Giacomo Puccini *Centenary 1858-1924*
IL TRITTICO XR
Gianni Schicchi

17 maggio 2023 *Sala Dante La Spezia*
ore 9 Presentation
ore 11 Performance

Hybrid Orchestra
Conductor **Federico Bardazzi**

Experimental Research Project Coordinators **Alessandra Montali, Federico Bardazzi**
Storytelling Video & AI **Michal Parchimowicz**
Project VR interior Environment **Barbara Nawrocka, Dominika Wilczyńska**
Video Editing **David Tozzi**
Sound Engineer **Nicola Cavina, Guido Paolo Longo**

Characters
Gianni Schicchi Mitchell Hutchings *Baritone*
Lauretta Patrizia Cigna *Soprano*
Zita La Vecchia Sabina Caponi *Alto*
Rinuccio Saverio Bambi *Tenor*
Gherardo Daniele Berardinelli *Tenor*

Nella, Gherardino Letizia Dei *Soprano*
Betto di Signa Sandro Degl'Innocenti *Bass*
Simone, Messer Amantio Di Nicolao, notaro Georgios Papadimitriou *Bass*
Marco, Pinellino Evangelos Angelakis *Baritone*
La Ciesca Francesca Mannino *Soprano*
Maestro Spinelloccio Eugenio Milazzo *Bass*
Guccio Andrea Benucci *Bass*

Avatars
1. Andrea Bareggi *Nella* PC
2. Naya Young Calzacorta *Lauretta, Messer Amantio Di Nicolao notaro* Mac
3. Giulia Gianni *Maestro Spinelloccio* PC
4. Ken Munene Hiram Kiragu *Gherardino* Mobile
5. Harriet Kalekye *Guccio* Mobile
6. Adrian Kvokacka *Simone* PC
7. Luca Martello *Gherardo* Mobile
8. Alva Miconi *La Ciesca* PC
9. Alessandra Montali *Betto di Signa* Metaquest 2
10. Ella Nagy *Zita La Vecchia* PC
11. David Tozzi *Gianni Schicchi, Pinellino* PC
12. Tercio Terencio *Rinuccio* PC
13. Laura Triggi *Marco* Mobile

Hybrid Orchestra
Eugenio Milazzo *Violins I, II*
Michele Augelli *Altos, Cellos*
Emma Cappelli *Double basses*
Debora Tempestini *Flutes, Ottavino*
Paolo Gonnelli *Oboes, English Horn*
Claudia Gori *Clarinets, Bassoons*
Paolo Bernardi *Horns*
Dimitri Betti *Trumpets, Drums*
Samuel Botta *Trombones*
Simone Russo *Harp*
Guido Paolo Longo *Bass Clarinet, Celesta, Campane*

Technical Staff **Dylan Bartoli, Giordano Betti, Tercio Terencio**

A group of partners of the project Horizon CAPHE (Conservatory of Music of La Spezia, Mastropracownia, NKUA-National and Kapodistrian University of Athens, PUNO-Polish University Abroad), coordinated by Federico Bardazzi and Alessandra Montali, is currently conducting experimental research on the application of new technologies, including the use of artificial intelligence (AI) and virtual reality (VR), in the field of Opera. The work of the research group focused on three different technological experiments aimed at integrating these innovations into the work.

The first experimentation, "Il poeta di Campagna" by Pietro Alessandro Guglielmi, was carried out in November 2023 in Italy (Sarzana, Teatro degli Impavidi). It involved a hybrid orchestra and interaction with AI to generate virtual sets and opera characters by reworking photographs of the solo singers involved in the performance.

The second experimentation, "L'Orfeo" by Claudio Monteverdi, was conducted in February 2024 at Florida Atlantic University. In this second experimentation, we preferred to use natural settings to create 360-degree video sets, and we interacted with AI to rework models of classical statues to represent the characters.

The third experimental model of our research is applied to Giacomo Puccini's "Gianni Schicchi" in the Centenary year: this opera is indeed realized within the scope of the International Conference Enhancing Artistic Experience in Hybrid Environments of the CAPHE Project. This third prototype is proposed by us as an integration between live performance and the metaverse: while singers and musicians perform live, opera characters act as avatars in the virtual environment of spatial.io. The metaverse environment is designed both as a space for the scenic action where singers/avatars move, and as a set of galleries where the audience present in the metaverse space can interact with diversified materials providing the possibility of a deeper understanding of the opera and the type of artistic proposal realized. Instrumental performance is entrusted to the digital orchestra, and the audience is involved in a 360-degree immersive sound spatialization effect.

We believe that the audience of the International Conference can appreciate this radically innovative approach aimed at enhancing the tradition of Italian Opera. Our experimentation not only aims at a technological reinterpretation of opera through the innovative use of new technologies but also aspires to radically transform the audience's experience through an interdisciplinary approach. The interdisciplinary approach is a fundamental element of our research and experimentation in the field of opera. In fact, this show is the result of an important collaboration of experts from a wide range of disciplines, including music, technology, architecture, education, artificial intelligence, visual arts, and musicology. This synergistic collaboration allows us to combine diverse skills and perspectives to create innovative and engaging artistic experiences. For example, while musicians focus on philology and the execution of scores, technology experts work to integrate the latest digital innovations, such as Artificial Intelligence and Virtual Reality, into the fabric of opera. At the same time, visual artists and architects contribute their creativity in the design and realization of virtual sets and digital characters, and musicologists provide historical documents that can offer the audience a deeper level of knowledge about the show. This interdisciplinary approach not only enriches the Opera experience but also opens up new perspectives for research, education, and artistic expression that can inspire and engage a broader and more diverse audience.

We believe that the introduction of a more immersive version of Opera can significantly broaden the audience and stimulate renewed interest across different age groups. Through the use of new technologies, we aim to offer the audience an engaging and stimulating experience that goes beyond simple passive enjoyment. Interaction with emerging technologies such as Artificial Intelligence and Virtual Reality not only enriches the Opera experience but can also attract a younger, technologically-oriented audience to whom we seek to suggest the importance of developing new professional figures connected to new performance models.

Alessandra Montali