

A new musical, based on a classic Italian novel, gets a spectacular outdoor production

lessandro Manzoni's novel I Promessi Sposi (The Betrothed) is a recurring nightmare for generations of Italian school students, who are compelled to learn it almost by heart for their exams—yet many had to change their minds after seeing the impressive multimedia musical version of the dramatic love story, recently hosted by Milan's San Siro soccer stadium.

The Betrothed, inspired by Sir Walter Scott's Ivanhoe, was first published in 1827; it is considered the first Italian historical novel and is arguably the most popular novel in the Italian language. Set in the

Lombardy region of Italy, the complicated story focuses on a pair of lovers, Renzo and Lucia, who are separated by the machinations of the was easy to create the 40-odd evil Don Rodrigo—but the narrative is scenes with all the key parts of the loaded with political and ecclesiastical intrigues, abductions, riots, the Thirty Years War, and an outbreak of the plague. Among other things, Lucia takes refuge in convent where is she put under the care of the troubled and duplicitous Gertrude: later, Lucia is kidnapped, spending a harrowing night in captivity at the castle of a robber baron known as the Unnamed.

The spectacle was a dream come true for the director, Michele Guardì,

who worked on it with the composer (and fellow Sicilian) Pippo Flora for over 12 years. "I love the story, so it plot in a way that even foreign audiences could understand the whole story," he says.

Produced by EuropaEuropa in collaboration with Europroduzione, the spectacle, attended by an audience of 20.000, featured 16 solo singers and 50 dancers/performers on a 40m-wide (131') stage with three huge revolving set structures.

The veteran sound designer Daniele Tramontani had the responsibility of projecting the huge sound-



The set was moved manually by a 12-man crew: the main center unit had five different elements, including Milan's cathedral.

reinforcement system (supplied by Agora, of L'Aquila, Italy) for the production. "I've worked on events at San Siro for ten years, and have always taken great care to ensure that the PA covers the audience with powerful sound and a good bandwidth, without too much sound spilling outside the venue, as the

authorities are very strict with sound pollution, due to the houses near the stadium," he says. "I'm proud to say I've never had this problem with the 20-plus concerts for which I designed the sound reinforcement." Those concerts featured such international stars as Red Hot Chili Peppers and Depeche Mode, as well as top Italian

names like Laura Pausini, Zucchero, Vasco Rossi, and Ligabue.

Lemon and Pepper, a production company, coordinated the artistic production and contractors working at the stadium, ensuring that the theatrical production set-up for rehearsals at the Voxson studios in Rome was correctly assembled under

a stadium structure, and the PA, supplied by Agora, was rigged and flown correctly from the stadium roof. "We also coordinated key aspects, such as certification of the hanging loads [by specialist engineer Franco Faggiotto]," says Giorgio loan, of Lemon and Pepper.

For the PA designed by

Tramontani, the main left and right

arrays, dedicated to amplifying the music, consisted of two clusters of 16 L-Acoustics V-DOSC each, plus 12 of the same company's ground-stacked SB28 subwoofers per side with an additional four in the center. The main clusters were hung at a height of 20m (64') from four steel cables ("monster bridles," each over 100m, or 320', long), which crossed the pitch and were attached to the stadium roof. Two other, smaller, arrays were installed in the same way; these were placed 24m (79') apart and at a height of 24m, at a point level with the front of the stage. Each had eight V-Dosc and six dV-Dosc and was used to amplify the singers' voices. "These two arrays gave the audience the sensation that the voices came from the stage," says Tramontani, "and, for the seats on the pitch, the sound image was 'lowered' by stacking three [L-Acoustics] Kudo on either side of the stage and installing twelve KIVA as front fills along the edge of the stage. [Both Kudo and Kiva are line source arrays.] The coverage of the second ring of seats was integrated by five more [delay] clusters. Each of the three center ones had eight V-Dosc and each of the two external ones had six V-Dosc and six dV-Dosc."

As well as a DiGiCo SD7 console, the front-of-house control platform also hosted two Tascam X-48 multi-track recorders. These handled the backing tracks, composed by Pippo Flora and recorded at Rome's Forum Village studios by the Nova Amadeus symphonic orchestra, as well as a polyphonic choir, conducted by Renato Serio.

The PA was handled by Tramontani via three Meyer Sound Galileo loudspeaker management systems, controlled in real time via SIM. Providing needed power was a set of L-Acoustic LA8 amplifiers, each with its own independent crossover and controlled via Ethernet. To ensure a realistic listening experience, the audio team used the Stagetracker FX performer tracking and audio localization system, from the Norwaybased company TTA (Total Theatre Audio Control), which sent the sound of each singer's voice to the various loudspeakers, enabling the sound to "follow" each of them as he or she moved on stage. Luca Giaroli, TTA Stagetracker product specialist with the company's Italian distributor, Audio Sales, was on site to ensure technical support. "We used a total power of approximately 250,000W, but all that power was used to ensure top-quality dynamic sound and bandwidth," adds Tramontani.

Alessio Comuzzi, the front-ofhouse sound engineer, had already used a DiGiCo SD7 on more than 90 performances of the international hit musical We Will Rock You (featuring the music of Queen). He finds it to be a great console: "Without doubt, the feature I appreciate most is the possibility of programming even the smallest details and automating whatever is necessary. I also use dynamic EQ a lot-it's really fantastic with the DPA mics the singers are using, particularly for the female voices. I'm using about a hundred channels, which might seem an exaggeration, but there are 48 channels of recorded backing tracks alone, and the 16 mics in fact occupy 32 channels, as they're connected with the tracker. There are eight stage-front Sennheiser shotgun mics-for ambient recording purposes and in the event of a headset having problems-eight on a Holophone head above our platform, plus a series of service mics and intercoms. And there are all the

SMPTE signals—mine and those from RAI, the broadcaster—all with relative spares. We take the word clock from the RAI OB van recording the show, and use it to clock the entire audio system to ensure we don't lose any frames from the digital signal."

Regarding the two industrial emergency buttons on the armrest of his seat at the front-of-house desk, Comuzzi explains, "They were connected to a pair of MIDI Solutions' F8 MIDI footswitch controllers, and were used to stop and start the two Tascam units with the orchestral recordings. The units ran in perfect sync, and I created a macro on the SD7 that enabled me to switch playout immediately to the other in the event of problems with one of them.

"I used Figure 53's QLab to play out pre-recorded sound effects," he adds. "The desk is connected to a double Nuendo multi-track recording set-up backstage, helmed by Lorenzo Tommasini."

Tommasini manned a rackmounted octo-core ProjectLead PC with Nuendo 4 and two RME MADI cards as well as two ADI-648s-also RME-which he used as a splitter for the MADI signal. "My backup system was a rack-mounted quad-core ProjectLead PC with Nuendo 4 and two MADI RME cards," he says. "I was connected to the main console via two sets of five BNC cables, for the front-of-house Nanosync clock [which in turn received broadcaster RAI's clock], the SD7 engine A with all the mics connected and the first ADI-648, playback machine A (Tascam A and FX Mac A) connected to the second ADI-648, SD7 engine B with all the mics connected directly to the first MADI card of the backup system, and playback machine B ITascam B and FX Mac B] connected directly to the second MADI card of the backup system. The ADI-648s were connected to the main system with the BNCs and the backup system via fiber-optics."





Four Christie 30K units provided front projection, with four Christie 8K units handling rear projection.

Behind his Digico D1 desk, Andrea Tesini, the monitor engineer (recently at the Shanghai Expo with the famed composer Ennio Morricone, with whom he works regularly), explains, "The 16 solo singers have a stereo Sennheiser EW 300 G2 IEM set-up with three reverbs, ensuring very good audio quality. We've also got four L-Acoustics ARCS as side fills for the dancers, reproducing music and the chorus-no solo vocals-plus 16 ultra-slim K-Array KR200S along the stage front, with a little music and chorus, but mainly used for the solo singers' vocals. They're very directional, and cover the whole stage very evenly, thanks to their throw of up to 5-6m (16.5'-19-5'). We also put in two

L-Acoustics SB28 subs to beef up the bottom end of the vocals, and eight Meyer Sound UPM-1Ps are built into the set elements and hidden elsewhere in the scenery."

The system was aligned and EQ'd with six BSS Soundweb 9088s, which Tesini also used, each time the scene changed, to open and close the speakers according to scene changes.

Giuseppe Porcelli, the monitor assistant, was also the show's wireless mic engineer and was assisted by RF expert Fabio Gagliotta. "We used Shure's Wireless Workbench to scan the range of frequencies used by the systems and to find which ones could be free in their work range," he says. "Milan is a

very problematic area, so we couldn't rely exclusively on the software's results and had to take other parameters into consideration, such as intermodulation between the various body-packs-here, too, Shure also lent a hand, with compatibility tables showing what combinations should be avoided. Our network of Sennheiser IEMs operates in different frequency ranges, but the vicinity of the antennas can also cause intermodulation and therefore noise problems. Two Shure HA8089 helical antennas were chosen, as they are very powerful, and, in fact we're not having any problems with the IEM set-up."

Porcelli and Gagliotta caused nightmares for the costume seamstresses, as they needed three pockets in every costume worn by the soloists-mic and IEM body packs and Stagetracker TurboTagsand none of these could be placed too closely together. "We try to keep them at least 10cm (4") apart, but had some problems nevertheless. If the TurboTag is too close to the IEM pack, only the artist in question hears any interference in his or her earphone; if it's too close to the mic pack, any noise caused could be heard by the audience. The costumes themselves caused some problems. as some of them—with metal parts such as armor-had a screening effect on the signals."

Lighting and video

Franco A. Ferarri, the veteran lighting designer and director of photography, says, "The rig had to be moved to Milan after production rehearsals in Rome, and the show required a wide variety of light and colors, so I chose fixtures able to achieve this as well as precisely profiling the set elements using as few instruments as possible." Ferrari combined 60 Clay Paky Alpha Profile 1200, 10 Alpha Spot HPE 300, and Alpha Beam units with 40 Martin Professional MAC 2000 Performances and 70 Mac

700s. This enabled him to limit the size of the lighting rig, but still ensure the colors he needed to "describe" the set.

"The idea was to keep the majority of the fixtures away from the set—at stage left, stage right, and on a truss bar mounted out front—thus illuminating the entire show without a truss ring over the stage. The director left me more or less carte blanche to ensure total compatibility between a high impact for the audience at the venue and the right look for TV coverage, so I used a concept that was more photographic—cinematographic, if you like—but with an exclusively theatrical use of color."

The High End Systems Wholehog III lighting console used for the show was programmed and operated by Marco Gattella, of the Roman video and lighting contractor Di and Di, whose team was led by Roberto Piersanti, the crew chief, and included Wholehog III video console operator Andrea Dellifiori, "The fixtures on the set are divided among the various elements," Gattella says. "In the cathedral scene, there are two Clay Paky Alpha Beam 300s, plus a Coemar StripLite LED RGB fixture and a Coemar ParLite LED for each window; in the village, there are six Alpha 300 HPEs, plus one or two StripLite LEDs for each window. The convent and the Unnamed's home have two StripLites for each arch and

ParLite LEDs for backlighting, whereas the two side periaktois have a StripLite and a ParLite for each window for backlighting and to illuminate the walls."

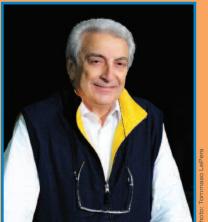
Other lighting gear included 20 ARRI PC 300W units, 10 Arri Fresnel 5kWs, 70 PAR CP 60s, and 15 ETC 750W Profiles. Along with the Wholehog, the control system featured a set of Avolites dimmers.

Four double-stacked Christie 30K units projected onto the set from the control platform behind the pitch seating, alongside the four Coemar followspots used in the production. Four Christie 8K units, used for rear projection, were mounted on a truss bar behind the main scenic element. Video content, developed by the show's graphic studio according to the director's indications and stored on a Catalyst media server, included images of huge bats flying across the scene featuring the Unnamed and a platoon of enormous soldiers marching in the scene featuring the Lanzicchenechi, German infantry mercenaries who bring the plague to Lombardy with them. Rear projections included landscapes, a huge bare tree, the full moon, clouds, and more.

Luciano Ricceri, a veteran set designer, is no newcomer to stadium shows, having worked on *Turandot* and *Tosca*, both staged at Rome's Olimpico soccer stadium in the late '90s. However, the 40 scene changes he designed were a record for a two-act show. The set (built by Riccardo Buzzanca's specialist firm, Mekane) had three huge rotating units, moved manually by a 12-man crew; the main center unit had five different set elements, including Milan's cathedral, a towering 18m-tall (59') building, while each of the two side units contained three scenic locations each. "This solution enabled us to recreate 17th-century Lombardy, but with means that allowed the scenes to be changed in rapid succession," Ricceri says.

A television version of the production, recorded at San Siro, will be broadcast nationwide in September; an HD version will be released on DVD. RAI, the Italian television network, will also air a series of eight episodes showing how the show was conceived, created, and produced, with backstage footage, coinciding with Lombardy's changeover to digital terrestrial TV.

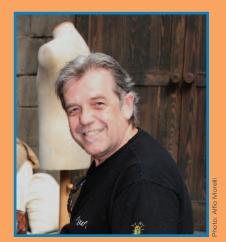
Happy with the realization of his dream, Guardì notes the production relied on a combination of digital AV technology and the manual skills of the set builders and scenery changes. He adds he had preferred not to use automation and motorized elements, due to the risks involved, with mobile phones in the theatre having caused problems in the recent past: "We couldn't have a building block halfway round during a scene change!"



Michele Guardi, the production's director.



Luciano Ricceri, the set designer, with his assistant. Grazia Polito.



Daniele Tramontani, the sound designer