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Q&A with Nathaniel Bartlett

By Scott Shoger @scottshoger

Nathaniel Bartlett calls his performance concept Modern Marimba3. Modern Marimba because he plays contemporary music — think Glass, Reich or Druckman — on a modern, five-octave marimba, and not the South American or African folk musics with which the instrument is often associated. Cubed, because he runs both the marimba and computer-generated music through an eight-channel cube of speakers that create what he calls a "three-dimensional, virtual" space.

He'll perform a variety of pieces on his portable rig Thursday at the Indianapolis Art Center, including one of his own compositions and a collaboration with composer Allan Schindler called "Precipice" (available on his debut album, *PRECIPICE modern marimba*, released in a five-channel, high-definition version intended to replicate the concert experience).

Each piece deploys computers differently. "Precipice" works from a pre-recorded soundtrack, with computer-generated sounds derived from recordings of Bartlett at the marimba (often processed to make the original sample unintelligible). Bartlett's own piece places the marimba and computer into a sort of dialogue — as Bartlett puts it, he can tell his computer that "when you hear me play notes of a particular volume, perform your choice of tasks X, Y and Z."

Bartlett discussed his role as an evangelist for computer-based music and the concert marimba in an interview last Friday.

NUVO: For starters, can you talk about the Modern Marimba cubed concept?

Nathaniel Bartlett: It's hard to name anything that's new in a succinct way. So the modern marimba cubed idea is the best way and the most concise way to describe what I do, although it's still imperfect. Instead of just referring to the instrument that I play as the marimba — where people might think of Central or Southern America or Mexican folk music — by calling it modern marimba, it they don't immediately know what that might be, at least they know that it might be something different than what their first impulse is. The cubed part just alludes to the fact that the computer-generated portion is existing in a true, three-dimensional virtual space. And that's critical to me. It's not just that they're computer sounds. And it's not just that they're spatialized, because you can do that in stereo. But that they're computer-generated sounds that are spatialized in a three-dimensional area which gives the audience a truly immersive experience.

NUVO: Can you take that apart a little bit, that concept of a true three-dimensional sound space?

Bartlett: Like with stereo, there are two speakers in front, so you can create the kind of left-right spatialization, and to some extent, the feel of depth by creating certain kinds of cues that make things sound nearer or more distant. And then with a 5.1 channel setup, the sound can move in a circle around you, which is great, but there's still no height element. So the rig I perform with is essentially 8.1, so there's a cube of loudspeakers around the audience, so the computer can create the impression that the sounds are coming from inside the audience, just into the audience, right, up, down, front or back.

NUVO: What kind of reactions do people have?

Bartlett: One of the reactions is that people feel they're more engaged with the music, because the music is, in a literal way, inhabiting the audience space, as opposed to a performer on the stage and the audience in their area;

the sound, the performer and the audience are all inhabiting the same virtual space that the sound inhabits. Also people that are more sensitive to spatialization and motion — for instance, dancers that are more used to the ideas of choreography — respond a lot to the choreography of the sound. Some musicians, because they aren't used to dealing with a spatialization perameter with sound, almost had to learn how to listen to it, or how to listen to that distinct component.

NUVO: In your press materials, you note how, in putting together your audio equipment, you're putting "the same attention to detail one would expect from a great acoustic instrument." That really puts a point on it: Sometimes when I hear about new audio technology, it's about reproducing that awful late-period Steely Dan record in all it's glory, whereas this is really about exploiting those technologies to create something new.

Bartlett: Yeah, exactly. What I found very interesting, I would go and hear, all across the country, these performers that use electronics or three-dimensional sound. Some of them would be in this multi-million dollar concert hall, and they'd be playing on a Bosendorfer concert grand, which was $120,000 or $150,000, and then they'd have these absolutely crappy speakers that sounded like garbage. There was such a cognitive dissonance because if you flipped it around — if you had an awesome audio system and then gave someone this out-of-tune upright piano and a couple of the keys didn't work, they would never stand for it. So I think of the reasons why some people in the classical music or concert community aren't receptive to computer-generated sounds is that, in the past, it has frequently been rendered so poorly as to be so different from the nuances of an acoustic instrument that people think, oh, computers can't do that, they can't make music with that level of nuance, and really it's just about the delivery medium.

NUVO: Moving to the acoustic element, what are the strengths and limitations of the marimba as a solo concert instrument?

Bartlett: I think to some extent, different people respond to different instruments, so certain people may find different instruments very powerful or very limited. But I really respond to the marimba, and I feel that it has great expressive potential as a solo instrument. Once you get away from a one-note, one-bar idea — a purely pitch, rhythm, grid idea of the marimba — and you get into more of the things that you can do with an individual bar, but the way you can orchestra the instrument, then you get into realms that are much more powerful and subtle. And, of course, what my cube rig allows me to do is synthesize, essentially, a true surround concert-hall reverb in any acoustic situation. To me, the marimba needs that kind of environment to do the things that I want to do on it. So it goes hand in hand, the electronics creating the environment that the acoustic instrument can thrive in. So I think, especially with the modern, five-octave marimba, and a nuanced approach to it — someone who really understands the marimba, as opposed to approaching it as just kind of a generic keyboard instrument, but as it's own entity — then you can really demonstrate some things that you can't do any other way.

NUVO: You talked about how people might think, when they hear "marimba," that's it's going to be South American piece. But really, the marimba has played a role in contemporary classical and several concertos have been written for it, right?

Bartlett: Oh, absolutely. But being in my little world, it always seems like every time I play something that includes a solo marimba performance is new to ninety percent, or ninety-five percent plus of the audience. There's a vast repertoire and it's something that's been happening for decades, but one of my big interests is taking this stuff — both the marimba, and in particular the electronics — outside of the laboratory. A lot of marimba playing and a lot of this kind of contemporary music and percussion happens within the universities and music conservatories and it can be a closed loop, where the students there are hearing the stuff but not necessarily the audiences at large. It's the same thing with more advanced, multi-channel spatialization setups: maybe a university or a computer music center has a room devoted to this, but they're really not bringing in outside audiences, and really trying to involve them. What I'm able to do with my mobile setup is go to art galleries and all different kinds of spaces that will have a more general audience, so I can expose them to the marimba and computer. So what I've found is that I'd like to just refer to it as the marimba, but I've found that this [the Modern Marimba cubed concept] is kind of helpful.

NUVO: What do you look for in collaborators and compositions?

Bartlett: When I collaborate — like with Allan Schindler or Greg Wilder — these are all people that I know well, so I don't hear a piece of music that I really like and then get in touch with the composer and try to commission them. The way that I've worked in the past is that, it's very collaborative in the sense that the composers and I will get together a couple times, and they'll come hear me in performance. I'll tell them my perspective and they will send me some sketches and ask if this works or this doesn't work, and I'll try it out and make some suggestions. That kind of relationship only works well when you know the person and your personalities mesh. That's how I like to work with the compositions that have been written for me.

Then as far as picking a piece that is just kind out there, that wasn't written for me, there's a handful of marimba pieces that I think are just gems, and most of those pieces are at least ten years old at this point. When I'm looking at that kind of piece to play, I think about pure musical concerns and just about nothing else. There's only a handful of repertoire pieces that I play on a regular basis.

NUVO: Can you take apart "pure musical concerns"?

Bartlett: I don't care when it was written or by whom, or if the composer was famous or not. There are pieces that I love to play by composers that no one has ever heard of, and there are pieces that I perform that are by composers that are considerably renowned. So I don't look for pieces like — Oh, Steve Reich, I'm going to recognize that name, or Jacob Druckman, I'm going to recognize that name. I also occasionally play repertoire that was originally written for different instruments. In that case, whether the music strikes me right, whether it's Bach or Satie or Webern, I just play it.

NUVO: You've got a couple well-known names on your CD — Glass and Reich. Do you think that period of minimalism produced pieces that lend themselves well to the marimba?

Bartlett: Certainly, with Steve Reich writing pieces that involved marimba, and he writes really intimate in a way that really works for the instrument, so that works out. As far as the Phillip Glass, I think this piece just happened to really suit the marimba well. I don't know if I can draw a connection between a certain era of minimalism and the marimba in general. The closest I can do is that the marimba has a beautiful sound quality, so there's an aspect in some of these minimalist pieces, where the music is more beautiful when a beautiful instrument is playing it, and the marimba, for my ears, works really well with the music.

NUVO: I was thinking, especially with early Glass, that there's a clean, bell-like approach that would fit different keyboard instruments or percussion instruments really well, even if there's not a marimba on the piece.

Bartlett: Absolutely. I think the fact that the marimba doesn't have a damper pedal like the piano does, so the bars ring over and blend into the next one, these scales blend into each other and it creates a nice aspect in a lot of that kind of music.

NUVO: I'm wondering how the marimba and electronic music interact in your pieces. Do they exist as separate entities, do they inform each other, are they ever unison lines?

Bartlett: There are all sorts of different techniques that I use throughout a concert program, everything from tape music — from the early days, where I'll be playing to a pre-recorded soundscape of a pre-determined duration — and then there'll be things I do during the concert that are one hundred percent real time, not just calling up sound files from a sampler in real time, but also synthesizer everything in real time, and then everything in between that. The computer music works, in general, in kind of diverse ways, but there's a couple main things. In creating certain soundscapes, it's kind of like an apparatus that I'm moving through; it's almost like if you were to have a particular stage setup, and then someone were to choreograph a dance composition based on moving through and interacting with this particular stage apparatus. And then there are other parts where I'm really playing the computer, and the computer has ceased to be a separate thing from the marimba. So I may do something, and there's kind of an algorithmic process that the computer uses to respond. For instance, I might say, "Computer, when you hear me play a note of a certain density, perform task X." Or it may be a little bit more loose, for instance, "Computer when you hear me play notea of a particular volume, perform your choice of tasks X, Y and Z." And then the computer becomes a participant in the direction of the music.

NUVO: And does that enhance the piece musically to have the computer respond or does it have more of a structural appeal, like an experiment to be attempted.

Bartlett: I think it really enhances it because I think of the music as — with the marimba and the computer sounding simultaneously — there are things that you can do on acoustic instruments that you really can't do on a computer, and then the opposite is true. So I feel like, when I'm working with a computer and in a more orchestral perspective, I kind of have the best of both worlds. I can do what I want to do in sound in a much more complete way.

NUVO: Is that technique — entering into a dialogue with the computer — going to be something you'll do at the Art Center show?

Bartlett: Absolutely. I'll definitely be playing the Allan Schindler piece from the record, which is the closest thing I do to a tape piece. And I'll also be doing my own composition which uses the real time synthesis in a very heavy,

prominent way. So there's those pieces that are on opposite sides of the spectrum and then there's stuff that's kind of in between.

NUVO: Could you describe what you try to do with your own compositions?

Barlett: To many people's ears, I think it would sound very similar to some of the other stuff that's on my record. My main interest is in creating computer programs that really respond to my performance in the same way as the marimba responds to my performance. So it really feels like, in many of my pieces, I'm playing the computer as much as I'm playing the marimba. So that's one of my main interests, but also that the computer, within certain perameters, is also making decisions. So instead of making these sort of through-composed entities that are very similar, they're more scenarios than compositions.

NUVO: What compelled you to work with marimba in the first place?

Bartlett: When I was young, I was studying all percussion, but when I first heard the marimba in really nice, concert-hall acoustics, it was so mind-blowing, I was drawn to it. When I started practicing it, I also found that it was incredibly difficult, so just naturally, I ended up spending lots of time practicing the instrument. So a combination of spending a lot of time practicing the instrument and hearing what it sounded like in this best-case scenario, after that it was a gradual process where I gravitated to that instrument, to the exclusion of all the other percussion instruments that I was playing at the time.

NUVO: Do you still find the marimba technically challenging, or do you find more of your challenges in working with electronics and computers at this point?

Bartlett: Both because I'm continually trying to do new things. With the computer, I'm always building new systems and new programs and getting more sophisticated, and I'm trying to do the same thing with my marimba performance technique and ideas of what the marimba can sound like and what it can do. In the sense that I'm still trying to push my boundaries, it still find it very difficult. And even simple music is difficult: there's a saying that Mozart piano concerts are too easy for students and too difficult for professionals; even simple music can be the most difficult on an artistic level.

NUVO: Why are you interested, in general, in seeking out and collaborating on new music instead of working from a repertoire?

Bartlett: It sustains my interests and I feel like it's an exciting frontier where you're experiencing new things. You could draw an analogy where some people are always wanting to move forward and try a new thing. There's just so much more a process of creation — being involved in the process of creation of new things, either in helping a composer realize their vision in kind of an architect/builder relationship, or doing things myself. Ultimately, as an artist, I have things to say, and I want to say them. To a certain extent, some of the repertoire stuff can be more of a craftsman approach.

NUVO: Do you teach?

Bartlett: I do. Not in an institution, but I maintain a private studio.

NUVO: What do you find rewarding in that?

Bartlett: The students come from all sorts of different backgrounds, some from musical families and some not from musical families. So their knowledge of music, by the time they get to my studio, can be all over the map. It makes me feel much more in touch with what's out there, and what's being taught, what people are aware of; what they are or are not listening to. Music was hugely important for me, not just in its own domain of music, but it kind of informed every area of my life; it changed the way I thought about everything. It's kind of hard to describe. So I can see how the music is participating in their life and their development.

NUVO: So if you're unaffiliated with an institution, is there a struggle with logistics and economics for your tours?

Bartlett: The equipment that I use — the electronics — aren't what I would be using if cost was no issue. That being said, I feel very good about the quality. So I was being very careful in finding the components that would give me the most bang for my buck. And instead of buying expensive cases and speaker mounts and stuff like that, I build all my speaker mounts, speaker cases and trunks for my computer monitors — and I build a rack case and case for my computer and tripods. By building my own equipment, I've been able to make it happen. Beyond that, I also run everything on the Linux platform, which means that the operating system itself as well as every last piece

of software I use is free.

NUVO: It never crashes on you?

Bartlett: No, it never has. It's by far and away the most stable platform; way more stable than Windows…anyways, I've had great success with it. It's an interesting community all by itself, with people working with it and creating music with it and creating music software for the platform.

NUVO: With your Super Audio CD release you pay a lot of attention to detail, with high-def audio and a 5.1 channel mix. And I was thinking about John Cage's total indifference to recording music — he urged listeners to adjust bass and treble and basically take control of the recording. Do you embrace any of that element of chance or listener control, or do you try to completely control the listening experience?

Bartlett: The particular concept of the record was to create the experience that you were at one of my performances in an ideal situation: the perfectly quiet concert hall environment. So that was the goal of the recording. The art lies in different places in different people's music, and what's important to one person may be irrelevant to another person. So what was really important to this record was a completely noiseless backdrop and also using recording technology that could capture the most minute details. What's great about the Allan Schindler piece is what's happening in these tiny, very quiet and nuanced movements, so if you were to get rid of that, it would be getting rid of the bulk of the music. Eve though, with a lot of music, the movements are very large, so you can get rid of some of the subtlety and it's not going to make much of a difference, like if you're driving in your car or something. Since the spatialization of sound is a critical component of the music, that naturally led me to the Super Audio CD format, which allows 5 channels of spatialized sounds.

NUVO: What have been your most successful or rewarding performances?

Bartlett: Sometimes when I play at certain universities, it seems that I'm just another person with their particular perspective, and people just sit in the audience, listening. And then sometimes I play at a university, and people just get really excited; maybe they've thought about incorporating electronics into their own performance. So in particular, I've had some very good experiences where I'm performing for other performers that have maybe seen or heard something new, or maybe they've imagined something that they've seen me do and now they see that it's a possibility and they get really excited and ask a lot of questions.

That's one, and the other would be performances where people that haven't heard this kind of music in general really respond to the spatialization. I think one of the ironies is that musicians that are trained to listen in a certain way, it takes them a while to get used to the spatialization, but sometimes for a general audience, people get it immediately and they like it a lot, and they find a great sense of drama. I usually try to give concise concerts without an intermission, so it's just one block of music, an experience, and then it's over. I feel that a lot of people find that to be a new experience and they're really open and please by it, as opposed to a lot of people's experience with new music, which is that they leave the concert hall in the second half when someone starts to play something new. The best performances are when I can create a good reaction to this kind of music that's new for someone.

NUVO: How do musicians struggle with the spatialization concept?

Bartlett: It's not so much that they struggle with it. It's just unless haven't pointed it out, they almost haven't thought to listen to that. If you're playing a Beethoven piano sonata, you're not dealing with spatialization; so it's been wholly lacking in their music education. I don't remember, in all my music theory course, through both my undergraduate and graduate time, I don't remember ever talking about spatialization. So it's not that they can't understand it, but they know so much about other things and not much about this. They lack the language to talk about spatialization but they have a lot of tools to talk about other aspects.

NUVO: When did you get interested in spatialization, especially if you didn't learn it in school?

Bartlett: Well, it wasn't in the theory course. I first got into in computer music when I was an undergrad at Eastman, which was where Allan Schindler taught, and I was taking his computer music course. I first started dealing with spatialization in the context of stereo, where we were dealing with programs that would obviously pan things left and right, but would also create the effect that you were in a virtual acoustic space and things could be positioned near or far. When I was working with sound, I was thinking about where I would want sound to move and where would I want it to be spatialized. Then I started to be conscious of that — just as you're concerned about the pitch and timbre — and spatialization became another category that I was always thinking about. I started out with stereo, then went to four-channel, which was great, but still horizontal. I really wanted to work in true three dimensions, because that's all the dimensions we have. And I thought, whether or not my gear is the best or not, if I can do it in 3-D, that would be a proof of concept; a demonstration that we are now in a three-dimensional world.

So when I finally upgraded to eight speakers, I felt like I had truly arrived at an artistic space, which is where I want to be and where I was working.

NUVO: Is there anyone else touring with your kind of rig?

Bartlett: I don't know off the top of my head. I'm sure there are people travelling with multi-channel rigs. I don't know if they're using the same kind of cubed rig run by a set of principles called ambisonics. It's certainly happening in various computer music centers. I think it'll get more prevalent in the future.

NUVO: Because the costs are less prohibitive or people are learning about it.

Bartlett: Exactly. Like any new avenue, there will be a certain percentage of people that are really turned on by it, and who will start to pursue it. I think it's still new enough, not in it's existence, but in it's existence in the public arena, that there's still a lot of growth that it will experience.

NUVO: It seems like what you're doing could make for a really great chill room or other ambient music setup. Is that something that interests you, or do you prefer a concert music setting?

Bartlett: The focus has to do with the kind of music itself. The Allan Schindler piece, "Precipice," wouldn't work as ambient music. But it's funny that you bring it up because I will be giving an ambient music concert here where I live in Madison in a couple months, and it's something that I had been thinking about doing for a long time. The basic way that I'll have it set up is there's a performance space that has an all-wooden interior and has natural light. So we'll do it on a Sunday afternoon, have it be three hours long, so audience members could come and go as they please, and the seating would be set up in cabaret tables, so people could sit and chat, read the paper, have coffee, do whatever they want to do, and the music would be an ambient backdrop.

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