

# THE REPUBLIC

## ILLINOIS SPOTLIGHT: Composer hears music in Fermi buzz, Bensenville junk

BURT CONSTABLE (Arlington Heights) Daily Herald

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*This Oct. 15, 2011 photo provided by the Chicago Symphony Orchestra, shows the Orchestra's Mead Composer in Residence, Mason Bates in Chicago. Bates blends the vibrating conductors, and humming transformers of Fermilab, and crunching of junked cars at Victory Auto Wreckers with his original music composition "Alternative Energy" being performed by the Chicago Symphony Orchestra at Orchestra Hall under the direction of Riccardo Muti. (AP Photo/Chicago Symphony Orchestra, Todd Rosenberg)*

BATAVIA, Ill. — At most suburban workplaces, the droning background sounds consist of keyboard clicks, phone chirps, chair squeaks, the occasional clank of a Diet Dr. Pepper can tumbling down the vending machine chute or that way-too-personal phone chat emanating from your neighbor's cubicle.

But at Fermilab in Batavia, the vibrating conductors, humming transformers and all the buzzing, whirring, thumping, whooshing and rumbling are music to the ears of avant-garde composer Mason Bates. The 35-year-old classically trained, award-winning composer also finds musical value in junk cars at Victory Auto Wreckers in Bensenville.

Bates blends Fermilab sounds and a junkyard instrument with his original music composition in last Thursday's world premiere of his "Alternative Energy" symphony, performed by the Chicago Symphony Orchestra at Orchestra Hall under the direction of Riccardo Muti.

"An 'energy symphony' fascinated me as a way to approach visceral musical ideas in a highly dynamic form," Bates says Wednesday in an email sent by CSO staff in response to an interview request. "The idea was that each movement would be separated by a hundred years, starting with old energy (the first movement uses scrap metal to evoke a junkyard) and moving to present and future energy."

Making good on Victory's slogan, CSO percussionist Cynthia Yeh proves "that old car may be worth money" by playing a drum set constructed from auto parts salvaged from the junkyard. Fermilab's sounds, such as the buzz of 13,000-volt transformers, should fill Orchestra Hall.

When Todd Johnson, an operations specialist at Fermilab, got the job of escorting Bates around the facility last March, he immediately researched some of Bates' earlier works, which have incorporated everything from earthquake rumblings to the sounds of glaciers melting.

"I applaud the imaginative applications of science in an artistic realm," says Johnson, an Aurora native who makes his own artwork called "shock fossils" from firing electron beams into acrylic. He calls Bates' music "cool and imaginative."

"Don't know what we're going to find up there," Bates says on a video of the visit recorded by a crew from classical music station 98.7 WFMT. "We hope it's big and huge, and that it sounds good and that it has no radiation attached to it."

**"Fermilab exists at the intersection of technological power and human curiosity, and I wanted the symphony to include an example of massive energy used in a positive way," Bates says. "When we hear a surround-sound recreation of the Tevatron booting up — a massive machine spins around the orchestra — it is as if the crank on an old Model T suddenly grew to be several acres in size."**

Some employees might take the Fermilab noises for granted in the same way veteran space station astronauts "don't look at the earth every time they walk past the window," Johnson says. "But I had a list of things I thought would make interesting noises."

Johnson got the control booth to turn massive water pumps off and then back on.

"It makes this totally cool, whooshing, howling, starting sound," says Johnson, who replicates it with his voice. "I don't know how you'd spell that noise, but it's a cool sound. When Mason heard it, he clenched his teeth and gave a fist pump, so I think he liked it."

Another Fermilab sound symphony patrons might hear is the "quench" of magnets when they lose their superconductivity and heat helium to the point where the gas has to be released,

Johnson says. Co-worker Derek Plant, a senior technician who also plays music, gave Bates a recording of that eerie sound, which happens only two or three times a month.

Now in his second year as a composer in residence with the CSO, Bates calls "Alternative Energy" his "biggest work to date."

This marks the first time sounds from a Fermilab conductor were conducted by a CSO conductor. It's probably also the first time the CSO has gone to a junkyard for instruments. But Kyle Weisner, president of Victory Auto Wreckers, says this isn't the junkyard's first contribution to the music world.

"There are artists and musicians who come in and get parts for projects, whether it's something they are going to do for school or to take pictures to put on a CD," Weisner says. "There was a band that had a song called 'Victory Auto.' It wasn't a very good song, or a very popular band, but it's nice to be thought of."

The blending of real world sounds with the instruments of the world-renown symphony is a work commissioned by the Chicago Symphony Orchestra.

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