social and environmental problems, a deep understanding of the relationships between people and the rest of nature is absent. Developing this understanding is at the heart of the Natural Change programme.



### **Recommendations for the Scottish Government Teams responsible for delivering Curriculum for Excellence and for implementing the recommendations made in *Teaching Scotland's Future* (Scottish Government, 2011):**

The Natural Change Project has provided participants with unique insights into how approaches that work with values and identity can support innovation, professional learning and improvement in the education system. To develop and apply these insights we would recommend that Natural Change participants with expertise in education are invited to:

- contribute to the work of the Teaching Scotland's Future National Partnership Group and its supporting working groups;
- work in collaboration with Education Scotland to develop and promote high quality professional learning and leadership - and to share successful approaches.

### **Recommendations for government, agencies and organisations interested in catalysing and supporting leadership for sustainable development:**

#### **PROGRAMME DESIGN**

Sustainability leadership programmes should be designed using the following principles:

- long-term, systemic approaches with psychological depth should be favoured over short-term, linear 'carrot and stick' methods;
- leadership and action are intrinsically linked to identity, values and beliefs; this understanding should underpin any programme;
- emphasis should shift from tangible contents (e.g. activities, materials and technology) to intangible processes (e.g. experiences, creativity and relationships);
- programmes should provide engagement at personal, cultural and structural levels simultaneously;
- multiple measures of success, which include qualitative psychological and social measures, should be used;
- programmes should focus on engaging specific influential individuals with the authority and capacity to bring about wider change.

#### **PROGRAMME CONTENT**

Sustainability leadership programmes should be based on the following key elements:

- change processes based on transpersonal psychology, which acknowledges that the sense of self can extend beyond the individual;
- opportunities for people to share their emotional responses to challenging sustainability issues in psychologically safe and professionally facilitated situations;
- opportunities that help people become aware of, and able to challenge, the basic assumptions of our industrial culture.

#### **STRATEGIC CONSIDERATIONS**

The approach to sustainability leadership programmes outlined in this report is very different from the majority of leadership training, and capacity building for facilitators will be needed if this approach is to be used more widely:

- support should be given to facilitator training to build capacity in using the type of approaches used in the Natural Change Project.

## APPENDIX A: THE PROJECT TEAM



*Jules Weston  
project manager*

The Natural Change Project was managed by Jules Weston, formerly WWF Scotland Communications Manager. She was also responsible for the communications design and strategy of the project. Jules originally worked as a TV producer, and then a countryside ranger on the West coast of Scotland, before taking up her position at WWF. She is now an independent consultant whilst undertaking an MA in Anthrozoology.



*Dave Key  
programme designer  
& facilitator*

The core programme was designed by David Key, an outdoor educator and ecopsychologist who developed a model for working with outdoor experiences to encourage people to live more sustainably. David has been applying this model to various projects in one form or another for over 15 years and it was the subject of his MSc research thesis (Key, 2003). He holds National Governing Body awards in outdoor leadership internationally, and is professionally insured as an outdoor activity provider. David facilitated all elements of the programme with Margaret Kerr.

Margaret is an integrative psychotherapist and contributed to the evolution of the programme by bringing psychological depth to the Natural Change process. She has developed a rich set of peer supervision practices to help the facilitators support the group (Kerr & Key, 2011b). Before becoming a psychotherapist, Margaret worked as a medical doctor. She holds a BA (Hons) in Psychology, an MSc in Psychological Research Methods, and a postgraduate diploma in Transpersonal Psychology. She is registered with the UKCP, BABCP and BACP and is professionally insured as a psychotherapist.

During the first programme the kitchen was managed by Amie Fulton and in the second by Rob McKenna.



*Margaret Kerr  
psychotherapist  
& facilitator*

## APPENDIX B: PROJECT PARTICIPANTS

### 2008 Programme

**Sam Harrison**, Participant Researcher  
**Emma Little**, Learning & Development Officer, NHS Health Scotland  
**Louise Macdonald**, Chief Executive, Young Scot  
**Gavin McLellan**, Head of Christian Aid Scotland  
**Sarah Munro**, Artistic Manager, Glasgow Tramway Theatre  
**Emily Peel Yates**, Senior Landscape Architect, Halcrow  
**Roseleen Shanley**, Principal Teacher, Bucksburn Academy  
**Gurjit Singh**, President, National Union of Students Scotland

### 2010 Programme

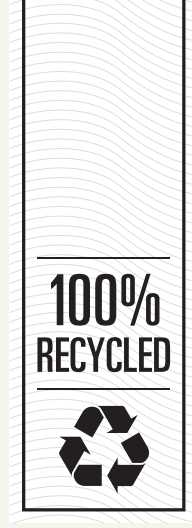
**Debbie Adams**, Director of Organisational Development, Children 1st  
**Eric Burton**, Education Officer, 16+ Choices & Enterprise, West Lothian Council  
**Ken Cunningham**, General Secretary, School Leaders Scotland  
**John Daffurn**, Professional Officer, East Renfrewshire Council  
**Valerie Drew**, Lecturer in Professional Education, University of Stirling  
**Paula Evans**, Policy Manager, COSLA  
**Alastair Milloy**, Vice Principal Corporate Development, James Watt College  
**Rosa Murray**, Professional Officer (CPD/Chartered Teacher),  
The General Teaching Council for Scotland  
**Deborah Richardson-Webb**, Head of Performance Pedagogy,  
The Royal Academy of Music & Drama  
**Sheila Smith**, Continuing Professional Development Officer, West Lothian Council  
**Gill Troup**, Depute Principal and Vice Principal, University of the West of Scotland  
**Morag Watson**, Education Policy Officer, WWF Scotland

# REFERENCES

- Bateson, G. (1972). *Steps to an Ecology of Mind: Collected Essays in Anthropology, Psychiatry, Evolution and Epistemology*. Jason Aronson Inc: Northvale, New Jersey & London.
- Beisser, A. (1970). *The paradoxical theory of change*. Originally published in Fagan and Shepherd (Ed.), *Gestalt therapy now*. Harper Colophon, New York.
- Braun, V. and Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3, 77-101.
- Buechner, F. (1993). *Wishful thinking: a seeker's ABC*. Harper, San Francisco.
- Buzzell, L. & Chalquist, C. (Eds) (2009). *Ecotherapy: Healing with nature in mind*. Sierra Club, San Francisco.
- Crompton, T. (2008). *Weathercocks & signposts: The environment movement at a crossroads*. WWF UK, Surrey.
- Crompton, T. (2010). *Common cause: The case for working with our cultural values*. WWF UK, Surrey.
- Crompton, T. and Kasser, T. (2009). Meeting environmental challenges: the role of human identity. WWF UK, Surrey.
- Cushman, P. (1990). Why the self is empty. Toward a historically situated psychology. *American Psychologist*, 45(5), 599-611.
- Daniels, M. (2005). *Shadow, self, spirit: Essays in transpersonal psychology*. Imprint Academic, Exeter.
- Department of Education and Life-long Learning (2011) *Teaching Scotland's Future - Report of a review of teacher education in Scotland*. Scottish Government: Edinburgh. <http://www.scotland.gov.uk/Publications/2011/01/13092132/0> (Accessed 27/06/11).
- Eliade, M. (1964). *Shamanism: Archaic techniques of ecstasy*. Bollingen Foundation; distributed by Pantheon Books: New York.
- Ekins, P. (ed.) and Max-Neef, M. (1992) *Real-life economics: Understanding wealth creation*. Routledge, London.
- Firman, J. and Gila, A. (1997). *The primal wound*. SUNY press, Albany.
- Foster, S. & Little, M. (1988). *Book of the vision quest: Personal transformation in the Wilderness*. Prentice Hall, New York.
- Fox, W. (1990). *Toward a transpersonal ecology: Developing new foundations for environmentalism*. Shambhala, Boston and London.
- Freire, P. (1996). *Pedagogy of the oppressed*. Penguin Books, Harmondsworth.
- Freud, S. (1936). *The ego and the mechanisms of defense*. Hogarth Press, New York.
- Fromm, E. (1956) *The art of loving*. Harper Collins, New York.
- Gendlin, E. (1978). *Focusing*. Everest House, New York.
- Gray, A. (1994). *An introduction to the therapeutic frame*. Routledge, New York.
- Gyatso, Tenzin, *The 14th Dalai Lama* (2003). *The compassionate life. Wisdom, Somerville.*
- Heron, J (1989). *The facilitators' handbook*. Kogan Page, London.
- Homburg, A., Solberg, A., and Wagner, W. (2007). Coping with global environmental problems: Development and first validation of scales. *Environment and Behaviour*, 39, 754-778.
- Jahn, R.G. (2001). The challenge of consciousness. *Journal of Scientific Exploration*, 15(4), 443-457.
- Jung, C.G. (1963). *Memories, dreams, reflections*. Collins and Routledge & Kegan Paul, London.
- Kabat Zinn, J. (1991). *Full catastrophe living: Using the wisdom of your body and mind to face stress, pain, and illness, using mindfulness meditation*. Doubleday Dell Publishing Group, New York.
- Kailo, K. (1998). Nomadic circle of life. *ReVision*, 21(1), 14-23.
- Kanner, A.D. & Gomes, M.E. (1995). The all-consuming self in Roszak et al (Eds) *Ecopsychology: Restoring the earth, healing the mind*. Sierra Club Books, San Francisco.
- Karasu T.B. (1986). The specificity versus nonspecificity dilemma: Toward identifying therapeutic change agents. *American Journal of Psychiatry*, 143(6), 687-695.
- Kerr, M.H. & Key, D.H. (2011a). The ecology of the unconscious. Accepted for publication in *Vital Signs* Totton, N. and Rust, M.J. (eds) (2011). Karnac Books, London.
- Kerr, M.H. & Key, D.H. (2011b). The Ouroboros: Towards an ontology of connectedness in ecopsychology research. Accepted for publication in the *European Journal of Ecopsychology*.
- Key, D.H. (2003) *The ecology of adventure*. Unpublished MSc thesis, Centre for Human Ecology, Edinburgh.
- <http://www.ecoself.net/blog/wp-content/uploads/2010/07/TheEcologyofAdventure.pdf> (Accessed 27/06/11)
- Key, D.H. & Prenton E.H. (1998) *Model of the ecological self*. Unpublished teaching material.
- Kolb, D.A., (1984). *Experiential learning: Experience as the source of learning and development*. Prentice-Hall, Englewood Cliffs, N.J.
- Lakoff, G (2006). *Thinking points: Communicating our American Values and Vision*. Farrar, Straus and Giroux, New York.
- Lambert, M.J. Barley, D.E. (2001). Research summary on the therapeutic relationship and psychotherapy outcome. *Psychotherapy: Theory, Research, Practice, Training*, 38(4), 357-361
- Lazarus, R.S. (1991). *Emotion and adaptation*. Oxford University Press, Oxford.
- Macdonald, L. (2011). *Natural Change participant, 2008*. Personal communication.
- Macy, J. Brown, M. (1999). *Coming back to life: Practices to reconnect our lives*. World New Society Publishers, Canada.
- Maslow, A. H. (1943). A theory of human motivation. *Psychological Review*, 50(4), 370-396.
- McManners, J. (2011). Personal communication.
- McNiff, S. (1998). *Trust the process. An artist's guide to letting go*. Shambhala, Boston.
- Miell, D. (1996). *Social interactions and personal relationships*. Sage, London.
- Mortlock, C., (1984). *The adventure alternative*. Cicerone, Cumbria, UK.
- Mortlock, C., (2001). *Beyond adventure*. Cicerone Press, Cumbria, UK.
- Næss, A. (1989). *Ecosophy and gestalt ontology*. *The Trumpeter*, 6 (4), 134-137
- Næss, A. (1986). *Self-realisation: An ecological approach to being in the world*, in Sessions et al (Eds.) (1995) *Ecopsychology: Restoring the earth, healing the mind*. Sierra Club, San Francisco.
- Plotkin, B. (2008). *Nature and the human soul: Cultivating wholeness and community in a fragmented world*. New World Library, California.
- Preece, R. (2006a). *The psychology of Buddhist Tantra*. Snow Lion, Ithaca.
- Preece, R. (2006b). *The wisdom of imperfection: The challenge of individuation in Buddhist life*. Snow Lion, Ithaca.
- Senge P. M., Jaworski, J., Scharmer, C. O. & Flowers, B. S. (2005) *Presence: Exploring profound change in people, organizations and society*. Nicholas Brealey Publishing, Boston.
- Priest, S. & Gass, M. (1997). *Effective Leadership in Adventure Programming*. Human Kinetics: University of New Hampshire.
- Rogers, C.R. (1980). *A way of being*. Houghton Mifflin, New York.
- Roll, W.G. (1997). *My search for the soul*. In *Body, mind, spirit: Exploring the parapsychology of spirituality*. Hampton Roads, Charlottesville.
- Romanshyn, R.D. (2007). *The Wounded researcher: Research with soul in mind*. Spring Journal Books, Louisiana.
- Roosevelt, T. (1916). *A book-lover's holidays in the open*. Charles Scribner's & Sons, New York.
- Roszak, T., Gomes, M.E. & Kanner, A.D. (Eds) (1995). *Ecopsychology: Restoring the earth, healing the mind*. Sierra Club, San Francisco.
- Scottish Government (2009) *The Climate Change (Scotland) Act*. Department for Environment & Climate Change: Edinburgh.
- <http://www.scotland.gov.uk/Topics/Environment/climatechange/scotland-action/climatechangeact> (Accessed 27/06/11).
- Scottish Government (2010) *Low Carbon Scotland: Public Engagement Strategy*. Department for Environment & Climate Change: Edinburgh.
- <http://www.scotland.gov.uk/Publications/2010/12/23134226/0> (Accessed 27/06/11).
- Seed, J., Macy, J., Fleming, P. and Naess, A., (1998). *Thinking like a mountain: Towards a council of all beings*. New Society Publishers, Canada.
- Sessions, G., (1995). *Deep ecology for the twenty-first century*. Random House, Boston.
- Shanley, R. (2011) *Natural Change participant, 2008*. Personal communication.
- Sogyal Rinpoche (1995). *Glimpse after glimpse*. Rider, London.
- Stevens, R. (1995). *Understanding the self*. Sage, London.
- Stewart, I., Joines, V., (1987). *TA Today: A new introduction to Transactional Analysis*. Lifespace Publishing, Nottingham.
- Totton, N. (2010). Boundaries and boundlessness. *Therapy Today*, October, 11 - 15.
- Vansteenkiste, M., Lens, W. and Deci, E.L. (2006). Intrinsic versus extrinsic goal contents in self-determination theory: Another look at the quality of academic motivation. *Educational Psychologist* 41 (1) 19-31.
- Walsh, R. and Vaughan, F. (Eds) (1993). *Paths beyond ego, the transpersonal vision*. Tarcher / Putnam, New York.
- Washburn, M. (1995). *The ego and the dynamic ground*. SUNY Press, Albany
- Wetherell, M. (1996). *Identities, groups and social issues*. Sage, London
- Wetherell, M. (2001). *Discourse theory and practice: A reader*. Sage, London
- Williams, B.J. (1997). Pueblo parapsychology: Psi and the longbody from the South West Indian perspective. *Australian Journal of Parapsychology*, 7(2), 134-163.
- WWF (2009) *Natural change - psychology and sustainability*. <http://www.naturalchange.org.uk/natural-change-report/> (Accessed 27/06/11)
- WWF (2010) *The Ecology of Experience: Six months on from the Natural Change Project*. <http://www.naturalchange.org.uk/natural-change-report/> (Accessed 27/06/11)
- Yalom, I.D. (1970). *The theory and practice of group psychotherapy*. Basic Books, New York
- Zeidner, M. & Endler, N.S. (Eds.) (1996). *Handbook of coping: Theory, research, applications*. John Wiley & Sons, New York.



# The Natural Change Project in numbers



80%

The percentage cut Scotland must make in its climate change emissions by 2050

8

key sectors identified within our society where leadership and action are needed



18

Recommendations made on how the Natural Change Project can contribute to achieving these goals

81

The Natural Change Project has attracted interest from 81 different countries.

AMAZON BEAR STENCIL © LOUISE CLEMENTS/WWF

COVER IMAGE © JAYKAY57 / ISTOCKPHOTO.COM

SCO

WWFSCOTLAND.ORG.UK/NATURALCHANGE



**Why we are here**

To stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature.

Download WWF's Natural Change Report 2011 at [wwfscotland.org.uk/naturalchange](http://wwfscotland.org.uk/naturalchange)

WWF-UK, 2011, registered charity number 1081247 and registered in Scotland number SC039593. A company limited by guarantee number 4016725 © 1986 Panda symbol and © 'WWF' Registered Trademark of WWF-World Wide Fund for Nature (formerly World Wildlife Fund). WWF Scotland, Little Dunkeld, Dunkeld, Perthshire, PH8 0AD T: 01350 728200