



Lawrence Rock

As the New York Philharmonic, along with its home town, begins to return to something approximating normality, we talk to the Orchestra's audio director about his evolving role, the challenges of streaming, mic choices, and saving a lost year



The venerable New York Philharmonic was inspiringly agile in its response to the pandemic's encroachment on life in the spring of last year. Almost immediately, it began to enlist its long rollcall of talent for home performances, and put out content over its social

media and YouTube channels that branched out in scope and scale as 2020 dragged on. Come Autumn/Fall, its musicians and technicians were out on the streets of Manhattan performing for its followers. Then, in February of this year, it launched its NYPhil+ subscription streaming service, to both leverage its considerable archive of classic performances — which are being remastered for it — as well as present new events from its programme for the upcoming season and beyond.

Lawrence Rock — who, in reliable audio engineer style, quickly insists we call him 'Larry' — has been audio director of the Phil' since 1997, with a purview that puts him on point for all audio activities including recording,

broadcasting, and live sound. So, to say he plays a key role in how the general public interacts with the Orchestra in real life and online would be an understatement.

Having cut his teeth in radio and then with the symphony Orchestra in Chicago, he has



guided the Philharmonic through an explosion in the recording of sound and vision — both as an augmentation of its archive, as content for broadcast, and latterly via social media and streaming. His work in New York has garnered him three Grammy awards, all connected to his work with John Adams on *On the Transmigration of Souls*, which he co-produced with the composer. He's also worked with Lorin Maazel on The Complete Mahler Symphonies, Live; Deutsche Grammophon's New York Philharmonic DG Concerts CDs and downloads; the Grammy-nominated *Sweeney Todd: Live at the New York Philharmonic* and sets for the New York Philharmonic Special Editions label among many others.

Our chat interrupts his preparations for the return of the Orchestra to the annual Bravo! Vail event in the Colorado ski resort during July, and comes as he is assessing the success of its first couple of New York-based parks concerts and socially distanced events of 2021 — the first having been being at the West Side's new 'Shed' space at Manhattan's Hudson Yards, followed by the annual Memorial Day concert that you can see on Phil+.

Does it feel good to get back to something akin to normal events?

I spent a lot of last year preparing performances made from iPhone recordings of individual musicians. It was a good thing to do to be visible and audible, but it really ran its course.

From last fall, we started to do various things — mostly location video captures. The first event we did indoors was in April for a small invited audience.

Then you did the Memorial Day event at St. John the Divine?

This year we streamed it live, too — which is always a little scary because you rely on the internet. That was also with a live audience, but very distant. We didn't have a stage this year to spread the performers out. There's an eight second reverb time there as well, so it's a bit peculiar as, as it goes.

I assume the biggest change within your job has come been the rise in the amount you're recording, especially with the streaming and filming the concerts?

Yeah, it really has changed, and ever since March 13th of last year, video has figured prominently. There are requirements for doing audio for video, including — of course — the sampling rate. The video standard is 48kHz, but all the archival recording I've been doing, ever since 96kHz became practical, has been at 96kHz. You can convert rates, but when it's live you have to decide about that. You're also always having to keep in mind what's going to happen to this audio... Dynamic range is another can of worms.

Do you just have to make an educated guess about limiting dynamic range? It seems that, ultimately, all you can do is make a call based on taste and experience?

Yes. The problem — either feeding it live or uploading it — is what algorithm will be applied to it as a matter of course by YouTube, Facebook, Amazon or whatever. Regardless of what I do, it's going to go through something else, and then the data compression.

You don't want to feed something that's wide open and totally uncompressed hoping for the

best down the line, because it's inconsistent. Nor can you pretend what you're doing is exactly what's going to be represented when people are streaming. So it ends up being an approximation. It's a bit of a shot in the dark, because you don't know — and it can vary from time to time, instance to instance. On Memorial Day, we began with the Adagietto from Mahler's Symphony No. 5 — strings and harp — and it starts very quietly, but it has to be audible. At the same time, it can't be like pop radio.

Did you work on how the audio would be presented for the NYPhil+ streaming service?

That's something that's been post-produced, so you can package it and do what's necessary. For one thing, you're uploading a file to the streaming service's specifications, so it definitely gives you an advantage. It's not so much the case when we're linking to YouTube and Facebook.

I noticed a lot of close mic placements on the livestreams, more than I was expecting, is that to do with performer spacing due to social distancing?

Besides St. John The Divine, there was another Episcopal Church that we worked in — St. Barts in mid-Manhattan — where everybody was

really widely spaced. There, all the wind players were 12ft apart so, even for a small orchestra, they were over a very large area. There's no way you could ever get a blend. With St. John The Divine, we were a little closer, but the acoustic in there is so reverberant, you would really have to have people tightly seated to get a blend and control that — which of course, is desirable. I hang a couple of mics for the mains, and you get some of the main floor and the ambience, but there's no way to get a natural blend, so it was inevitable that we would have to mic every player.

For video, they have to accept that microphones would be visible — and I've done my battles with TV directors about microphones. Some don't want to have anything hanging over the orchestra, but they're okay with standard mics. Then others are just the reverse... Then there are some that don't want to see mics anywhere!

It looks like the Schoeps Colettes that you are using, or is it the smaller CCMs?

It's the Colettes. I first learned of Schoeps in the 70s; what really put the brand on the map here was the introduction of the Colette series. TV sound crews brought in Schoeps mics with these skinny little cables, and this was a brand ▶



new thing. We'd been hanging big multi-pattern mics over the orchestra and it was very visible. It was a while before we got the stand versions, but [straight away] you could use a lot of different capsules and different pickup patterns in the system with the same preamp — not a big switchable thing — and Schoeps developed new capsules as time went by.

It's really the go-to mic for me — on anything that's visual, of course, and then also live sound and recording. That has lot to do with the whole package; you're not having to put a typical mic stand with a mic and the cable draping down and all that — it's much more elegant. They're great-sounding mics and extremely well built. Most of the Schoeps mics I have are about 30 years old, even my 'newer' capsules have been around for about 25 years. It's just a solid system.

Most of the audio equipment out there, especially anything digital, becomes obsolete — except for microphones, they maintain their value. Also, the service Schoeps provide is the best bar-none. They're just fantastic in the way they handle that.

Are you using tight polar patterns to make sure you're focusing on the individual instruments or using a wider cardioid to create a blend?

Some of each. If I only had one microphone of a given pattern that I could use, it would be the Collette MK21, which is Schoeps' sub-cardioid or wide cardioid. You can almost use it as an omnidirectional mic, but you can also use it as a spot mic — it will work and it just sounds great for anything — depending upon the location. What I tend to do is use sub-cardioids downstage, for the concertmaster and the violins that are farther from brass and percussion, and as I get back to where you're closer to some of that, then I kind of go in a more directional pattern and use the cardioids. That's the MK4, and then the MK41 — the hyper-cardioid, if I have a string player right in front of a percussion.

I also use the MK2S capsules — which are the Omni capsules that are used widely; Decca use

them for just about everything, definitely anything recorded in a live performance. I also have the [MK2H] linear omnidirectional mics, that are more for soloists. We did a video capture of a cellist playing all the Bach suites with a couple of those, in a church. When you get them in the right position, you get the presence and the ambience all with one pair of mics. That is, of course, the nicest way to go. It's very natural sounding.

How do you go about capturing an atmosphere for events? Do you mic the audience specifically or use boundary mics for ambience?

When I'm working with TV sound engineers, I do the orchestra mix and then somebody on the TV truck will add audience mics to be able to control bringing up the applause. They'll typically use some kind of shotgun mics, pointing into the audience. I wouldn't do that, as a rule, though. For one thing, you tend to only hear a small group of people clapping.

So as part of a typical event, I will have one set of main microphones, but also some ambient mics that have the ability to capture the totality of the event, including the audience. So you hear the audience in perspective with the ambience of the orchestra. I guess you might say I go for a layered approach of getting most of the sound from a main array, which typically is omnidirectional mics across the orchestra, and then spot mics for sections of the orchestra. And then a couple of mics hanging for ambience that are a little farther back and higher up. Balancing between them all is the trick.

When you come to put together a live recording, how much is there a to-and-fro between you and the musical director? Do you simply have to react to what they're telling you regarding how it's going to be laid out?

The vast majority of my career has been live recording, where the layout is the layout — that's even been the case with some of the session recordings that I've done. I did a whole series of the Dvořák symphonies in Milwaukee,

and all we were able to do was adjust the acoustics. One of the tricks in a hall that is not particularly live is to either use the stage extension or get sheets of plywood — typically four by eight feet — spread out on the seats. We used 60 of those to bring up some high frequency — you know, 'air'. That can really can make a big difference in that overall ambience.

What's your recording rig?

I use Merging's Pyramix or Vegas Sequoia; I personally like Sequoia for editing. I was an early user of Sonic Solutions, which was developed by people who used to work at Lucasfilm. I noticed that broadcasters, especially in Germany, all use Sequoia. Here in the States, I know of some producers that love Sequoia and then many who love Pyramix. What I have settled on, because it just sounds so bloody good, is the Merging Technologies Horus interface. It's just so clean and it just works and there are just some things about its approach that make complete sense. I've been using MADI, but now as part of the Horus there's also network audio that's AES67. So, the Horus is the basis, with Sequoia and PCs — because it's much easier to build a custom computer that has exactly what you need, and is rackmounted.

So how are you sharing signals and feeds with FOH and others?

With TV trucks, I would feed them the MADI they're accustomed to. When it's really critical to have, you know, a split and isolation — and no reliance on clock being shared or anything like that, we'll actually use mic splitters. I prefer passive transformer splitters to active, which add a whole extra layer of electronics. I have some good ones that I had custom-built, that have the Jensen transformers everybody likes. Then you really have complete isolation and one party can do whatever they want with whatever preamps converters so on, and I do my thing. So there are three levels: the mic splitting, and then AES67 or MADI, those are the most common ways of sharing signal.

So what are you looking forward to from the new programme, what exciting projects have you got lined up for later in the year?

Well, there's one more thing this early part of the summer in a park adjacent to the Metropolitan Opera building the Lincoln centre campus, where we have one concert with our music director Jaap van Zweden. Then after that, Bravo! Vail in Colorado, a music festival we've been going to for about 20 years. Colorado Public Radio does live broadcasts from there, so I'll do a separate radio mix. They have a Dante system. This year, we're actually doing a live video stream — typical of the era — where I will do a similar thing, I will be linking to that and doing a separate mix. Then there's a break until... well, there's some talk about something towards the end of August and Broadway reopens along with the Philharmonic in September. That's a big deal. **i**