

*There have always been things too vast and too human to name:
like the reason for love and the logic of climbing mountains, 2024*
Sound Installation
Courtesy of the artist

The work stems from an interest in listening to the electromagnetic fields that surround us. Firstly, the electromagnetism emitted by the sun's rays that reach the Earth, but also the one generated by our heart, or by the various electronic devices we use every day. To produce this work, Caterina Gobbi recorded, and subsequently re-elaborated, a series of electromagnetic forces coming from instruments that transport or transform solar energy, such as photovoltaic panels, electric poles and pylons.

The audio track is transmitted by two loudspeakers removed from their resonance boxes, coupled with granite boulders from the Alps and raised on metal scaffolding.

The auditory intervention is presented in dialogue with a textile element created using cyanotype, an old photographic printing technique developed in the late 19th century, achievable through the reaction of two iron salts exposed to sunlight. The image imprinted on the fabric, an abstract pattern reminiscent of a starry night or a magnified view of tiny elements, is in fact the mark left by small geological fragments such as sand and pebbles irradiated by the energy of the Sun.

Caterina Gobbi's creation immerses the audience in a compelling visual and auditory experience. Placed at the centre of the *Connecting Worlds 2024* exhibition, the work is intended as a real "shock". The non-visible aspect of electromagnetic waves and the reference to solar power are in fact the pretext to force the viewer's gaze through a symbolic short circuit involving force, energy and movement, going beyond the current critical situation.

Safeguarding Soundscapes

The human sense of hearing is one of the principal mediators of the beneficial effects produced by forest immersion. This is arguably further confirmation of the "biophilia" hypothesis¹ whereby the natural environment in which *Homo sapiens* lived for much of our evolutionary history, requires the least effort to focus, thus allowing thoughts to flow and a return to ourselves. Natural sounds are capable of alleviating stress, anxiety and agitation, affecting the parasympathetic activity of the nervous system, as demonstrated also by an improvement in a number of physiological indicators, such as the level of skin conductance, and heart rate frequency and variability.² The sound of wind through leaves, birdsong and particularly running water have the power to induce relaxation and well-being, especially if not "sullied" by artificial noise, whether of a busy street or a chainsaw. Indeed, in the case of sound stimuli, "environmental coherence" is very important: namely the absence of disturbing "out of context" factors and, on the contrary, the presence of expected elements in a forest area (for example, watercourses in mountain zones; uncontaminated forest sounds; natural or re-naturalised forest structures, and so on).

The importance of the sound component in contributing to the effects of recovery linked to visiting natural environments has only been recognised in recent times, partly because many studies traditionally focused on the visual component. Recent evidence demonstrates that, in laboratory situations in which sensorial (visual and auditory) input was isolated, the auditory stimuli were even more efficacious than exposure to visual stimuli alone.³

As well as sounds produced by trees and running water, the sonorous forest environment consists in sounds produced by fauna, winged in particular, including bees. Some argue, although we await convincing scientific proof, that the particular frequencies, between 400 and 500 Hz, of bee humming favour a particular mental and physical relaxation. What is instead certain is the great benefit produced by the sounds of the forest all together, so long as not contaminated by artificial noise.⁴

Acoustic pollution, on a par with that of light, is now ubiquitous and pervasive. The impact on our health is often underestimated, or at least considered an inevitable legacy of

our urban lives, annoying but unavoidable. Actually, prolonged exposure to even low-level noise is, in a strict sense, a public health problem. It has long-term repercussions both on hearing functions and on several mental functions, such as concentration and memory, contributing to conditions of stress and therefore increasing cardiovascular risks. According to the World Health Organization (WHO), 1.6 million healthy life years are lost every year from traffic-related noise in western Europe. Sleep disturbance, a rise in the levels of "stress hormones" and oxidative stress in the vascular system and the brain can favour vascular dysfunction, inflammation and hypertension, increasing risks of cardiovascular diseases.⁵

As well as safeguarding increasingly rare natural soundscapes, it is hoped that a focus on the sound component will become an integral part of "restorative" landscape design, for example in city parks, so that they may best perform their functions of reducing and acting as an antidote to stress.

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1 Wilson, E. O. (1984). *Biophilia*. Cambridge, MA: Harvard University Press.

2 Jo, H.; Song, C.; Ikei, H.; Enomoto, S.; Kobayashi, H.; Miyazaki, Y. (2019). "Physiological and Psychological Effects of Forest and Urban Sounds Using High-Resolution Sound Sources". *International Journal of Environmental, Research and Public Health* 16, 2649. <https://doi.org/10.3390/ijerph16152649>.

3 Song, C.; Ikei, H.; Miyazaki, M. (2021). "Effects of forest-derived visual, auditory, and combined stimuli". *Urban Forestry & Urban Greening* 64. <https://doi.org/10.1016/j.ufug.2021.127253>

4 Filo P., Janoušek, O. (2022). "Differences in the Course of Physiological Functions and in Subjective Evaluations in Connection With Listening to the Sound of a Chainsaw and to the Sounds of a Forest". *Frontiers in Psychology*. Volume 13. <https://doi.org/10.3389/fpsyg.2022.775173>.

5 Münzel, T., Sørensen, M. & Daiber, A. (2021). "Transportation noise pollution and cardiovascular disease". *Nature Review Cardiology* 18, 619–636. <https://doi.org/10.1038/s41569-021-00532-5>

PARCO FLUVIALE
GESSO E STURA:
ESPERIENZA
DI NATURA

The “La Madonnina” nature reserve in Sant’Albano Stura is a very special place in the River Park: it’s a corner of paradise for humans and wildlife alike. Two large artificial lakes, seamlessly integrated into the environment, are home to over 200 species of birds, representing one of the most important wetlands in the whole of Piedmont. Several huts and a swamp offer a perfect spot for birdwatching, providing unique and stunning opportunities, especially during sunrise and sunset, to fully engage in the sounds of the natural world.

“Exploring nature goes beyond just using our eyes; sounds provide a unique perspective on the environment and its biodiversity. Soundscapes are studied by Ecoacoustics. Back in the 1960s, it was already clear that the sounds of nature could serve as markers for changing environmental circumstances. Rachel Carson, a marine biologist and one of the

founders of the global environmental movement, entitled her best seller Silent Spring: a season whose symphonies had been drowned out by the uncontrolled use of pesticides.

Each habitat creates its unique, distinct melody, that can provide us with a wealth of information. Step by step, we arrive at what we now know as Ecoacoustics.

The study of soundscapes in ecoacoustics demonstrates that a more comprehensive insight into the environment can be obtained through auditory cues, enabling us to detect changes in a habitat’s spatial and temporal dynamics as well as its biodiversity, identifying the impact of the exploitation of natural resources, noise pollution generated by human activities, the destruction of ecosystems, and ongoing climate change”.

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