

Video-game tech hits classical music

By Gail Koch, Contributor to *The Christian Science Monitor* / March 17, 2006

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Inside a darkened studio at Ball State University here, world-renowned classical musician Francois Rabbath stands surrounded by infrared lights.

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The double-bass player is outfitted in black lycra fitted with technology that looks like something out of a sci-fi film. A black cotton sweatband with bauble-like fixtures rests on his forehead. Attached with double-sided tape to his joints, most abundantly upon his left hand, are dozens of tiny, reflective spheres. The garb is far from the formal dress of a classical musician but it suits Mr. Rabbath well.

"I look good in this costume, no?" he asks, patting a small, black-suited belly.

The form-fitting attire is configured so that computers can digitally record the virtuoso's skills through a process known as motion-capture. Best known for bringing characters to

life in video games as well as in such films as "The Lord of the Rings" and "The Polar Express," motion capture will allow researchers to create an animated model of Rabbath's techniques for an instructional DVD titled "Art of the Left Hand."

"Francois is to classical music what Michael Jordan was to basketball," says Hans Sturm, a double-bass professor at Ball State, who counts Rabbath as both mentor and close personal friend. "Nobody else does what he does. And I doubt anyone ever will."

The state-of-the-art technology will preserve Rabbath's bowing and fingering techniques - his "fingering gymnastics," as Mr. Sturm calls them - so that others can analyze the master's approach to the double bass.

With assistance from Ball State's Biomechanics Laboratory, Rabbath is changing the art of the modern-day music lesson, says Sturm. Whereas most instructional books or videos employ a single camera to capture two-dimensional views of an artist, "Art of the Left Hand" will feature the Syrian-born musician's fingering techniques in 3-D through the use of multiple camera angles.

The motion-capture element of the DVD enables students to select and watch fingering exercises in varying formats that better demonstrate Rabbath's hand and arm rotations.

Motion-capture technology relies on infrared lights to pick up reflections off the spheres covering Rabbath's body. The reflections are transferred from camera to computer, where a motion-capture program creates a digital animation of the musician.

Sturm and Rabbath have worked with motion capture before, employing it for their first collaborative project, "Art of the Bow." Released last spring, the DVD has earned major accolades from musicians on the international bass scene. "Bass World Journal" calls it a "pedagogical tour de force." A "must-have" for bassists, says "Bass Player" magazine.

A self-taught musician, Rabbath is no stranger to pushing the boundaries of classical music. The Paris resident started off working with the likes of Jacques Brel before creating the celebrated album "Bass Ball" in 1963. Since then, the man dubbed "the Paganini of the double bass" has used the instrument as a soloist in jazz, pop, and classical music. It was Sturm, who began studying with Rabbath at his Paris home in 2000, who first suggested that the bassist journey to Indiana to create the DVDs.

Rabbath's light-hearted approach to the work - his constant smile uncharacteristic of a classical musician's serious demeanor - has kept minds calm during the intense filming sessions for "Art of the Left Hand." On set, Rabbath cracks jokes about the figure-hugging suit.

"You know, I used to be a body builder," he says with a wink and a smile, his voice thickened by a heavy accent. "Ah, but that was back in my younger days."

Between takes, Rabbath launches into beautiful improvisations. He gets lost in his music, save for a peek at the small crowd gathered for his impromptu performances.

"For me, I must do this," the jovial, white-haired Rabbath says of his work on both DVDs. "It is a passion of mine."

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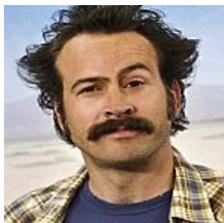
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