



Illustration: Cat O'Neil

Forces of Nature

As an EF3 tornado ripped through Marshalltown, Iowa, last summer, it seemed to produce randomly located damage. That's the way it often seems with a tornado. While one house loses its second floor, its neighbor loses a few shingles. Luck? Not necessarily, according to data gathered by a group of collaborative Iowa State researchers.

The researchers are part of the Hazard Mitigation and Community Resilience (HMCR) program led by Sri Sritharan, Wilkinson Chair in Interdisciplinary Engineering. Established in 2017 through a gift from Dr. Vilas Mujumdar, the program's goal is to help bolster community resilience to natural disasters through better preparedness and mitigating existing vulnerabilities.

The Marshalltown tornado research, conducted by Iowa State faculty and students in community and regional planning and civil and structural engineering, began with a survey of 660 damaged houses to determine patterns and results of tornado impact.

"Our survey showed that pre-existing conditions along socioeconomic and structural lines helped determine degree of damage," says Sara Hamideh, assistant professor of community and regional planning. "Damage was not random."

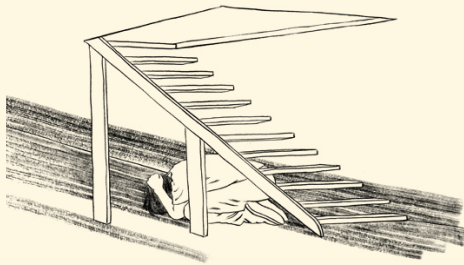
That is, homes with better maintenance histories tended to suffer less damage than homes that had received less care. This fault line also correlated to social factors, including

occupant education, language spoken at home and income level. Sritharan says once such vulnerabilities are identified, they can be addressed in multiple ways, from upgrading municipal codes to providing financial assistance.

"This kind of interdisciplinary research, with the main focus on community resilience, has never been done before," Sritharan says. "Our ultimate goal is to facilitate development of plans that allow whole communities to bounce back faster from disaster."

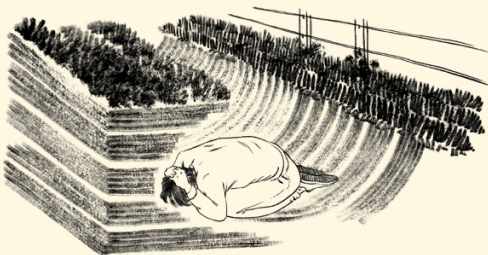
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TORNADO APPROACHING?



Keep safe indoors:

- 1 Go to the interior part of a basement and cover your body with a blanket.
- 2 If there is no basement, use an inside room on the lowest floor.
- 3 Avoid windows, which could break due to strong winds.



Keep safe outdoors:

- 1 Lie flat in the nearest ditch and shield your head with your hands.
- 2 Don't get into or under any vehicle, no matter its size.
- 3 Don't get under an overpass or bridge; you are safer in a low, flat location.
- 4 Don't try to outrun a tornado in your car.

Taking Flight

It's not every day that an Iowa State student is appointed by the state's governor to be part of an important educational initiative in the state.

Kwizera Imani, a senior in aerospace engineering, experienced just that.

Governor Kim Reynolds nominated Imani to the advisory board for the Iowa Clearinghouse for Work-Based Learning, a group charged with expanding high-quality, experiential learning experiences for K-12 students. In his role on the board, Imani, an MVP Scholar and recipient of the Bright Scholars of Iowa Award, hopes to bridge the gap between policymakers and the students affected by the policy.



Debra Marquart's Next Chapter in Verse

At the age of 24, **Debra Marquart** was living the rock 'n' roll dream, traveling the country as a singer in a band. That all ended when the band's rental truck caught on fire, destroying \$60,000 worth of equipment, ultimately leading to the group disbanding.

Marquart then turned to writing for her creative outlet, eventually leading her to Iowa State, where she has taught since 1995. But even Marquart, now a Distinguished Professor of English and the Liberal Arts and Sciences Dean's Faculty Fellow in the Arts, couldn't have predicted she would be appointed by Governor Kim Reynolds to serve as the Iowa Poet Laureate. In her new role, she plans to hold workshops and readings at libraries, schools and community centers across Iowa.

Marquart never gave up on making music. Today she's a member of The Bone People, an unplugged rhythm and blues group that helps her bring her poetry to life.



3,000 BOOKS FOR UGANDA

To help students in rural Uganda learn to read and write in English – the language used on their final exams for admission to secondary school – the Iowa State University–Uganda Program implemented an after-school reading program. That’s why College of Agriculture and Life Sciences students in the 2019 Uganda Service Learning Program collected more than 3,000 children’s books this past spring semester to take with them to the Kamuli District of Uganda. Now, the students are able to read aloud in small groups, empowering them to learn the English language in an engaging way.



Supplied Photos

Welcome to **YOUR IOWA STATE**,
the newsletter that keeps you connected
with **Iowa State University**. Look inside to
find out what's happening on campus as
well as to relive some of your own Iowa
State memories.

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Beautiful Brunner!

After being closed for nearly two years, Iowa State's Brunner Art Museum, a staple of the university for the past 44 years, reopened earlier this fall after an extensive remodel. The renovations included an all-glass entrance to the museum from the Scheman Building's second-floor, the new Lori A Jacobson Gallery, the addition of the Hilsinger Janson Collections Vault and more.

