

Theater's Alive With The Sound Of Laptops

by Jesse Green **The New York Times** April 2007

Among the uncommon pleasures of the 2003 Broadway revival of "Wonderful Town" was that you could actually see the orchestra, arrayed like a decorative garland of brass and polished wood across an onstage bridge. Another was that there was enough of an orchestra to be worth seeing. Nearly matching the original 1953 instrumentation, the show's producers sprang for a hefty complement of 24 musicians. At least at first.

After a while, though, as is not unusual with shows anxious to maximize profit, the ensemble was cut back to 20, still well above the Al Hirschfeld Theater's house minimum of 14 (including conductor) as stipulated by agreement between the musicians union and the league of Broadway producers. If not exactly a symphony, this was a number capable of producing, with amplification, a moderately rich sound not unlike what the show's composer, Leonard Bernstein, might have imagined when he wrote it.

But audiences attending a performance of the production's nonunion tour -- which stopped last month at the Tilles Center on Long Island and continues on the road through May -- are seeing, and hearing, something quite different. The orchestra is down to 12 traditional instrumentalists, including four reeds and three horns, with only a lonely violin and cello to sweeten the mix. So why does it seem as dense as it did on Broadway? Why is the string sound so big, if not exactly Bernstein-y?

That would be the work of musician No. 13, sitting behind the reeds at a Qwerty keyboard attached to an ordinary PC running a software program called Notion and wired into the sound system. This copy of Notion has been loaded with all the string parts for "Wonderful Town," broken down in individual instrumental lines that can be muted or played at will, all triggered by a finger tapping the rhythm on any key in the A-S-D-F row. If the conductor speeds up, so does the finger, and so does the music Notion produces. If the leading lady lingers over a note, or skips six bars, the finger can too.

Small as it is, that one finger, doing the work of hundreds, is the center of a controversy now playing out in amateur theaters and national markets and coming soon to Broadway. Already the musicians union has dug in its heels against the use of Notion and similar products. "We're not Luddites opposed to technology," Mary Landolfi, president of Local 802, the American Federation of Musicians, said recently. "But we feel that people come to the theater to hear live entertainment, and they should have it."

Critics have been denouncing nonlive -- or, more accurately, nontraditional -- instruments in Broadway pits for decades. At first the complaints were about the awful or just unwelcome sounds they made. Electric guitars and organs, imported from the world of pop music to go with the pop scores of the 1960s, offended purists, who mourned the loss of European-style orchestrations, heavy on strings and light on rhythm. When synthesizers started replacing instruments that producers wouldn't pay for or that couldn't fit in the ever-shrinking coffins to which orchestras were consigned, criticism shifted to the poor quality of the mimicry. Synthesized trumpets sounded like oboes and oboes like burglar alarms.

The mimicry has improved tremendously in recent years. If the current production of "The Sound of Music" in London has a rich, symphonic sound, it's not just because of the string players (there are only 6, reduced from the original 12); it's because of three keyboards programmed to sound like strings. This feels wrong, but the proof is in the experience; and at least such patches, as they're called, require live players. At many small ballet companies around the United States, the orchestra is a tape, and in many schools putting on musicals, it's a pirated, karaoke-style CD. Even Broadway shows use click tracks and prerecorded accompaniment for parts of some

numbers.

But Notion and its more established competitor, a product made by Realtime Music Solutions and marketed under the names Sinfonia, OrchExtra and InstrumentalEase, represent a huge advance on those limited technologies. They are therefore a huge threat to advocates of entirely "live" music. For one thing, they are cheaper and more compact than older systems, which required a vanful of equipment and a dedicated tech nerd and cost thousands of dollars a week to rent. Notion comes on CDs that sell for about \$600.

These products are also cheaper and more compact than human musicians. They do not get sick or have bad nights. And after years of gradual improvements, their sound is now good enough to fool many nonexperts, especially since they are almost always used, as recommended, alongside traditional instruments. Their processing capacities are large enough that details of articulation and attack, vibrato and decay, can be reasonably approximated, if not gorgeously rendered. (Brass and bass drum, I mean you.) And the notes themselves are no longer digitally created but are based on thousands of samples from real instrumentalists. Notion's main sample source is the London Symphony Orchestra.

Why London? No American ensemble would cooperate. Nor has Notion been used on Broadway. The closest it's come was an industrial show for Enterprise Rent-a-Car at the Broadway Marriot Marquis hotel in October, where Sutton Foster and other musical stars sang with a 26-piece orchestra pumped up to symphonic density. No one seemed to notice the ringer.

Sinfonia has come even closer. In 2004 it drew protests when used (along with several traditional instruments) to accompany a short-lived Off Broadway musical called "The Joys of Sex." A year earlier, in anticipation of Local 802's strike against Broadway producers, shows including "Les Miserables," "Thoroughly Modern Millie" and "Oklahoma!" prepared Sinfonia versions of their scores as a precaution -- and perhaps as a provocation. But no audience ever heard them; the strike lasted four days.

The resulting contract expired three weeks ago, on March 4, but the house minimums stipulated within it remain in effect through 2013. Still, because those minimums are often breached by "special situations" (almost anything can be a special situation), and because emulation technology is not specifically banned in the old contract nor likely to be banned in the new one now being negotiated, the union remains wary. In picketing and press releases, it refers to products like Notion and Sinfonia as "virtual orchestra machines": a kind of alien in the pit. (Jeff Lazarus, the chief executive of Realtime, prefers the term instruments, and said the union's tactics amount to "musical gerrymandering.") Ms. Landolfi, of Local 802, further asserts that the technology interferes "with the ability of creative teams to decide artistic issues without undue economic pressure."

Maybe. In an informal poll I asked members of such creative teams to consider this: You're reviving a show that depends on full orchestral sound, like "South Pacific," which is in fact being revived in 2008. The maximum number of instrumentalists that the budget (and the pit) can accommodate is 20, far fewer than the original 31, but higher than the theater's minimum of, say, 15. Having preserved jobs by hiring those 20 musicians, would you then consider using a technology like Sinfonia or Notion to push the sound to symphonic levels?

Music directors were clear that they would not. Ted Sperling, who conducted "The Light in the Piazza" with 15 acoustic instruments, said, "I'm a believer in making the most with what you're given, not pretending that something's there when it's not." Paul Gemignani, who will lead a "South Pacific" with full symphony orchestra at the Hollywood Bowl this August, agreed, saying he'd "respectfully bow out" if the producers wouldn't reorchestrate for "all live instruments." He added, "To me it would be like doing 'Death of a Salesman' with one great big star and the rest of the cast on a recording."

Mr. Gemignani has lived and died by that sword; the "Pacific Overtures" he conducted at the Roundabout in 2004 employed 7 musicians, down from 22 in the 1976 original; though the 7 were live, they sounded skimpy and, as processed through the sound system, even artificial at times. For that reason most producers I surveyed and, surprisingly, most composers, weren't so quick to disavow the new technology.

"A machine-generated orchestra isn't such a terrible proposition, if the music director and sound designer work in coordination," said the composer Michael John LaChiusa. "Do the machines provide the human touch of a live musician? Not to my ear, but because of miking, many of the live pit orchestras on Broadway sound canned already, sometimes even pre-taped. To use or not to use a machine to supplement, or even replace, the orchestra for a revival isn't an ethical or moral argument. It's not even a sentimental one. It's a question of aesthetics."

Many artists, or their heirs, seem to have answered that aesthetic question. Sinfonia has now been used in the West End (but not the Broadway) production of "Les Miserables" and in American non-Equity tours of "Oliver!" and "Miss Saigon." The Gershwin estate authorized a Sinfonia-enhanced production of "Porgy and Bess" that visited minor markets from 2001 to 2005. Notion can be heard not only in "Wonderful Town" but also in ballet and Meat Loaf concerts everywhere.

Whether jobs are being lost as a result is a matter of interpretation. Yes, "Wonderful Town" has 11 fewer musicians now than it did when it opened on Broadway, but the show probably wouldn't have toured at all had it been required to maintain the full complement. Keith Levenson, the production's music supervisor and a paid adviser to Notion, said he is in that sense saving jobs, not cutting them. (He pointed out that Notion too is played by a live musician.) But union representatives call such arguments naive; what if the producers of the next "Wonderful Town," having heard how this one sounds with Notion, decide they can only afford nine musicians, or five?

Some see the slippery slope as most precarious not at the uppermost levels of production but at the lowest. Ms. Landolfi complained that the manufacturers are marketing the technology heavily to schools. And it's true that after years of experimentation and internal debate, both R&H Theatricals (a division of the Rodgers & Hammerstein Organization) and Music Theater International, leading licensers of shows for amateur and stock production, now allow customized versions of Sinfonia to be rented with some of their properties. For rehearsals customers can use R&H's AccompanEase or M.T.I.'s RehearScore. For full performance there are products called InstrumentalEase and OrchExtra. Perhaps the most telling portmanteau is one that was proposed in an employee contest to name the orchestra product at R&H: PitBull.

But philosophical anxieties (what would Rodgers, he of the sweeping string tuttis, think?) and musical misgivings eventually gave way to technical advancements and demand from amateur licensees, especially schools. Customers now pay about \$1,400 for a four-week rental, which includes a two-octave keyboard, connection equipment and an Apple MacBook preloaded with the score of the show being performed. (M.T.I. offers 18 of its most popular titles, R&H five, with many more in development.) A knowledgeable musician, especially one savvy about computers, can have it playing within minutes.

Customers clearly love the result. Peter Hoopes, director of technology as well as conductor of the annual musical at St. Andrew's, a co-ed boarding school in Delaware, said that in previous years he'd had to make do with whatever instruments his volunteers happened to play. This year, having ordered InstrumentalEase for a production of "Annie Get Your Gun," he turned on the MacBook, clicked "mute" for the instruments he had in the pit and produced the remainder of the orchestration by tapping while he conducted. He was astonished, as were his musicians.

"When they first heard it," Mr. Hoopes said, "one of the comments was, 'Well, I guess you don't

really need us here anymore.' And it did cross my mind that if I wanted a perfect sound, I could just eliminate them. But we're a small community, and part of the thrill is that everyone's contributing. On the other hand, it was nice knowing that if one of the players got sick, I could just unmute that part and go right on."

No one did get sick, and by the time "Annie Get Your Gun" opened on Feb. 23, Mr. Hoopes said, not only had he created a seamless ensemble featuring sounds he could never previously have mustered (try finding a harpist at a boarding school) but his 10 instrumentalists had improved by trying to match the quality of the software.

This is the ideal situation; other schools may prove more willing to ditch their squawky pubescent clarinetists. The licensors' requirement that live musicians be used with the software is largely unenforceable. It's partly for this reason that the union opposes these products even at the amateur level. "We think they really undermine the idea of music education," said Ms. Landolfi, "which undermines the audience for Broadway and classical music. Now the schools can say, 'We don't need a music program because we can just buy this very affordable machine.' But in the end what kind of cultural life would we have?"

A valid concern, and one shared by the manufacturers and licensors, most of whom are musicians themselves. They admit to ambivalence, but argue that the new technology is helping to build future audiences by allowing more shows to be produced and by accustoming young people to sounds they no longer have the chance to hear on a regular basis. (Lori Jarrett, the chief executive of Notion Music, said she hopes her product will promote "a renaissance of more sophisticated art.") Sure, everyone would prefer full orchestras in grade school and Broadway minimums of 35. But on that score perhaps, Richard Rodgers has left the building.

"Technology is always a threat to live music," said Bruce Pomahac, director of music at Rodgers & Hammerstein. "When the pianoforte replaced the harpsichord, every harpsichordist was out of a job. And we all fall in love with the art we grew up with. But this is not about putting musicians out of work. They're already out of work. This is about trying to get back, in some new form, something that's lost."

That may end up being the best the musicians union can hope for too. Could we one day find our orchestra pits filled with tuxedoed men and gowned women tapping at laptops? Mr. Lazarus, of Realtime, said he doesn't want to wave a red flag at the union, but that the products are already working -- and getting better.

Anyway, don't expect labor fireworks just yet. Wait until July, when the contract with Broadway's stage crews expires. Because Sinfonia doesn't just mimic cymbals and saxophones. It can be programmed to control scenery too.

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