

## OPERA REVIEW The dawn of the future dramatic art

Tod Machover's opera is a spectacular technological experiment

**By Bogdan Fedeles**

STAFF WRITER

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*Death and The Powers: The Robots' Opera*

*Cutler Majestic Theater*

*Music by Tod Machover*

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Death and Powers stunningly blended music and technology.

Ever felt that going to the opera is old-fashioned? Fear not. With his latest dramatic work *Death and the Powers: The Robots' Opera*, MIT composer Tod Machover attempts to bring the operatic art solidly into the 21st century and a little beyond. Machover's opera is the most recent and most compelling display of technology-enabled art and technology as an art form. The show, which had its American premiere on March 18 in Boston's Cutler Majestic Theatre, is a remarkable artistic achievement, enabled by cutting-edge MIT Media Lab technology that permeates all aspects of the production. The audience is exposed not only to stunning visuals and lighting effects, but also to innovative soundscapes generated by a mix of traditional instruments and electronic hyperinstruments — one of Machover's pioneering inventions. The opera features human singers and, as the title suggests, robots (which are indeed real, sophisticated robotic machines, not just stand-in props). All performers, human and machine, interact seamlessly and compellingly. However, *Death and the Powers* also remains true to the operatic tradition and features a challenging, thought-provoking story, which persists in our minds long after the music has stopped and the technological flash has faded away. The opera was enthusiastically received at the sold-out premiere, with the audience engaged in a frantic, standing ovation at the end.

Given the technological richness of the production, it is only fitting that the subject matter is based on science-fiction, telling the story of people living in an era of seamless interfacing between man and machine, to the extent that even human consciousness can be transferred and continue to exist inside a computer. While these futuristic ideas have been thoroughly explored in popular science-fiction, they have rarely infiltrated the traditionally rigid world of classical arts. It is encouraging to see that Machover's works, especially *Death and the Powers*, are pushing traditional boundaries, not only in terms of performance capabilities, but also in terms of content.

Actually, as hinted by the subtitle *The Robots' Opera*, the opera unfolds as a play within a play, where distant future robots reenact a performance about the early days of the machines — specifically, the time when the first human bridged the gap between man and machine. The story is about Simon Powers, a billionaire obsessed with extending his mortal existence. He develops the technology to move his consciousness into a computer network called The System. The opera vividly describes Simon's transformation from an ailing old man into a powerful machine and its impact on Simon's human nature and his interaction with his wife Evvy, his daughter Miranda and his protégé apprentice, Nicholas. At an abstract level, the opera becomes a fascinating exploration of the eponymous notion of Death and whether human nature can be indefinitely preserved in an unadulterated state through technology.

Given the philosophical nature of the story, writing the libretto for this opera was certainly a great challenge. Robert Pinsky did an excellent job of retaining the weight of story while also adding an entertaining and humorous side to the lines. In fact, most of the spoken and sung verses contain incessant puns and superficial, almost crude jokes. While a lot of this humor feels artificial and forced at times, it does suggest a rigid, robotic perception of human existence, which is exactly the point of view from which the story is told. Moreover, the libretto was particularly effective at conveying the dissolution of the limited human language into the vastness of digital, electronic language, like when Simon becomes The System.

*Death and the Powers* is a visually stunning spectacle, employing state-of-the-art technology that was mostly developed at MIT Media Lab, specifically for this purpose. Among the vast technological deployment, the most mesmerizing part is the use of robots. The opera features nine remote-controlled, highly mobile units that behave as individual characters. While the robots are all identical, and only have purely geometric shapes (closest to triangular prisms), they feature multiple moving parts and light elements. These features, together with their self contained power supply and remarkable dexterity in movement are crucial in their becoming credible, living presences on stage. Given my own experience with designing and bringing to life an autonomous robot during MIT's famous 6.270, I can attest to the remarkable sophistication of the opera's robots. I was amazed by how versatile and expressive they can be in an artistic sense.

The opera also features three larger, slow moving robotic units, shaped like triangular prisms, representing The System. While their shapes are a clever nod to the traditional *periaktoi* — a device for switching between different stage backgrounds — their main function is to represent Simon's life inside The System, which is accomplished by ingenious use of surface panel lighting and complicated computer algorithms. These technologies enable a technique called disembodied performance, in which James Maddalena, the singer-actor portraying Simon, continues to perform his part after Simon integrates into The System. Maddalena uses a special booth, off stage where his vital signs (such as pulse and breathing rate) and gestures are all fed into computers, which interpret them and render them as flashes of light and sound onto the walls of the *periaktoi*. His voice is also projected onto the stage, by way of a 140 speaker surround sound system, run by more computers. The effects are indeed spectacular; the use of real-time performer input allows for each performance to be essentially unique.

Another visual masterpiece worth mentioning is the chandelier adorning the stage. We soon learn that this giant, multi-jointed, wrought iron centerpiece can move, and its stringed, harp-like surfaces can produce sound. In fact, the chandelier is one of Machover's hyperinstruments and it depicts an extension of Simon's manifestation within The System. Its presence allows for an extremely effective love scene between Simon — now The System — and his beloved wife longing for his presence. The ability of the hyperinstrument to react to the physical interaction becomes then a critical factor that allows for a very compelling erotic chemistry to develop on stage, illustrating another aspect of the intimate connection between man and machine.

While thought-provoking and visually captivating, the opera owes its great success to its sparkling music. Machover's highly original score utilizes a bold blending of traditional instruments and electronic synthesizer effects to deliver a glorious aural landscape. I found the transitional music to be the most effective; the complex instrumental passages with hints of electronic manipulation were very enjoyable and truly transfigured the audience into the distant future. The vocal lines, however, were a lot more difficult to grow accustomed to. The tortuosity of the melodic lines made singing quite challenging and gave the appearance of a lack of vocal arias, in the operatic sense. It may be that the composer tried to steer clear of the Broadway line of work that mixes advanced technology with usually cheesy music, but it went a little too far in the opposite direction. Nevertheless, as in the case of the libretto, perhaps the intention was to depict the music as imagined and performed by robots — which are technically flawless, but lacking in their understanding of human nature. In that case, the difficulty of the vocal lines makes sense.

Finally, the show benefited tremendously from a very talented cast of singers and performers; their dedication to the music and their enthusiasm in performing in a technologically wired set were transparent and energized their performance. James Maddalena did a terrific portrayal of Simon, on stage and through disembodied performance. His forceful vocal performance was aptly doubled by skillful acting. As Evvy, soprano Emily Albrink delighted the audience with her warm timbre and playful acting, especially in the chandelier scene. Joining her in several duets was soprano Sara Heaton portraying daughter Miranda. Heaton had perhaps the most difficult vocal line in the whole opera, but she did an amazing job, dazzling the audience with her crisp coloratura singing and piercing high notes. As Nicholas, the cyborg protégée of Simon, Hal Cazalet offered a compelling performance, full of wit, exciting acting and expressive singing. Rounding the cast were Douglas Dodson, David Kravitz and Tom McNichols, who although in supporting roles, delivered very upbeat performances, full of character. They often sang together, supplanting the role of the opera chorus, which allowed their strikingly different vocal registers to blend effectively.

Machover's *Death and The Powers: The Robots' Opera* is a landmark achievement, highlighting the immense potential of technology as an artistic enabler and medium. The complexity of the opera, forged by the momentous intersection of art and technology, allows it to be both an effective entertainment vehicle and an inspired challenge for the future of the art in a world resonating more and more to the beat of technology.