

LAST WHISPERS

Oratorio for Vanishing Voices, Collapsing Universes and a Falling Tree

Concept / Directed / Produced by Lena Herzog

With compositions and sound design by

Marco Capalbo and Mark Mangini

VR Direction by Jonathan Yomayuza

TECHNICAL SPECIFICATIONS FOR INSTALLATION IN ALL FORMATS

LAST WHISPERS

TECHNICAL SPECIFICATIONS FOR 30-MINUTE AV INSTALLATION

DELIVERY OPTIONS

- DCP (as a DCP disc and as a DCP on a flash drive)
- Bluray Disc with 7.1, 5.1 or Stereo versions
- Dropbox links to all versions
- Hard drive with 7.1 / 5.1 / Stereo / Binaural

VIDEO REQUIREMENTS

Last Whispers video projection requires a well-calibrated, strong projection capability to avoid accidental (magenta or other) coloring. The black and white film shows at 1920 x 1080 resolution as a black-and-white animation film.

AUDIO REQUIREMENTS

Last Whispers was originally composed and mixed in a non-standard 8.1 speaker format with 8 full fidelity speaker channels arranged in an equidistant octagonal array with the .1 speaker (channel 9) being a standard subwoofer.

However, versions of the audio mix have been mastered to accommodate standard cinema 7.1, 5.1 or Stereo. These versions are available in either DCP or Bluray Disc format. They are also available as individual audio tracks (either interleaved or separate), for playback with the standalone Quicktime ProRes video file, using Qlab or similar software.

If streaming over a two channel device, we may also provide a L/R dynamics reduced mix for podcasts or internet streaming, and a two channel binaural mix (for headphones).

AUDIO SPECS

Mastering was done with SPL set to 85dB C weighted for the main channels and 90db for the subwoofer.

The individual audio files are in the following format:

FORMAT - .wav

SAMPLE RATE - 48kHz

Bit DEPTH - 24bit

TC - 23.976 Frame rate

Program starts at Time Code: 01:00:00:00

Tones and Setup:

Time Code starts at 00:57:30:00 = Speaker setup audio guide

Time Code starts at 00:58:45:00 = -20dB Pink Noise for 1 minute.

LAST WHISPERS

TECHNICAL SPECIFICATIONS FOR 30 MINUTE VR INSTALLATION

DELIVERY:

- 360 Video available for download via Dropbox links

EXHIBITION REQUIREMENTS: 360 VIDEO

Computer Requirements:

Minimum - 6th-generation Intel Core i7-6700HQ processor, 8GB of RAM, two USB 3.0 ports, HDMI 1.4, a 1920 x 1080 display and Windows 7 or above.

For graphics cards, the minimum components that can be used with either headset are a Nvidia GTX 970 GPU or an AMD Radeon R9 290 GPU.

Headset Recommendations:

Oculus Quest, Oculus Rift

Recommended headsets have built in speakers, if they do not, ear headphones must be provided such as Sennheiser, Bose, or Sony

Exhibition Setup:

Experience requires 3 x 3 ft of available space. Standing is recommended but a seated experience can be made available as well with a chair that can swivel 360 degrees.

360 Experiences:

Enlist at least one attendant to launch the experience and watch the user as they navigate the space whether sitting or standing.

OTHER REQUIREMENTS

Be sure to have power access for charging headsets and controllers. No internet is required if the piece is already downloaded onto the headset. If showing multiple headsets at once each individual headset requires 8 x 8 ft of space with a partition or pipe and drape in between.

LAST WHISPERS

TECHNICAL SPECIFICATIONS FOR DOME INSTALLATION

DELIVERY OPTIONS

- H.265 MP4 Digital Download
- SSD Hard drive with H.265 Render

VIDEO REQUIREMENTS

The *Last Whispers* full-dome experience is delivered in standard full-dome format (1:1) and requires a well-calibrated, strong projection capability to avoid accidental (magenta or other) coloring. The black and white film shows at 4K resolution as a black-and-white film. It is composed of animation, drone footage and stills.

AUDIO REQUIREMENTS

Last Whispers has been mastered to accommodate standard cinema 7.1, 5.1 and Stereo. These versions are available via digital download upon request. They are also available as individual audio track stems (either interleaved or separate), for playback with 7.1, 5.1 and Stereo systems. If streaming over a two channel device, we may also provide a L/R dynamics reduced mix for podcasts or Internet streaming, and a two channel binaural mix (for headphones).

AUDIO SPECS

Mastering was done with SPL set to 85dB C weighted for the main channels and 90db for the subwoofer.

The individual audio files are in the following format:

FORMAT - .wav

SAMPLE RATE - 48kHz

Bit DEPTH - 24bit

TC - 23.976 Frame rate

Program starts at Time Code: 01:00:00:00

Tones and Setup:

Time Code starts at 00:57:30:00 = Speaker setup audio guide

Time Code starts at 00:58:45:00 = -20dB Pink Noise for 1 minute.

LAST WHISPERS

TECHNICAL SPECIFICATIONS FOR 360 PROJECTION MAPPED IMMERSIVE GALLERY / ROOM / CUBE INSTALLATION

DELIVERY OPTIONS

- H.265 MP4 Digital Download
- Projection server computer with videos and accompanying playback software

VIDEO REQUIREMENTS

The Last Whispers full-room immersive experience is delivered in six 1:1 .mp4 files, one for each gallery wall face including ceiling and floor, and requires several well-calibrated projectors with strong projection capability, depending on the size of the room. Any number of wall faces, between 1-6, can be projected upon in this display format.

AUDIO REQUIREMENTS

Last Whispers has been mastered to accommodate standard cinema 7.1, 5.1 and Stereo. These versions are available via digital download upon request. They are also available as individual audio track stems (either interleaved or separate), for playback with 7.1, 5.1 and Stereo systems. Higher channel mixes, such as 8.1 or 4.1, can also be provided.

AUDIO SPECS

Mastering was done with SPL set to 85dB C weighted for the main channels and 90db for the subwoofer.

The individual audio files are in the following format:

FORMAT - .wav

SAMPLE RATE - 48kHz

Bit DEPTH - 24bit

TC - 23.976 Frame rate

Program starts at Time Code: 01:00:00:00

Tones and Setup:

Time Code starts at 00:57:30:00 = Speaker setup audio guide

Time Code starts at 00:58:45:00 = -20dB Pink Noise for 1 minute.