

The Silver Fir Sonata

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The weather forecast was conceivably bad on August 31, 2022 in the Carinthian Lesachtal: heavy rain all day! Our team, consisting of the musicians, an actress, the film team, a 480 kg grand piano and 2 muscular men from the piano house as well as the initiators Georg Lexer and me, had disappointment written all over their faces: everything was prepared and on site, but we still had 5 km to go through the rain up the mountain at 1600 m above sea level. And that with a new grand! After long deliberation and a few phone calls, we all overcame our reservations and decided to go up to the mountain pasture despite adverse conditions. Thank you all for your cooperation!



But when we packed up our equipment in the evening, we had the most beautiful film footage imaginable in our cameras. Material for a long documentary film. Much more beautiful, mystical, impressive than in fair weather. Thank you, foggy clouds!

What was so fascinating about this day of shooting, apart from the mystical mists that passed us by like in "Lord of the Rings" and the mammoth task of bringing an impressive grand through a swamp to a 150-year-old fir tree without it toppling over or getting stuck, almost like in "Fitzcarraldo"?

Our intention was to make the fancy fir sing, or rather, to make it play the piano. And we succeeded! For this purpose, a small electrode was fixed in the ground in front of the tree, as well as a second one on one of the green needles of the silver fir. A small device "Music of Plants" converted the electrical resistance of the tree into MIDI signals, which are signals with which one can produce musical sounds.

Like all living things, trees have rhythms and so the electrical resistance also changes rhythmically, slowly becoming higher, then lower again, then quite low and somewhat higher, constantly changing. If the resistance rises, the pitch rises, if it falls, the pitch also falls. So that the whole thing adheres to the rules of music, tones of a scale or, if desired, all 12 tone steps of the octave are formed from the signal. The piano now served as the musical instrument for this tree music. Via a MIDI cable, the tree could operate the various keys by changing its resistance. And how it played!



As our film shows, he did this mostly with high virtuosity. Both in individual playing, without an accompanying pianist, and in the interplay with our pianist Franz Inzko, wonderful pieces of music were produced, for which even the cows on the mountain pasture were interested. (See bonus track of the film).

Now we still have a long way to go to edit a documentary film from this raw material. To give you a first taste, we have made a trailer showing individual scenes from the Silver Fir Sonata. You can watch the trailer at:

<https://youtu.be/U3nkFqqDdvQ>

If you like this (us) fascinating music, you can support the creation process of the film by arranging a monthly donation with our Patreon website. From certain contributions you will receive bonus programs such as books about the health effects of the forest, as well as access to the creation process of the film. You will then also contribute to the creation of the film:

www.patreon.com/user?u=80696372



Many people now ask: can plants hear at all?

In fact, there are new findings that they can!

For example, flowers produce more sugar in the nectar within minutes when bees fly around them or when bee humming is played, but not when other sounds...

Veits, M., et al.: *Flowers respond to pollinator sound within minutes by increasing nectar sugar concentration*. Ecology Letters, 2019. **22**(9): p. 1483-1492.

And studies in Australia have shown that plants grow their roots to vibrate (= deep sounds) once they have been trained that there are nutrients there:

Monica Gagliano: *Thus Spoke the Plant: A Remarkable Journey of Groundbreaking Scientific Discoveries and Personal Encounters with Plants*. North Atlantic Books, 2018