

The Mountain Body, 2021

Video

Courtesy of the artist

The work is part of an interdisciplinary research that the Norwegian artist has been developing for several years. In *The Mountain Body*, Helle Siljeholm explores the complex interaction between human and non-human bodies, adopting the mountain scenery as the privileged setting for a narrative based on the concepts of care, interspecies relations and the connection between all worlds – animal, geological, plant and human – between the known and the unknown, the visible and the invisible.

The project is inspired by the notion of the mountain of the late mountaineer and philosopher Arne Næss and by his many journeys to mountainous areas, which contributed to the idea expressed by him and his colleagues in the 1970s: Deep Ecology. This philosophy advocates a complete transformation in the way humans interact with nature and culture.

For *Connecting Worlds 2024*, the artist presents a video that stems from a choreography performed by contemporary climbers and dancers in Norangsdalen, Norway, during the Høstscena performing arts festival in 2021. The movements of the bodies in contact with the mountain are slow and sinuous, as if in search of a resonant relationship with the geological mass.

Their passage leaves a mark, an ochre trace that is a reference to the first pigment used by human beings. The gesture is the outcome of an encounter between the very small and the very large, representing a process of mutual creation and impact.

The resulting feeling is that of an ancestral, primordial and essential connection with the mountain.

Mountains' Healing Touch

There are numerous studies testifying how human exposure to natural elements can beneficially impact the biological and psychological levels of human beings.

Among these, several studies indicate that touching the wood or leaves of a tree can indirectly stimulate the parasympathetic nervous system and produce a vagotonic action, with a measurable anti-stress impact.

Although scientific research in this sphere is limited, the works found in literature concur in detecting several benefits in response to the tactile stimuli procured by wood, especially in comparison with artificial materials.^{1, 2}

A pioneering study on the effects of tactile stimulation on human physiology showed significant variations in blood pressure and heart rate after contact with steel and other materials (variations not detected with wood).³ A subsequent study confirmed wood's neutral effect compared to artificial materials, even when the surfaces to be touched were warmed up: contact with aluminium or plastic increased blood pressure, although this increase was inhibited if the materials were warmed up; however, blood pressure did not change in response to contact with wooden objects, even without being warmed up.⁴

More recently, it was demonstrated that touching the wood of certain arboreal species (e.g. Japanese cypress) with the palm of the hand or the sole of the foot prompts effects on brain activity (detected via the concentration of oxyhaemoglobin in the pre-frontal cortex) and on autonomic nervous system activity (measured via heart rate variability or HRV), contrary to what occurs when touching marble.⁵

In studies exploring the effects of the presence of wooden objects in controlled environments, the stimuli produced by

tactile and olfactory components combine and so it is hard to isolate the contribution made by a single stimulus. The presence of wood (accessible to touch, such as wooden panels, furnishings etc.) usually incurs a concurrent olfactory stimulation produced by the volatile organic compounds released by the wood into the air.⁶

Studies conducted in controlled environments can easily be transferred to forest environments: touching the wood of trees with the hands and potentially the chance to step on ground covered with leaves and roots with bare feet can be considered functional in relation to the health benefits produced by immersion in a forest.

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- 1 Bhatta, S. R., Tiippana, K., Vahtikari, K., Hughes, M., & Kytä, M. (2017). "Sensory and emotional perception of wooden surfaces through fingertip touch". *Frontiers in Psychology*, 8, 367. <https://doi.org/10.3389/fpsyg.2017.00367>.
- 2 Ikei, H., Song, C., & Miyazaki, Y. (2017). "Physiological effects of touching coated wood". *International Journal of Environmental Research and Public Health*, 14(7), 773. <https://doi.org/10.3390/ijerph14070773>.
- 3 Morikawa T, Miyazaki Y, Kobayashi S (1998) "Time-series variations of blood pressure due to contact with wood". *Journal of Wood Science* 44:495-497.
- 4 Sakuragawa S, Kaneko T, Miyazaki Y (2008) "Effects of contact with wood on blood pressure and subjective evaluation". *Journal of Wood Science* 54:107-113 <https://doi.org/10.1007/s10086-007-0915-7>.
- 5 Ikei, H., Song, C., & Miyazaki, Y. (2017). "Physiological effects of touching wood". *International Journal of Environmental Research and Public Health*, 14(7), 801. <https://doi.org/10.3390/ijerph14070801>.
- 6 Ikei, H., Song, C., & Miyazaki, Y. (2018). "Physiological effects of touching hinoki cypress (*Chamaecyparis obtusa*)". *Journal of Wood Science*, 64(3), 226-236. <https://doi.org/10.1007/s10086-017-1691-7>.



PARCO FLUVIALE
GESSO E STURA:
ESPERIENZA
DI NATURA



Parco fluviale
Gesso e Stura

The correlation between well-being and nature is not a mere suggestion. The cross-border study on the physical and psychological benefits of walking barefoot carried out as part of the Alcotra Sens'Action project has proven this scientifically.

The Centro SUIISM and the Department of Medical Sciences of the University of Turin measured and evaluated the effectiveness of a barefoot exercise programme in the natural environment, specifically in the f'Orma sensory trail in the Parco fluviale Gesso e Stura on a group of 40 people aged over 65. They examined physical variables (bipodal/ monopodal balance, lower limb strength, mobility, hand strength, cardiorespiratory fitness

and amount of physical activity performed) as well as psychosocial and general functionality variables (multidimensional frailty, perception of mental well-being, anxiety and negative mood, social relationships, quality of life). The data collected after 16 lessons conducted by a kinesiologist showed an improvement in most of the motor tests with high levels of satisfaction. Meanwhile, a psychological survey conducted by the Department of Psychology of the University of Turin on a sample of 249 adults recorded positive effects on psychological well-being and stress relief, mood improvements, emotional regulation and social well-being, with stronger relationships between individuals.