

The Government's 25 Year Environmental Plan (25YEP) includes a nature for wellbeing programme, yet nature's wellbeing is in crisis with 60% of animals dying out since 1970 according to the World Wildlife Foundation's Living Planet Report. This decline threatens human civilisation with the United Nations biodiversity chief warning that "humanity could be the first species to document our own extinction". One way to deepen the crisis in human wellbeing is an unhealthy planet and we're currently heading to a permanently unhealthy world.

Ergonomics is concerned with wellbeing. An object stated in the CIEHF's Royal Charter refers to the promotion of wellbeing. Yet, ergonomics cannot achieve its aim for human wellbeing without nature's wellbeing. Clearly, we need a new relationship with nature. Ergonomics is all about relationships, between people and the things they do. So, how can ergonomics inform Human Nature Interactions (HNIs) to help improve people's relationship with (the rest of) nature: their nature connectedness?

Nature connectedness is a psychological construct that captures the strength of a person's emotional relationship with nature and the degree to which they feel part of nature. Recently, when we asked 5000 people, most weren't confident that they were part of nature, but feeling part of nature is important for wellbeing and pro-nature behaviours. Indeed, emerging evidence suggests nature connectedness is more important for wellbeing than visiting nature. For this reason, there's been a surge of interest in people's connection to nature; from major conservation organisations, to the Government in the 25YEP and internationally with the *Nature For All* publication launched at the UN's Biodiversity Conference in Egypt.

I formed the Nature Connectedness Research Group at the University of Derby in 2013. Our work looks to understand and develop interventions to improve people's nature connection because it's good for both human and nature's wellbeing. Our work has recently been named as one of the 100 best research breakthroughs by Universities UK.

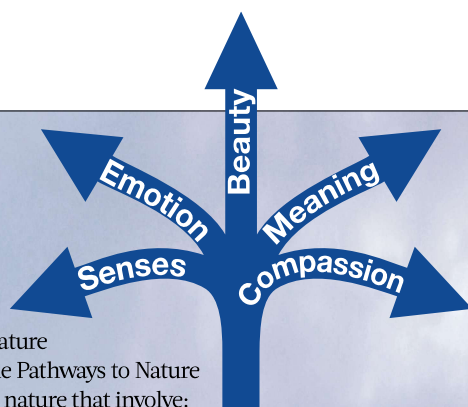
Central to the work has been the development of a framework

Designing human nature interactions

The wellbeing of people and nature is in crisis, but ergonomics has a role to play, says **Miles Richardson**, in promotion of a new relationship with nature



that can be used to design HNIs, that is, types of activity that help improve nature connectedness. These are the Pathways to Nature Connectedness, activities in nature that involve:



With the massive decline in wildlife and change in climate, it's clear that the current human relationship with nature has failed. There's an urgent need for a new relationship, yet much engagement still promotes nature as a resource, conquering challenges in nature and nature as facts and figures. What type of sustainable relationship is based on facts and figures?

We've been helping several organisations apply the five pathways to nature connectedness to various HNIs. In 2018, the National Trust adopted the pathways as a framework they could apply to the design of visitor programmes in order to foster a closer relationship with nature for both human and nature's wellbeing. In a fascinating year, I've been working closely with the National Trust to help roll out the pathways across various parts of the organisation.

Designing a great visitor experience

The first step in the work with the National Trust was an internal report introducing the evidence of the benefits of nature connectedness, and then the pathways that can be used to achieve it. Then a series of workshops with the people who develop and manage the visitor experience took place. These introduced the pathways and applied them to design scenarios.

The high level of thought that goes into designing a great visitor experience soon became apparent and the pathways were swiftly integrated into thinking. The feedback has been overwhelmingly positive about how the pathways can help tweak existing activities or inspire new ideas. Taking the focus away from knowledge and identification, although challenging for some, has been widely embraced. Feedback on the pathways as a design tool was that it was simple and accessible, yet wide reaching, allowing sophisticated interpretation and the opportunity to move beyond science, giving people a 'license to talk about emotions'.

One specific part of the work with the National Trust was a

refresh of their '50 things to do before you're 11¾' campaign. During an early design session, it was great to see a blank wall quickly become covered with potential activities to engage children with nature. Some new, some adapted, some set free after talking through the pathways.

The pathways prompted simple revisions, for example, 'Climb a tree' became 'Get to know a tree'. Our wider research shows trees mean a great deal to people. Trees are remarkable places and favourite features of the landscape. Trees can be touched, smelt and heard. They provide exhilaration and shelter. They provide a home for wildlife. Trees can foster many types of relationship and be used to operationalise multiple pathways to nature connectedness. So, children can still climb but they're also encouraged to get to know a tree, hoping they become steadfast companions and meaningful places, be that beneath, within or atop a tree.

Other activities have also been re-framed and adjusted. For example, 'Canoe down a river' became simply 'Float in a boat', prompting less purposeful time to take a moment with the senses. The simple change from 'Go bird watching' to 'Watch a bird', takes the emphasis away from traditional identification to enjoying the day-to-day lives of birds, simply watching them fly, listening to them sing and noticing their beauty. The wider guidance around each activity also reflects the pathways approach, bringing them to life through artistic activities, for example.

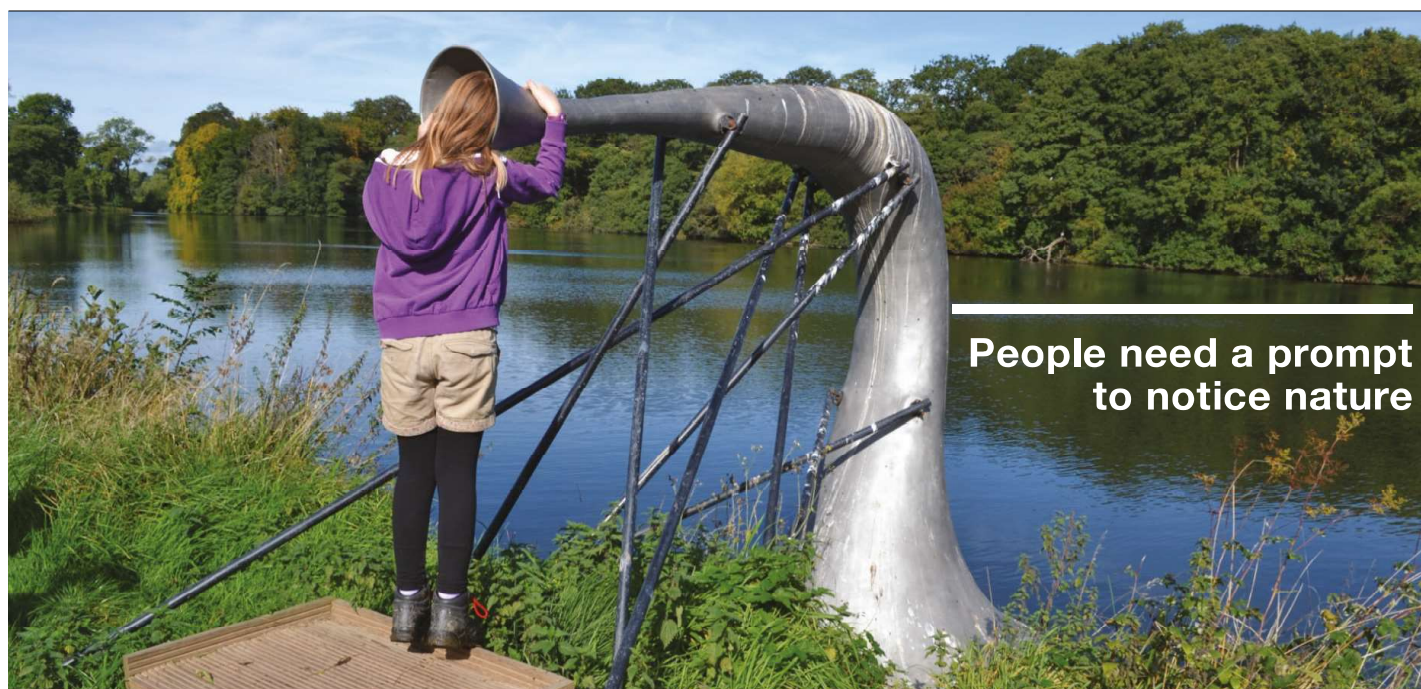
It's not just about children. Our research has found that people need a prompt to notice nature and we've used that ever-present companion, the smartphone. We designed an app that knows where urban green spaces are and prompts people to notice the good things in nature by writing them down and sharing on social media. Using the app for seven days led to increased nature connectedness and clinically significant improvements in mental health. The locations of users' interactions with nature were also recorded along with ratings of those places for positive emotions and biodiversity.

The good things in nature

The data from users of the app provides valuable insight into how people interact with green spaces. For example, which types of green spaces bring the most benefit, which provide



How can ergonomics help improve people's nature connectedness?



People need a prompt to notice nature

guidance on designing urban green spaces. The good things people notice in nature have also been combined with the pathways to produce a matrix of micro-activities for nature connection and wellbeing.

When considering the design of urban environments and green spaces, we're producing recommendations on how places can afford a connection to nature, using design to prompt people to engage with nature in ways suggested by the pathways. This use of design to influence choices is also related to concepts such as 'nudge' and 'design thinking' where we use design to tackle social and behavioural issues.

Art installations can also be used to create these 'habitats for connection'. For example, 'Skyspace' by James Turrell at Tremenhere Sculpture Gardens in Cornwall influences behaviour through design by having seating that obliges the user to look-up, towards a void in the ceiling that brings attention to, and frames, the sky. A lower budget alternative to Skyspace, is Sky Glade at Rievaulx Terrace, a National Trust installation using sycamore pillars standing at an angle in woodland to encourage passers-by to pause, repose, and look upwards towards the canopy.

Five ways to wellbeing

Wider guidance on wellbeing can also be adapted by the pathways to nature connectedness. The New Economics Foundation Five Ways to Wellbeing from 2008, provides straightforward and popular guidance on the steps we can take towards human wellbeing. The five pathways to wellbeing are based on an evidence report that, in 317 pages, includes no specific nature-based solutions. There are just two sentences noting that access to green space contributes to wellbeing. Similarly, guidance on the Five Ways to Wellbeing from the NHS and Mind overlooks nature; we seem to be transfixed by ourselves, but not the natural world that sustains us.

This situation is no surprise as, despite increasing recognition of the health and wellbeing benefits we get from nature and a connection to it, nature is not apparent in our everyday lives;

● Using an art installation to prompt people to pause and listen to nature

cultural references to nature are in decline, models of workplace wellbeing and models of health overlook nature.

Recently, a 'One Health' model in British Medical Journal *Global Health* recognises that humans are embedded within the rest of the natural world, that the fundamental pathway to wellbeing is a healthy planet. Key guidance on wellbeing such as the Five Ways to Wellbeing should recognise this. Ten years on it's time for an update that reflects the latest evidence and a 'one health' perspective. A simple way to do this is to combine the Five Ways to Wellbeing with the five pathways to nature connection to arrive at 5 Ways to Natural Wellbeing:

- **Connect:** social relationships are important for wellbeing so be with and talk to people about anything, about what nature means to you.
- **Take notice:** be aware of the world around you, savour the moment, notice nature's beauty.
- **Give:** take part in community life, do something for a friend, do something for nature.
- **Be active:** walk or cycle when you can, to green spaces to connect with others, to notice, to give and learn.
- **Learn:** try something new, rediscover your childhood wonder for nature, learn that people are part of the wider natural world and nature matters for human health.

There's plenty of scope to include the benefits of nature, and a connection to it, within the pathways to wellbeing because it's easy, because nature needs to be in our health, and in every decision we make, as ultimately there's no wellbeing without nature's wellbeing. ●



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Further reading

Nature Connectedness Research Blog, on the web: <https://findingnature.org.uk>, on Twitter: @findingnature