

Opera Electronica

Since 1999, New York City Opera has presented VOX, a series of orchestral readings of new opera each spring. In addition to experimenting with new tonalities and new narrative techniques, a number of creative artists have used technology to add new sounds to the orchestra, either by manipulating traditional instruments and other natural sounds or by creating entirely new sounds. This spring, for the first time, VOX included several examples of new works that feature electronica. In a panel moderated by Tod Machover, a group of composers featured in VOX 2006 discussed the use of technology in their music.

TOD MACHOVER: I've been writing opera with technology for about 20 years now, and there was a time when people thought the combination was kind of crazy. But it's turned out that opera, because it's a hybrid form, has actually been a more fertile ground for technology than most other forms of classical music.

Technology is part of our world. It is part of the music world, and I think it should be part of opera in a variety of ways. There's a lot of competition out there when you talk about technology in performance. Opera was once the most high-end, sophisticated art form, but now we've got rock touring productions that are outrageously cool. Even if the music isn't always that good — and sometimes it is — the shows are fantastic. And there are shows in Las Vegas with an extraordinary level of sophistication. When we work with technology, we have to know something about all the wonderful stage spectacles already going on in our world, and we have to do something even more original. The biggest challenge is to keep technology fresh and keep it radical, because there are some clichés starting to creep in. The coolest thing about technology, I think, is that it lets you make the world different. Now we'll hear how our panelists are doing just that with their operas.

MASON BATES: Electronics have an important dramatic function in *California Fictions*. The opera is a retelling of Thomas Mann's *Death in Venice*. My initial idea was to use electronics to conjure up the moments when Dean, the writer, is spinning into bouts of drinking or taking a lot of Valium. It was Mark Adamo who suggested the electronica could have a dramatic function of being associated with the two younger characters who take Dean out of himself. One is the wife of a dot-com millionaire, and Dean finds himself watching her out of the window — she seems to be the muse he needs to rekindle his creative vigor. She has a kind of ambient electronica associated with her. There's also this club kid who, like Puck in *A Midsummer Night's Dream*, speaks in rhythm. He's a bit manipulative and very charming, and he has electronica beats associated with him. While there are many branches of electronic music in the 20th century, the one I feel closest to is one what some people call techno. It's a world where there are as many different dance forms, dance styles, and dance beats as there were when Bach wrote his cello suites, which are similarly based on many different dance forms.

JUSTINE F. CHEN: I came to the idea of writing an opera toward the end of my doctoral tenure at school, and one of the most important things for me was for it to be short in duration. So it's only about 35 minutes long. It's small.

TOD MACHOVER: You've said that before. Why do you emphasize the shortness of it?

JUSTINE F. CHEN: I think there's a way you listen to short music which is different. If you think about the way you listen to Webern vs. the way you listen to Wagner — you have to really hold on to every single moment. So it's rather short for opera, and I have small forces: Four characters and an 11-instrument orchestra. In the same spirit of efficiency, I worked very hard to have the electronics be an integral part of the story. One of the characters is a computer who runs the house where the story takes place. A father and daughter have been in a house for 17 years. When a person comes to repair the computer, the father does not want the daughter exposed to this outside element. He is afraid she'll become curious and want to leave him and the house. My use of electronics had to do with the polarization between daughter and the overprotective father, and also the house,



Philip Curtis at the laptop during the performance of LeBaron's *Crescent City*. Photo by Carol Rosegg.

which also represents protectiveness. So talking and electronics are related to the computer and the father, and singing and acoustic music are related to the daughter, naturalism, nature.

ANNE LeBARON: My piece is called *Crescent City*, which is a nickname for New Orleans. Philip Littell is my incredible librettist for this opera, which has to do with what happened in New Orleans recently, but also is far larger than that. We are reanimating the great, legendary Marie Laveau, the voodoo queen of New Orleans. We are reanimating

her because she can't bear what is happening to her city.

There are two layers to the electronics. There are very energetic tracks of beats that appear when people are in other frames of mind. I use these beats as a contrast of mood, and also as a hallucinatory agent. The other layer of electronics was developed with Phil Curtis, who is the ur-sound effect person. He's not only triggering things like airplane sounds that blend with the orchestra timbrally, but he's also processing sounds from certain instruments.

STEPHEN ANDREW TAYLOR: In 2002 Ursula Le Guin published a collection of stories called *The Birthday of the World*, and the last story in this collection is called "Paradises Lost." It's set aboard what people in the sci-fi business call a generation ship, which is a starship going to go colonize some new planet. There's no magic — no suspended animation or warp drive or anything like that. Basically you have people having children and eventually dying on this spaceship, which is going to take hundreds of years to get to the new place. Ursula imagined these people would sanctify their purpose by making their life a religion. Everything they can find out about Earth leads them to think it was hell because it had war and crime and poverty and disease. On this ship, they have everything. They don't get sick. And so many of the people on the ship say, "Well, we came from hell, and now we're in heaven. We do not want to land on another hell." Their entire world is the ship. Inside is life. Outside is death.

Right after I read the book, I thought, "Oh, geez, every composer in the world is going to want to turn this into an opera." So I immediately sent a treatment of the story to Ursula Le Guin. When I met with her, she was most interested in how to depict the birth of a religion, coming at it from a sort of anthropological perspective. So that's where the electronics come in. I tried to imagine ways these people would sanctify their lives. Bells, of course, are a part of religious ritual everywhere. But what would you have for a bell on a spaceship? I imagined tapping the hull of a giant metallic sphere, like the spaceship in *2001: A Space Odyssey*. So I took some Tibetan singing bowls and cross-synthesized the sound with a piano to get the sort of harmony I was looking for. Then, as it goes on, you hear little air sounds blowing. There were two sound worlds I was trying to use: One is the religious sound world, with the bell sounds, and one is representing the planet they're going to hopefully get to someday. For a lot of the planet sounds I used a great, big conch shell. I also use the computer to make some percussive sounds. I've been scouring the Internet for sounds from NASA, so one particular sound is adapted from the Cassini space probe, which is orbiting Saturn right now. It's quasi-percussive and quasi-ambient. The last sound I have represents the engines of the spaceship.

TOD MACHOVER: A couple of practical questions. Since all of you have experience with both instrumental music and electronics, how do you think about combining electronics and acoustics? Who's in control of the electronics? Is it the conductor?

MASON BATES: I always want to keep the musical idea in sharp focus. If I've written a piece for orchestra and electronics, I want to make sure, first of all, the role of the electronics is clearly defined, or if it morphs, that is an organic

part of the piece. I just finished a piece called *Rusty Air in Carolina* which uses the sounds of cicadas and katydids and crickets and things, the sounds I grew up with in the South, as a kind of white noise. The beginning of the piece is very ambient. You have these fluorescent orchestral textures floating by with these waves of insect songs. It's a kind of take on a pastoral theme. The conductor has to listen and say, "Okay, the cicadas are starting up now," so the cue is built into the electronics in that way. Later in the piece, the insect sounds begin to form a kind of beat, which functions kind of like an audible click track — hopefully more interesting than a click track — and the conductor can listen to the beat and stay with it. I'm not always a big fan of that kind of thing, because it makes the conductor a slave to the electronics. So there are moments when the electronics disappear, and usually I'm in the percussion section sending the next beat section out when we get to a particular spot. For me, it's important for the electronics to be flexible and simple. No matter how much time you spend in the studio fashioning the sounds, everything has to pop out of the box very, very cleanly in orchestral rehearsal.

TOD MACHOVER: It sounds like you make electronic tracks, and then you set them off at a particular time. Does somebody mix levels within the electronics when they come on, or are they prebalanced?

MASON BATES: It's a problem. I find that in order to really get the alignment right, I have to be in the percussion section playing the beats. However, if I'm in the percussion section, I have no idea how it sounds in the hall. So I have to have a sound guy I really trust. And occasionally I run out in the hall and listen.

JUSTINE F. CHEN: I find myself struggling with the mixture of acoustic and electronic sounds constantly. My dissertation was on Davidovsky's *Synchronisms*. These pieces are written for live performers and tape, and the interaction is totally illusory. There is no interaction, because the tape is not going to react to the performer. But the pieces are so brilliantly written you feel like the electronics are playing around with the sound and the performer's reacting.

TOD MACHOVER: What's the trick in the Davidovsky, besides that they're well-written?

JUSTINE F. CHEN: Good performers, I think. When the performers really know them, you think they're controlling everything that's happening. There's something so magical about it.



Tenors James Schaffner and William Ferguson singing in Mason Bates' *The Garden Next Door*. Photo by Carol Rosegg.

Because I grew up as a violinist in orchestral settings, there's nothing I love more than acoustic sounds, and most of my aesthetic on electronics is manipulating acoustic sounds. I want to be able to create sounds, as well, but the complexity of instrumental sounds and what performers can do is just so fascinating. I think vocal processing is perhaps the most audible, accessible use of technology from an audience perspective. Listeners don't always know exactly what an instrument can do, so they may not be able to tell the difference between extended techniques and artificial manipulation, but do they know the human voice. So when there's some type of manipulation happening, they're clued in.

ANNE LeBARON: I would agree with Mason — it's really important to keep things simple, straightforward. However, with my beat tracks, I'll make one of the bars not quite exact. It gives a little bit of a human feel to the thing. So there's a 3/8 bar, but it's not quite a 3/8 bar.

We haven't really talked about video, but I've discovered video is another way of cuing. If the piece includes video and the player can't get the cue from the sounds — perhaps they're too ambient — he might get a cue from the video. That's something I'm exploring now in a piece I'm writing for the International Trumpet Guild. I'm planning to write two versions of it, one for the video with the audio embedded, and the other in which the player will process the audio himself. The second version gives the player more control over his sound, but not all players want to do this, so it's good to have a couple of versions.

STEPHEN ANDREW TAYLOR: I'm using a pretty simple setup, where the electronics are triggered by hitting the space bar on the laptop at certain places in the score. The person playing the laptop just follows the conductor. I like the idea of the electronics just being another part of the orchestra.

TOD MACHOVER: I read that you're quite interested in using the electronics as kind of a timbral extension of the orchestra.

STEPHEN ANDREW TAYLOR: Yeah, to make sounds you can't get with regular instruments. There are some occasional extended instrumental techniques I'm using as a kind of a bridge. For instance, I'll have the violins playing sul ponticello to emphasize high harmonics, which tie in with some of the upper pitches happening in the electronics.

TOD MACHOVER: I'm curious to know if you have any dreams, if there's something you're dying to do with technology and opera.

STEPHEN ANDREW TAYLOR: If this opera ever goes on to a full production, I would like to experiment with vocal processing to depict different interior states of the characters. Björk has done these amazing processing things where she'll say a word and the word will come out very, very filtered. This has immense dramatic possibilities for interior monologues. It could be like an analogue to Wagner's leitmotifs, where a character is singing one thing, but the leitmotif is saying something else.

JUSTINE F. CHEN: This was my first opera, and there was a moment when I was struggling to put more electronica into it. In the end I was very careful to be true to the story and to follow that through instead of worrying about how fancy my electronics would be on top of it. Now that I've figured out a lot of the issues, I'm excited to pursue more electronic opera.

MASON BATES: I guess there's not a lot to say except I will always want electronics to serve some dramatic purpose if they are going to be used in opera. I want to be careful not to overwhelm the orchestra or the singers. On the other hand, I'm not really interested in having a purely cosmetic role for the electronics. I remember hearing a new opera recently where the electronics just seemed to be little quirks here and there that really didn't bring anything to the drama of the piece. Finding a balance between utilizing it as a powerful dramatic tool and musical tool, and also making sure that things like prosody and vocal writing and orchestration are still tools in the toolbox that aren't getting ignored — that's the challenge. ✧