

My Piano on Mars

For Loudspeaker Orchestra
Premiere 28th May 2021

By Majella Clarke

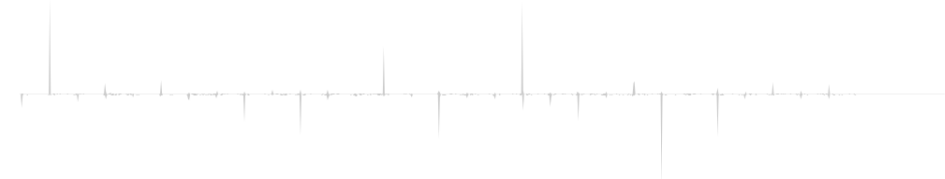


Image: NASA



Program Notes

BACKGROUND

The possibility of inter-planetary travel has always been a fascinating concept. There have been some spectacular failures when it comes to exploring space, but in spite of all of the successful expensive telemetry, the collection of sound experiences from our solar system have been a secondary sensory priority when compared with investments and interest in the collection of visual imagery, such as the Hubble telescope.

The appropriately named Perseverance rover marks a historical point in interplanetary audio capabilities because this is the first rover with working microphones on Mars. According to NASA, there have been previous attempts to record sounds from Mars and transmit them back to Earth. Specifically, the Mars Polar Lander crashed during its landing in 1999. In 2008, the Phoenix Lander had a microphone on its spacecraft's descent camera and despite its flawless landing, that instrument was never turned on "due to technical issues".

With the success of the Perseverance landing mission, humanity could finally get an answer to what does Mars sound like? The Perseverance microphone capabilities were designed to record several sounds. The first being the "seven-minutes of terror" landing, of which, upon success will record the Martian environmental soundscape. In addition, the microphones are of paramount importance because they will be used for the rover's instrumental diagnostics and performance measurement.

The environment of Mars is very different to Earth, as Mars has a much higher concentration of carbon dioxide in the atmosphere and the air density is lower than that on Earth, creating muffled low frequencies.

Program Notes

ABOUT THE COMPOSITION

The composition is intended to present a piano performance on the planet of Mars, against different recorded Martian soundscapes, including:

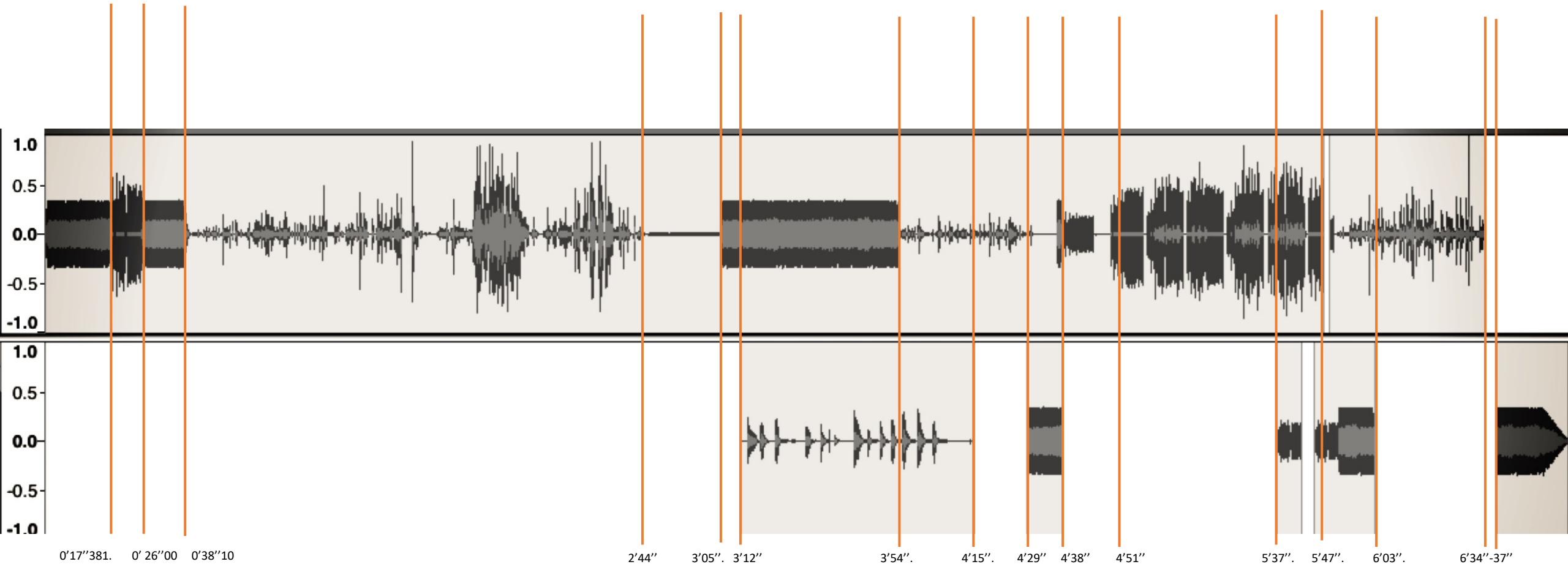
- The metallic sounds and pitches of the Perseverance rover driving and turning on the Martian surface;
- The first drone helicopter hovering above the Perseverance microphones;
- The gentle Martian wind filtered and unfiltered
- The clicks of the laser device that detects surface debris

The composition was designed for loud speaker orchestra with a console and sound specialist that could bring the flat, barren planet with Piano, to life, using acousmatic techniques such as sparking, emphasis and insertion, accumulation and unmasking with some solo moments. Glitches and muffles are deliberate presenting the first sound recording from another planet.

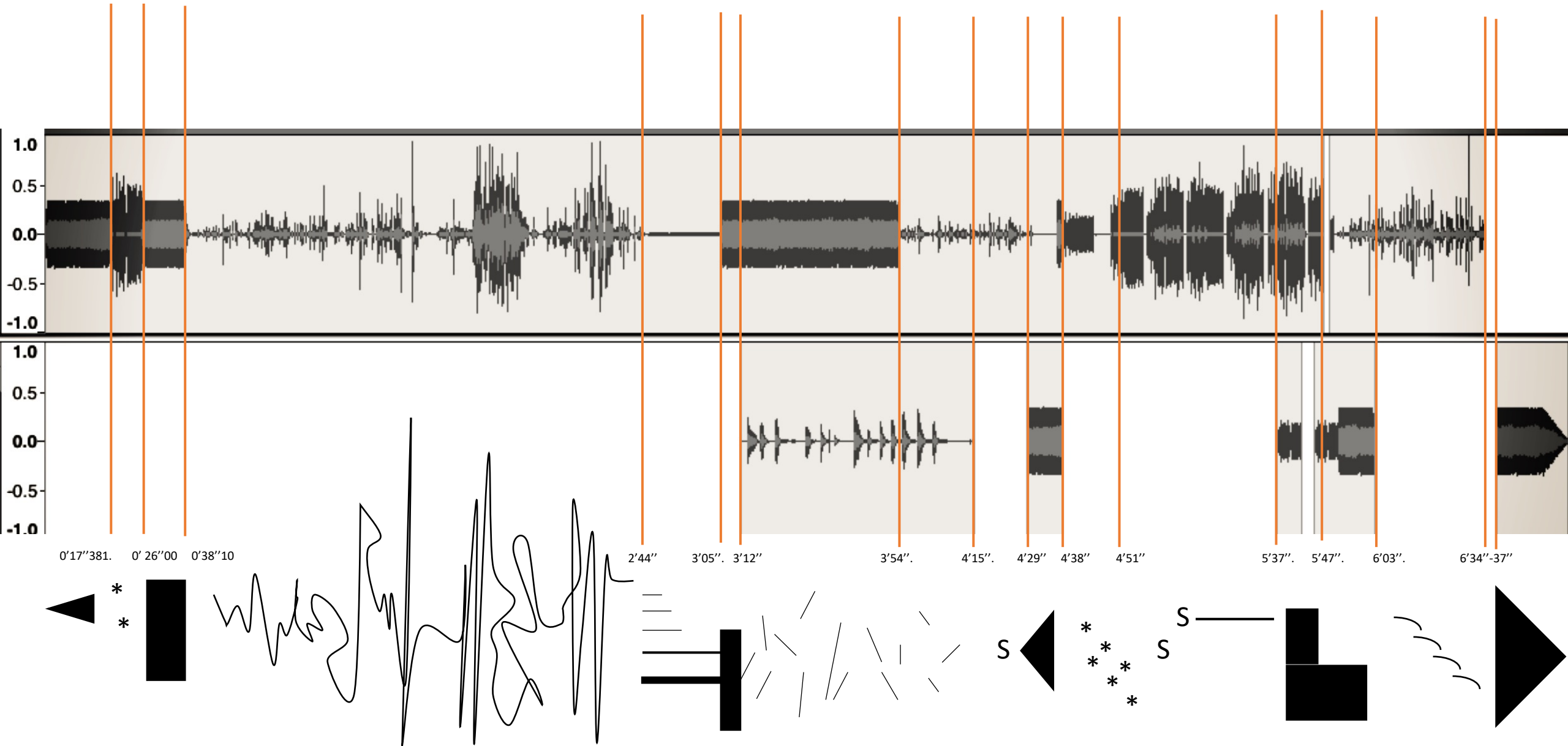
Sound Recording: <https://soundcloud.com/user-275999372/my-piano-on-mars-2021>

Image: NASA

Texture Shifts



Spatial Shifts and Phasing Plan



Notation



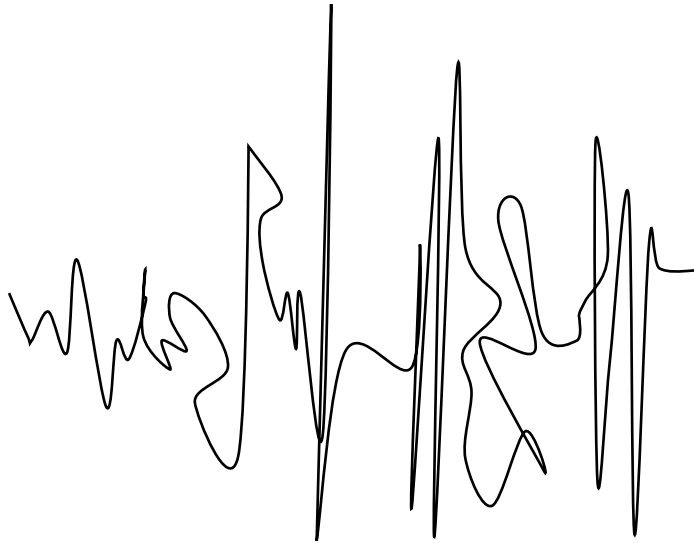
Fade In



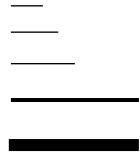
Sparking



Mass Volume



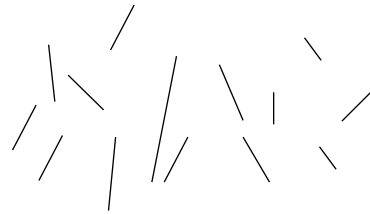
Emphasis/
Insertion



Unmasking →
Accumulation



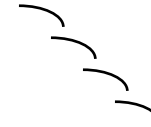
Accumulation



S

Unmasking

Solo



Waves



Fade out



