

Country / CitySwitzerland, MendrisioUniversity / SchoolAccademia di Architettura di MendrisioAcademic year2018/2019Title of the projectMemory through soundAuthorsAugusto Ligresti



TECHNICAL DOSSIER

Title of the project	Memory through sound
Authors	Augusto Ligresti
Title of the course	Sardegna : Mining Landscape
Academic year	2018/2019
Teaching Staff	JoãoNunes & João Gomes da Silva, Angela Palmitessa e Teresa Figueirido Marques
Department/Section/Program of belonging Bachelor 3	

University/School

Accademia di Architettura di Mendrisio

Written statement, short description of the project in English, no more than 250 words

Nebida is a former mining town in the municipality of Iglesias. This village right next to the sea was born and depended entirely on the mine. Each gallery built benefited from natural ventilation. This well functioning ventilation system exploited the wind and the natural change of air due to temperature due to the temperature difference inside and outside the mine reaching up to 50 m^3 of air per second when the winf reaches its full speed. Thanks to this air exchange, it is possible to theorise the insertion of a musical instrument at the exit of the ventilation shafts, allowing this to play naturally. The instrument consists of two main elements: the bell shaped flare in brass and the vibrating metal disk. The vibrating disk is inserted at the base and supported by circular ring. The enclosure of the metal disk lets the air through a slot at its edge, creating a strong pressure at the base of the metal envelop. The pressure is released making the disk vibrate, reaching a frequency of 432 Hertz, very commonly used for meditation. Above the bell a kind of cap is inserted, which if raised or lowered with a winch it adjusts the volume. Through an underground that spreads the sound in the valley the wells become a place of meditation and listening. With my project I want to bring back to life a buried giant, the mine, giving it a voice.

For further information Máster d'Arquitectura del Paisatge -DUOT - UPC

T: + 34 93 401 64 11 / +34 93 552 0842 Contact via email at: biennal.paisatge@upc.edu Máster d'Arquitectura del Paisatge -DUOT - UPC ETSAB- Escola Tècnica Superior d'Arquitectura de Barcelona Avenida Diagonal, 649 piso 5 08028 Barcelona-Spain

CLIMATE CHANGE AGAIN

11th International Biennial Landscape Barcelona





Barcelona September 2020 SCHOOL PRIZE

Nebida's mine network:

ilated tunnels

lated tunnels Ventilation Wells

Old mine entrances and collpsed tunnels:

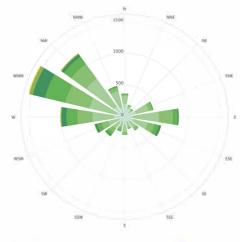






Landscape model of Nebida's area: (pins indicate the vertical wells for the tunnels ventilation)

Wind diagram (the stronger winds coming from the sea enter the tunnels directly):



● 0 ● >1 ● >5 ● >12 ● >19 ● >28 ● >38 ● >50 ● >61 km/h

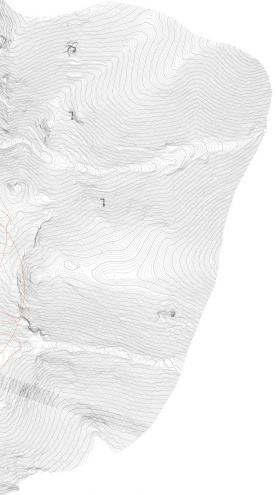














Tunnel entrances / Air entrances Tunnels Former mining path Wind path inside the tunnel Sound diffusion area



