



Have carillon, will travel

October 31

A playable one-fifth scale model of ISU's campanile and carillon designed and built by students was unveiled during homecoming. It will be used for special events, performances and educational outreach.

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By Erin Rosacker

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Capstone students helped assemble the campanile-carillon model for its debut performance at Stephens Auditorium. *Photos by Christopher Gannon.*

University carillonneur Tin-Shi Tam and her students now can take their show on the road. A one-fifth scale playable model of Iowa State's iconic carillon and campanile was unveiled at an Oct. 27 celebration concert, where Tam played "Bells of Iowa State" and a commissioned "Fanfares, Athems, Peals" that incorporated the ISU Symphony Orchestra and alumni chorus.

"This is a trademark design," Tam said. "It's the first of its kind in this configuration, with this concept."

The model will be used for special events, guest performances and educational outreach, a nod to Iowa State's land-grant mission. Tam said for-hire engagements -- for example, weddings -- also may be possible.

"This can go anywhere the road can take us, honestly," Tam said. "The Student Carillonneur Leadership Council will be really involved in doing the performances and all the logistics."

A group effort

Tam, Cownie Professor of Music, shepherded the "ambitious project" through four years, more than 6,500 emails and countless meetings with the students helping to design and build the model. She is quick to deflect the attention to everyone else who helped make the model a reality.

"This cross-disciplinary project could not have been accomplished without the dedication, patience and leadership of the many students, faculty and staff involved. Thanks also to sponsors in sharing our vision to spread Cyclone traditions across the state and throughout the nation," Tam said.

At the top of Tam's thank-you list is Jim Heise, associate teaching professor in mechanical engineering. He has managed the project since its inception, guiding eight capstone classes (so far) that worked on the model. As an ISU grad who, as a student, campaniled with his wife of 37 years, it's a project close to his heart.

"It all has special meaning to me," he said. "It's a labor of love. Literally."

Nearly 100 capstone students have been involved in the multidisciplinary project. Work on logistics -- for example, containers for packing and moving the facade pieces -- is in store for Heise's next capstone class.

"I give the students a choice about which project they'll work on, and every team gravitated toward this one," Heise said. "They're emotionally attached, just like I am."

The model

The portable campanile-carillon model stands 21.5 feet tall with the tower fully extended, and about 6.5 feet tall when collapsed. The structure's center compartment contains 19 bells, the keyboard and a scissor-lift frame for the campanile facade -- complete with working clocks on all four sides. Two detachable side sections house four bells each.



The model's 27 bronze bells are engraved with the dedication year and sponsor names.

The model's 27 bronze bells range in size from 15 to 140 pounds. In its entirety, the structure weighs about 2,800 pounds. Heise said it should take a team of two to four people about an hour to

assemble or disassemble.

Like the full-size carillon, Tam and her students have a practice keyboard in Music Hall that mimics the model's playing experience. Unlike the original, there are no foot pedals for the model and the 27 bells are played only with the hand console.

The carillon and a poster about the project are on display at Parks Library until Thanksgiving break.

Special touches

Students in electrical, computer and software engineering designed an interactive electronic display like the popular Guitar Hero video game to guide first-time players through songs. The notes of the song cascade down the monitor to a lightbar above the keyboard that indicates when the player should hit the corresponding keys. The visual indicator allows anyone, regardless of expertise, a hands-on experience.

Two benches accompany the model. They were created using wood from an oak tree that used to stand near the campanile. The playing bench is for the carillonneur, the other is a "lovers bench" for campaniling couples on the backside of the model.

"The whole tradition of campaniling is being recognized by this as well," Heise said. "The wooden benches are from a tree that was there when the campanile was built, so it has a history with the university."



Josh Meeks, right, and Adam Clifton of Ohio-based Meeks, Watson and Co. bell founders and carillon builders, prepare to hang and connect another bell in the center section of the model.



Josh Meeks attaches the lower bells in the center section of the model.



The campanile-carillon model was assembled on the Stephens Auditorium stage for its debut in the Oct. 27 "Bells of Iowa State" celebration.

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