

Puppet Con 2020 address -

I'm Scott O'Brien; a composer and sound designer focused mostly on theatre (though temporarily at liberty like the rest of our industry)...I fell into theatre, and sound design via an unexpected path; I'd been a concert musician in NYC, performing my own works (mostly post-modern classical; very serious music) when, after one performance I suddenly quit, not wanting to be onstage any longer...a friend called the next day, asked if I composed for theatre, I said "yes!"...(not having been in a theatre since high school) and I've composed and designed for theatre ever since...and not been on stage again in the past 29 years...

Theatrical sound design is a multiplicity of parts; it's sound systems (speakers, amplifiers, microphones, mixers and processors), sometimes selected parts and installed, sometimes, whatever's on hand in the theatre you're in...it's environments, (dark and stormy night) and sound effects (phone rings)...it's music (composed, created or "pulled" for the tops and bottoms of acts or scenes, underscoring to add texture to an actor's performance, music for preshow, for bows, for audience exits...it's communication systems (headsets, wired and wireless) to allow Stage Managers to call cues to board operators and technicians throughout the theatre...

Not all sound designers also compose music (though I do); not all sound designers install or manipulate sound

systems (though I do)...the more control I have over the sonic elements of a production, the easier it is for me to collaborate w/the director, designers, actors & technicians.

If you're responsible for the music and sound FX in a production I think it helps to think of those as two completely different aspects of the production...so, when I design effects that's all I think about, when I compose music, the same...when both jobs are complete *then* I can think about how these elements integrate into the larger production and how to deliver them through the sound system.

So, where do sound effects come from?

You can either record your own effects from tape or digital recorders, (or from our phone, if need be) or utilize effects libraries, archives of sounds of all kinds available for sale as well as for free, many on the internet.

The purpose of sound effects is to provide an element of realism not otherwise available in a theatrical production (the play takes place at the beach, or its a dark and stormy night)...while other elements contribute to the realism of a given moment, sound is the single element that can instantly place you into that environment

Now, for me sound design should either: *tell me a story, or solve me a problem*...everything is artifice and as a designer I have no time for artifice...so, *tell me a story*...as

an example, musical choices can determine time, place, mood of a scene, character or entire play in an instant...or, *solve me a problem*...my play takes place on a beach on a summer's day...by adding ambient effects of children playing, waves crashing, carousel and boardwalk sounds I can take you from the dark, and put you on that beach... all of this to support the actors and to move the story forward in an engaging manner...

Music functions in much the same way; as I said; the correct musical choice can inform an audience of a play's period, a character's attitude, whether something should be viewed as comedic or threatening or to reinforce a message the playwright is trying to get across...choosing, rather than creating or collaborating on music can sometimes be problematic, since popular tunes already create emotions and responses in audiences and may not be what you want in your play (songs with lyrics can be most challenging in this regard, since the lyrics can mean something quite different in the context of a song than they do in the context of a play (and, those sung lyrics can make understanding (or even hearing) actors' lines difficult)...if you have the means and opportunity to collaborate with a composer on music for your show it can change and elevate the work in ways you cannot predict or imagine (which for me, is really the fun part)...

Collecting, recording and editing music and sound effects involves (these days) computers & software;

There is a wide variety of great software available on a

variety of platforms...among them...

Audacity (<https://www.audacityteam.org>) for Mac and Windows is a free, simple audio editor which you can use

GarageBand (free on all Macs and iOS tablets & phones) again, easy to use

Logic Pro X (for Macs, not free) is an enormous step up from GarageBand and pro-level software

Ableton Live (for Macs or Windows, not free) is an interesting software that works differently from the other recorders and editors but is well worth exploring...

The software (or any technology) you use is really not that important, other than that it makes sense to you... people get very hung up on the "right" software or equipment...whatever works for you, whatever you can afford or sometimes, whatever's available, is what you should work with and learn from...

Today, most theatre companies use computers and software to play back sound FX & music (through mixing boards and sound systems)...

QLab (www.figure53.com) is a Mac-based program that has become the industry standard from Broadway down to the smallest community theatre or grade school production. A simple stereo version is available for free download, and multi-channel (many speaker) versions are

available for purchase or for a very nominal rental fee...

QLab is a *very* versatile program that I've used since version 1 was released; each new iteration has new functions and the current version 4 will not only run audio playback (starts, stops, looping, fades in or out) but video and still projections (again, with control over fades in and out and well as transparencies and cross-fading) and can control the programming and running of theatrical lighting systems...QLab can also automating live microphones (muting and unmuting)...all this from a simple interface and that's remote controllable from an iPhone or iPad, as well. There's not time to show you all that QLab can do in this presentation, but the QLab website has very useful, easy to follow how-to videos and there's a wealth of material on YouTube...I highly recommend looking into this software if you have access to a Mac...

Figure53's GO Button app for iOS allows playback of audio files from an iPhone or iPad...not as sophisticated as QLab, but you may not need all that horsepower and a portable app may, for your production be just what's called for...

Although Macs dominate the sound design world, there are software packages for Windows and for tablets, as well...

ShowCueSystems is a Windows-based software, demos are available as well as purchase and licensing...prior to switching to Macs and OLab, this is software I used for

years, both in NY and regionally for all manner of productions...

MultiPlay is also a Windows-based software, and free to use...

Links for all of these will appear at the end of this video...

Let's talk about practical applications....Whether delivering music, environmental ambience, spot sound FX or merely amplifying your own (and colleagues) voices, correct speaker placement is *crucial* whether you're using small, portable speakers, accessing a complete portable system or using a theatre's equipment. Speaker placement and mic'ing of performers and/or musicians are intertwined and should, be considered together.

So, about mic'ing performers: when I designed and scored an off-Broadway shadow-puppet and live action version of Kipling's *The Jungle Book* a few years ago we had the advantage of using an established theatre space in NYC w/a more than adequate house inventory of loudspeakers and amplifiers...since *Jungle Book* was running in rep (that is, alternating) with another production (and I was designing and composing both) it was easy to design a sound system w/multiple speakers in the air for FOH, at the mid stage point, and have other speakers upstage on the deck, along with a dedicated subwoofer plus speakers behind the audience in the ROH...I divided the deck into 3

zones; downstage, mid stage and upstage...music for songs and transitions was played through the FOH (for both shows) and the mic'd actors were also sent through those for *Jungle Book*...the mid and upstage cabinets allowed for spot effects and, most importantly environments and ambient effects to be projected toward the audience but first *past the performers* so that they would know "where" they were in a given scene and, since they could hear the ambience, know how *much* they had to project to be heard clearly by the audience. Micing was incredibly important for *Jungle Book*, since the performers (save the onstage actors) were unseen behind a scrim, and the scrim also served to further obscured their voices.

The actors manipulating the puppets also voiced those characters and, though they were frequently grouped together, consistent volume and projection (as actors were not always, or even frequently facing front) was an issue. I opted early on to body mic all of the cast *upstage* of the scrim; those actors downstage and visible were not mic'd; the music playback wasn't so loud that it obscured their voices, and since you could see their mouths while they spoke or sang, comprehension was greatly enhanced...with our upstage performers, we were essentially making radio, so clarity of enunciation, diction and projection were paramount. I had a modest rental budget and so rented a half dozen wireless body packs and mic elements...the elements were attached to performers eyeglasses, or through small clips that hooked over an ear and placed the mic at about the level

of the cheekbone...there, it was secured with surgical tape. While I had a dedicated board op in the booth who played music and effects cues (through the QLab software I mentioned) and was responsible for activating/muting actors as the play progressed, I didn't want someone at the board constantly making changes to the performer's levels...once you get into that (and theatre is *very* different from concert type performances) the board op is essentially the director of the show; how he manipulates levels can greatly effect the way a character (or a play is perceived)...I prefer to setup through the tech process, arrive at useable levels for everyone and then *leave them there*...it's up to the actors to work together at levels that they can all be heard at, and if one needs to be louder in a scene, they can *raise their voice* rather than having the volume raised for them...your performers work together better and there's less anxiety about what someone in dark is doing with your performance...I recommend the same if using live musicians...use an absolutely minimal number of mics for the musicians, set a level, and forget it; it's the musician's responsibility to play harmoniously and at a reasonable level and taking that responsibility from them flattens their performance and just makes it less fun, and art, difficult as it may be, should be fun, don't you think?

I don't want to get into brands of wireless mics, but suffice it to say, Sennheiser, Shure, Sony and Audio-Technica, (to name four) all make quality wireless mics, transmitters and receivers for sale or rent...

It's worth noting that rentals of body mics aren't cheap, but the current technology is reliable and the ability to work unimpeded, without wires has been a godsend...

All of that said, sometimes you have to think outside the box because reality (and budgets) won't allow anything else...if you're doing a performance and only have a loudspeaker (or two) rather than the more multitudinous setups I regularly use and there's FX or music along with your voice, try and get the speakers *behind you*...you won't have as much headroom for your vocal mic's volume, but *will* be able to hear music and FX in their proper context and know then, where you (sonically) fit in...

There are cheap, wireless mics out there (Amazon has a ton) and I would direct you away from them *as a rule*...that said, I'm using one for an effect next summer in a festival out west where the mic and its receiver will be not more than 30 ft apart and in direct line of sight...assuming no one else in the immediate area is broadcasting, it should work fine, and is cheap enough that if I'm wrong, it won't break the budget...the same goes for things like Bluetooth speakers...the rule for utilizing Bluetooth is *just don't*...it's unreliable, and the distances for transmission are inadequate...there's a company, though (Anker Audio) and you can find their BT speakers and earbuds on Amazon...prices are very good, and I've got a couple of their cabinets that I tested at a university theatre, got 100ft of quality transmission, and at 50 ft, could even project through a wall...I placed it in an onset radio and (via QLab)

played radio cues throughout the run of the production without incident...the unit has rechargeable batteries and a 24 hr runtime, so we were never concerned about power loss...All this is to say that, theatre, particularly of a lower budget requires imagination and ingenuity and sometimes doing the very thing you've been warned against...I'd love to be in a situation where I can always throw money at a problem, but I'm not, and having outside the box solutions makes the show run, and forces one to think differently about problem solving, and I like that...

When you're doing this all yourself, you *have* to have someone else listen (from the audience) once you're setup...you, as a performer cannot be everywhere at once and if there's a Stage Manager, it's not their job to comment on your performance...their job is to make sure it runs smoothly and without issue...*have someone you trust listen, and if they have a comment, listen to it*...it took me years as a solo performer of concerts in NY to learn that lesson...just because you know what you're attempting to achieve, doesn't mean you'll recognize it in differing venues...

Which brings us to: don't get hidebound on levels when you setup (*but this was the correct level last time!!!*)...all theatres, and all sound systems are different...when you setup you *play the space, not the show*...every space has a different geometry and acoustics, not to mention sound systems and if you don't accept that, you'll never give satisfactory performances...another reason to have a

second set of ears with you, if possible...Theatre sound design is not unlike baseball; you know the rules and how the game is played, but each stadium is different and so certain of the mechanics of game are dependent on variables in that stadium that do not change, but that you cannot control...

I believe this covers the general concepts to which I wanted to introduce you; if you have questions or comments, or just need clarification on some of the points I've raised, I'm happy to answer them for you now, for the next 30 minutes or so...

Thanks so much for your time and attention, I do hope this was of some small help in your ongoing projects...

And please, wear a mask and stay safe out there -

Scott O'Brien
Sept 2020