

PULLING BEAUTY FROM RESTRAINT

Inside the sound design
for a baroque opera.

by Kirsty Gillmore

“D OES AN OPERA need sound design?” a lighting designer colleague queried when I told her about my latest job as the sound designer for a re-discovered baroque opera staged in a 19th-century music hall. It’s a fair question. How do the elements of sound design, specifically amplification and pre-recorded soundscapes, fit with a traditionally amplification-free musical production?

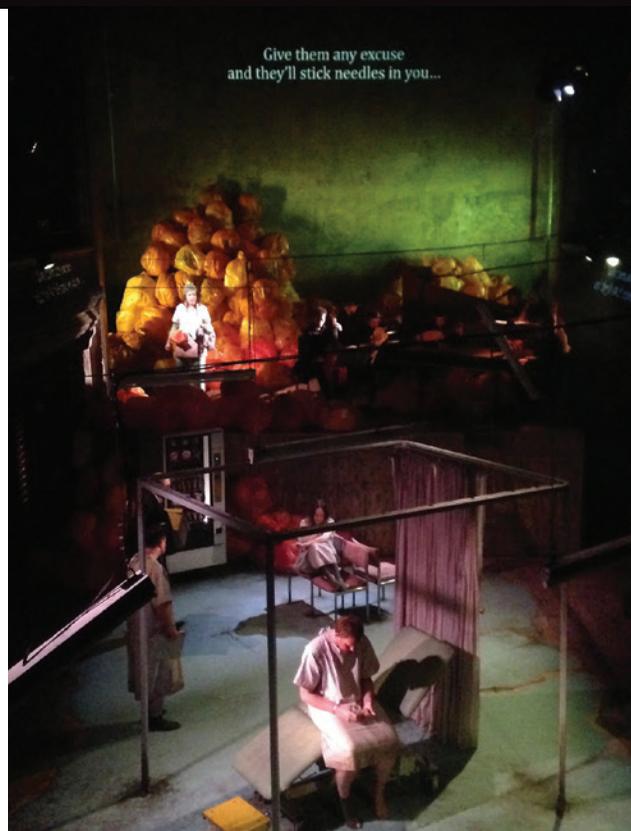
Pre-recorded sound effects have been used in opera for decades, especially in large dramatic works, as recorded sound FX replaced practical effects like people shaking thunder sheets for Wagner and thumping church bells backstage for Puccini. Modern opera has also embraced contemporary sound design techniques alongside other high-tech elements.

Amplification has also started to creep in as opera moves outside of traditional opera houses and into larger modern spaces designed with amplification in mind. However, the opera that I faced was neither grand nor modern. My job was to create a sound design for the first-ever performance of a 17th-century *dramma burlesco* opera, performed by an early music ensemble playing period instruments, set in a run-down modern mental asylum and staged in a 19th-century music hall.

It was a unique challenge.

A LOST MANUSCRIPT & A DYSTOPIAN VISION

Back in 2003, musicologist Naomi Matsumoto found a forgotten 17th-century manuscript score with the title “l’Ospedale” (The



Hospital). The libretto, set in a mental asylum/hospital, was written by 17th-century Italian poet Antonio Abadi; the composer was unknown. The musicologist suggested the work to baroque collective Solomon’s Knot in the UK in 2008, and they developed the opera through multiple workshops over several years.

By the time I became involved with the production in October last year, the opera had been set in a run-down 21st century dystopian mental institution with an intentionally immersive feel. The stage area was thrust (open on three sides) and in the stalls (ground floor), with the ensemble on the raised physical stage of the venue.

The director and musical director (MD) wanted the sound design to reinforce the contemporary setting and bridge the gap between the baroque score and the modern design. As well as a pre-show soundscape, I needed to produce a pre-recorded prologue and epilogue, in English, of a modern-day Minister of Health presenting his theory on health reforms (to replace Abati’s original speeches by the “God of Health.” We also decided to underscore some of the key moments in the opera, including two unaccompanied madrigals, a “mad” scene, and what the stage manager charmingly termed the “urine ballet” scene, where one of the characters submits a urine sample after submitting to his fate of staying in the hospital.

For musicals, the paramount concern for the sound team is that every line (sung or spoken) is distinct. In opera, the music in its entirety is the central concern, and everything else in the production comes a distant second. So it made sense for me to start my job with where the music would be heard (the space),

and how (acoustic or otherwise). After seeing a few runs of the entire opera in rehearsals, my next stop was a site visit and chat with the musical director.

THE VENUE & INSTRUMENTS

Wilton's Music Hall in East London is the world's oldest surviving music hall, built in a time when live performance was a primary form of entertainment and amplification was something you did if you shouted loudly. As soon as I walked into the main space and performed a few initial clap tests to assess the RT60, I knew the venue would do most of the work for me regarding being able to hear the music. As *The Arts Desk* review put it, the acoustic is, "studio-clean for solo singing, while ensemble passages ring with church-like resonance. Those 19th-century builders really knew what they were about."

There was only one harpsichord used as accompaniment in rehearsals, and I wouldn't hear the full ensemble until the dress rehearsals. I had to, therefore, call on my knowledge of (and happily, degree in) Baroque & Renaissance music, and the advice of the MD, to assess whether the musicians would need amplification. The ensemble consisted of two harpsichords, viola de gamba (a baroque version of a cello), violone (baroque double bass), baroque guitar, and a lute.

REHEARSALS

Given the musicians would be elevated and behind the singers, I initially thought I would need to close mike the quieter string instruments (lute and guitar) to make them heard above the singers and the harpsichords. When budget constraints prevented this, I trusted that the timbre of the instruments would make them easily audible in the mix of sound, and thankfully, I was proved right. In fact, miking the lute and guitar would have added nothing to the performance. Proving that sometimes the easiest solution is the best one!

With the venue assessed and the ensemble requirements scoped, my next task was to introduce the pre-recorded elements of the sound design and decide on speaker placement.

THE DETAILS

The bulk of my design centered around the opening of the show. My brief was to create an ambient hospital soundscape which built to a climax as the singers entered, changing to a gentler version of the same soundscape which played under the first unaccompanied madrigal. This then cross-faded into a pre-recorded prologue of the Health Minister addressing modern-day parliament, with raucous "hear hears" merging into the opening chords of the opera.

Using the beautifully squalid set and stark lighting as inspiration, I built the pre-show soundscape around layers of ominous drones, electric hums and affected hospital sounds of ventilators, surgery and heartbeats. The world of the opera was virtually extended to suggest the hospital outside of the physical space,



footsteps echoed in distant corridors, light bulbs flickered and snatched pre-recorded bars of madrigals were heard briefly from individual speakers, cut off by door slams.

Gauging levels for pre-show ambience is tricky. Too high and it becomes intimidating (unless that's the effect you want), too low and it risks being drowned out by the audience chatter. I don't feel I ever got the levels quite right, but the intimidating atmosphere of the hazy lighting state and "aggressively unlovely design" helped. Having a show that looked and sounded like an apocalyptic asylum overrun by zombies did, at least, keep the sound of the pre-show audience down to a subdued murmur.

Knowing that the heavy drones of the pre-show soundscape would muddy the purity of the first unaccompanied madrigal, I stripped back the layers to leave the gentle sound of dripping water and a very low-level electrical hum to continue the suggestion of a run-down institutional space. We solved the problem of how the first singer pitched the initial note by putting a pitched tone into the speaker nearest his entrance point. At the right level, amongst the other interwoven drones and sounds, another note was imperceptible to the audience and audible enough for the singer to pitch his first note.

LOUDSPEAKER PLACEMENT

An immersive soundscape deserves an immersive physical design, or as immersive a design as I could create given the budget. I arranged the seven loudspeakers I had at my disposal accordingly. I placed four surrounds in the stalls (two RCF compact models fed from a Yamaha P7000S amplifier, plus two active Yamaha MSR400 loudspeakers). Two more loudspeakers covered the balcony (Eurolive E1220s fed from a Yamaha P3500S amp), and there was one sub (RCF S8018). My final loudspeaker (another Yamaha MSR400) positioned behind a working vending machine to provide a steady vending machine-type hum.

Like many historical venues run by an independent charity, Wilton's relies on donated equipment and like many independently-funded productions, the budget for sound was limited. Aside from a new audio interface, I worked with what the venue could supply. The desk was a Yamaha O2R digital mixer, which I hadn't used since the early 2000s and never outside of a studio, but at the end the day, signal flow is signal flow and it was nothing a few cables and logical patching couldn't fix.



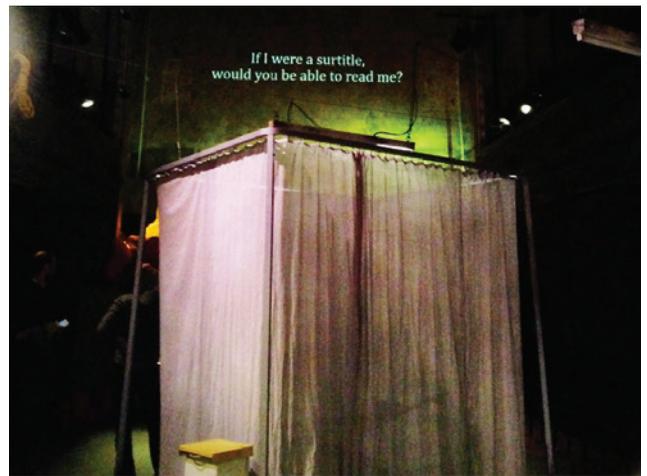
LEVELS & CHALLENGES

At the first set of tech and dress rehearsals (read on for why there was more than one set), I met my first challenge: to make my layered sound design work sonically with the baroque music. Levels that I had set painstakingly in the Stage & Piano tech were suddenly overbearing in the Stage & Piano dress rehearsal. And while I altered them, I had to bear in mind that we were setting the levels to work with one harpsichord and the six singers – but this was not the full ensemble. Would they work when we had two harpsichords and another four musicians, plus the singers?

Something that is specific to opera that lighting design colleagues had warned me about is the double tech and dress rehearsal ses-

sions. An opera will have tech and dress rehearsal sessions specifically for the director to work on the acting direction with the singers, accompanied by piano (or in our case, harpsichord) only, called Stage & Piano rehearsals. It will also have different tech and dress rehearsal sessions for the musical director to work with the full orchestra/ensemble and singers: Stage & Orchestra rehearsals. During these sessions, the technical teams are not allowed to stop any of the proceedings to go over any technical issues.

I had to apply any changes to levels noted in the Stage & Piano dress rehearsal on the fly during the Stage & Orchestra sessions, often without hearing the result. I was most concerned about how this would affect the Prologue and Epilogue, which were pre-recorded speeches (in English) set to the sounds of a



contemporary British parliament (House of Commons) sitting.

Both of these speeches, and the accompanying parliamentary sound effects, were instrumental in establishing the context of the opera and aligning themes of the 17th century libretto with the current political climate (and thus the modern setting). They had to be heard clearly above the music, without drowning it out. As I was urged by some of the production team to make the jeers louder, I had to consider carefully the impact on the music and consider which was more important for the audience to hear.

By this time, some of my levels on QLab (multimedia playback cue-based software designed for theatre) had crept lower and lower, and issues with gain structure became apparent. Having set the levels on the O2R too high, I now had a noticeable amount of hiss coming through the four surround loudspeakers. Back I went to adjust levels painstakingly on the desk and accordingly, all the levels in QLab. By the start of the Stage & Orchestra dress rehearsal, I was taking my best guess, trusting to my work so far and reminding myself that I could always fix things in previews.

I felt I spent most of my time on *l'Ospedale* filling in spaces with sound, then paring back until it was just present enough to give a scene weight or context. I imagine with the kind of opera that involves grandeur or significant visual or aural impact, the sound design might have a more central role. In this case, considering the subtlety of the music, allowing the sound design

to shine through would have reduced the impact of the performance. It was enough for me that the modern soundscape added to a baroque opera fitted so naturally as to be unnoticeable. **LSI**

Kirsty Gillmore is a sound designer, engineer and voice artist based in the UK, with experience in post production, live, broadcasting, and sound design for theater and film. Read more from her at SoundGirls.org.