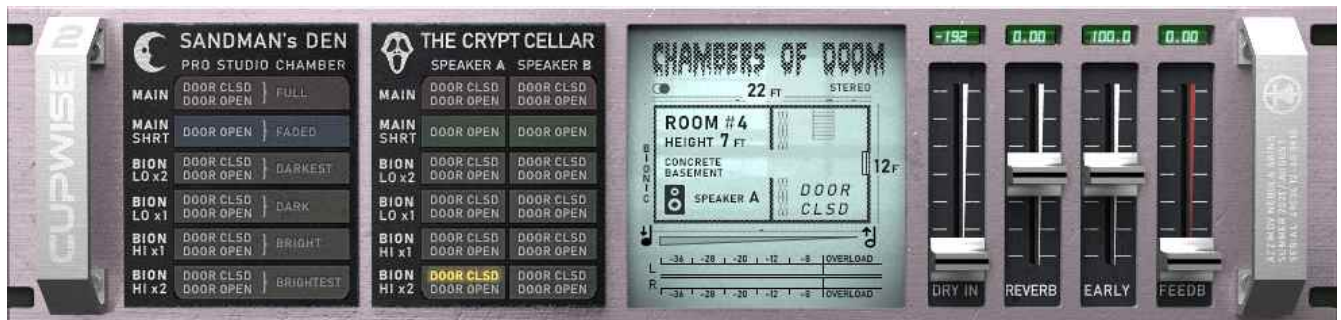# Cupwise Real Spaces- "Echo Chamber" Reverbs 2: Chambers of Doom

General Info

An echo chamber is a reverberant real space, which is used to add reverb to any audio signal. This is done by playing the signal into the space from at least one speaker, and picking up the audio from that space with at least one microphone. The speaker/mic are usually arranged such that very little signal can travel directly between them, with the sound waves having to bounce off of the walls (becoming diffuse) at least once before reaching the mic(s). In other words, mostly just the reverberation of the space itself is captured. The wet signal can then be mixed back in with the original dry audio to taste.

This method was used to get reverb effects into recordings before any of the more artificial methods (plates, springs, digital units) became common. Famous examples include the fabled chambers at Capitol Records which are still in use today, Phil Spector's chamber(s) at Gold Star Studios, and 3 chambers at Abbey Road Studios. It's not too common for a studio to have a dedicated, purpose-built echo chamber these days, but some still do. Some will utilize a kitchen, lounge, bathroom, hallway, or other space as a make-shift echo chamber on occasion. This means echo chambers can have a wide variety of sizes, shapes, and types of material making the walls/floor/ceiling, and ultimately, a wide variety of sound in the reverbs they can produce.

Two different echo chambers at two separate studios were sampled for use with Nebula in this library. I'm giving them unique preset names to help you differentiate between them. The first one in this release (actually the 3rd chamber overall in the series) is called "Sandman's Den" and it has a gloriously big, smooth sound to it. The chamber is about 14 x 16 feet with an 8 foot high ceiling. It has a concrete floor, with concrete block walls. It was sampled with the door into the room both closed and open, open providing slightly less density and quicker decay. This incredible chamber was captured with a stereo mic setup.

The next one (4th in the series) is called "The Crypt", a name inspired mostly by the chamber's creepy look, including (hopefully fake) blood decorations. The chamber is a concrete basement with a vaulted, brick ceiling of around 7ft at the highest point. It's made of two spaces separated by a doorway, with a combined length around 22ft, and about 12ft wide. As you can see from the pictures (the one on the title page also belongs to this chamber, as well as the picture at the end of the manual), there are a lot of irregular and rough surfaces, which definitely contribute to the sound. Two different speakers were used separately, to get two different sounding results. Both were captured with a stereo mic setup, with the speakers in one room and the mics in the other.
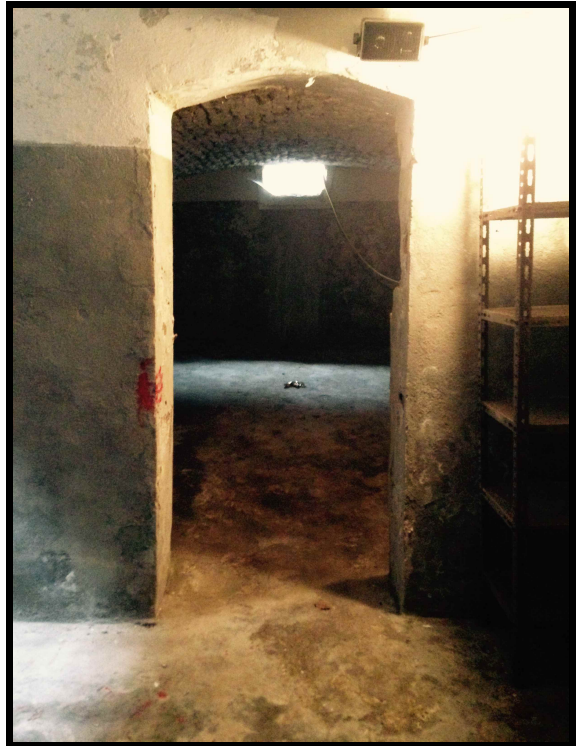
For each of the described sampled setups there are 4 additional "Bionic" versions which use a process I came up with years ago that involves playing/recording the sampling tone sweeps faster or slower. The end result is like the 'pitch' of the space is shifted up or down (resonances that were at one frequency are shifted higher or lower). This gives you some very nice brighter or darker variations that sound awesome and give you more choices.

Altogether there are 11 reverbs sampled in the "Sandman's Den" chamber, and 20 in "The Crypt", for a total of 31 unique reverbs. There are also 2 extra programs for The Crypt, which I faded out early, to produce shorter reverbs, bringing the total to 33.

Installation

There are two main steps to the installation-

1) Install the programs/vectors. Just copy the .n2p files to your Nebula 'Programs' folder, and the .n2v files to the 'Vectors' folder. Before moving on to the skin install, check to see that the programs do load properly in default Nebula, by going into Nebula's program finder list and loading them from there. You'll find the programs in the 'REV' category, then either the 'E04', 'E05', 'E08', or 'E09' categories below that, depending on the sample rate(s) you've installed. 'E05' is for the 48khz rate.

2) To install the skins, consult the section of the skin installation manual relating to either N3 or N4, depending on which you're using. After installing the skins you will be loading these programs as a unique plug-in, so don't ever load them from the default Nebula and its program selector list again! The program buttons will not work if you do!

Use

All of these programs are set up to use as 'sends' by default when they load. There are a few reasons I've done it this way, and I encourage you to use them as sends. If you really want to use them as inserts, I strongly suggest using your DAW's built-in wet/dry mixer control (if your daw has it, and it should) for the Nebula plugin, instead of using the 'dry' control in the reverb programs to add the dry signal back in. If do use the 'dry' control, do not also use the 'feedback' control, or the dry portion also feeds back.

One benefit to using these programs in an actual send slot in your DAW, is that you can also then apply a delay to the signal with whatever means at your disposal, to get a pre-delay for the reverb effect. Nebula doesn't have this ability built in, so this is the only way to achieve a pre-delay.

You should adjust the 'reverb' level so that the meter is showing levels at -18dB and over, for the best sound. Then use your DAW's send channel level control to set the actual level for your mix.

Controls

Select- Selects one of several different sampled reverbs. See above.

Early- Allows you to lower OR raise the level of the early reflections. The default position (100%) gives you exactly what was sampled. You can increase the early reflections level by 6dB if you increase this control to the 200% position. 0% fully removes early reflections.

Dry- Adjusts the dry signal's level. The programs load with dry fully removed. You definitely shouldn't use this to add dry signal in if you are going to also use feedback. I recommend you never use it, and use your DAW's built-in wet/dry mixer control for Nebula instead, or use the program in a send slot.

Verb- Adjusts the reverb level.

Feed- Adjusts feedback level. As long as you're careful with this, it can be really useful for getting more variety out of these reverbs. It's always a good idea to follow Nebula with a limiter if you want to use some of this feedback.

The Programs Matrix- Click on the programs to load them!