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Sloooow-Dancing at 3,000 Frames Per Second

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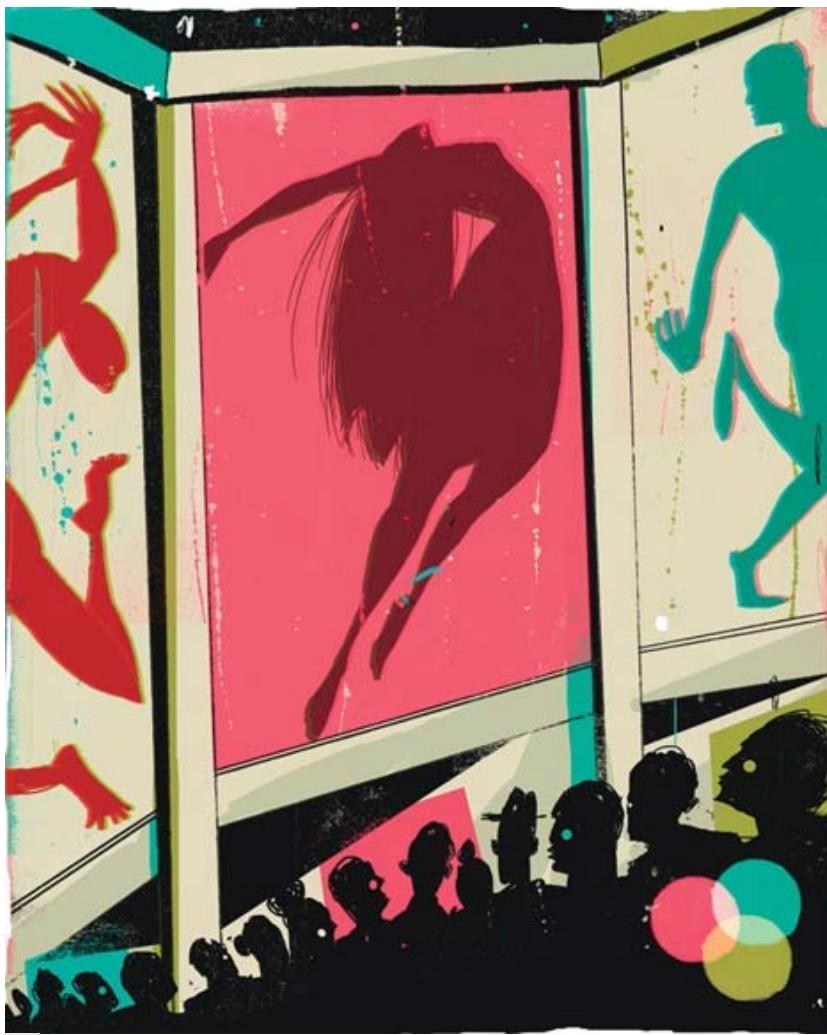


Illustration by Pietari Posti

Time flies when you're having fun.

Unless you're photographer David Michalek. Then it practically stands still. The proof is in Michalek's latest project, *Slow Dancing*, which was on view this summer outside the New York State Theater at Lincoln Center. On a rainy Manhattan night, Michalek explains to me what he had to go through to create his epic work of art — super-slow-motion, hi-def films of 45 dancers leaping, pirouetting, and stomping. The images are projected on three screens, each five stories high.

The effect is remarkable. By slowing down just five seconds of conventional dance movements

Michalek reveals a rich world of hidden undulations, minuscule adjustments, and concealed strain. It takes 10 minutes for each five-second sequence to unspool. Eadweard Muybridge would have loved it.

Early on in the project, Michalek tested the process on his wife, New York City Ballet star Wendy Whelan. "There was some dismay on her part," Michalek says, "a sort of, 'Gee, I didn't realize certain parts of me did

that... That's bizarre!'" Those first experiments also fell far short of the cinematic quality Michalek had imagined. So he spent almost two years searching for a camera that could capture the level of detail he was after. His first lead came when he saw an ad in a magazine for a videocam designed to film golf swings. The company sent one over, but it was "like a cheap Tyco toy" — too low-res for his purposes.

Undeterred, Michalek kept looking for a camera with hi-def, high-speed capability — the kind found mostly in motion-analysis tools used in the defense industry. But those are designed to document things like missile trajectories and shrapnel dispersion patterns, not the delicate ebb and flow of a chiffon skirt. The lenses were a particular disappointment. "A lot of these companies are very interested in the engineering, the guts, but they have no consideration for the glass," Michalek says. "I was like, 'Guys, glass is everything!'"

Finally, he found it: a prototype from a small engineering lab in New Jersey. He got hold of one and equipped it with an Arri/Zeiss — a razor-sharp 35-mm motion-picture lens. The camera's memory allowed him to shoot up to 1,000 frames per second for five seconds. Michalek wanted 3,000 (standard hi-def models shoot at 24 fps). He solved the problem by using time-remapping software to create interpolated, "imaginary" frames — near copies of the adjoining frames.

A few nights before our talk, Michalek showed three of his films to a packed theater at the Guggenheim Museum in Manhattan. (The project will travel to Los Angeles in September.) In one, American Ballet Theatre's resident dynamo, Herman Cornejo, takes on an otherworldly repose in a slo-mo version of one of his jaw-dropping leaps. "I wanted to create a wonderful work of portraiture," Michalek says. "But I'm also interested in bringing new works of sacred art into being." Amen.