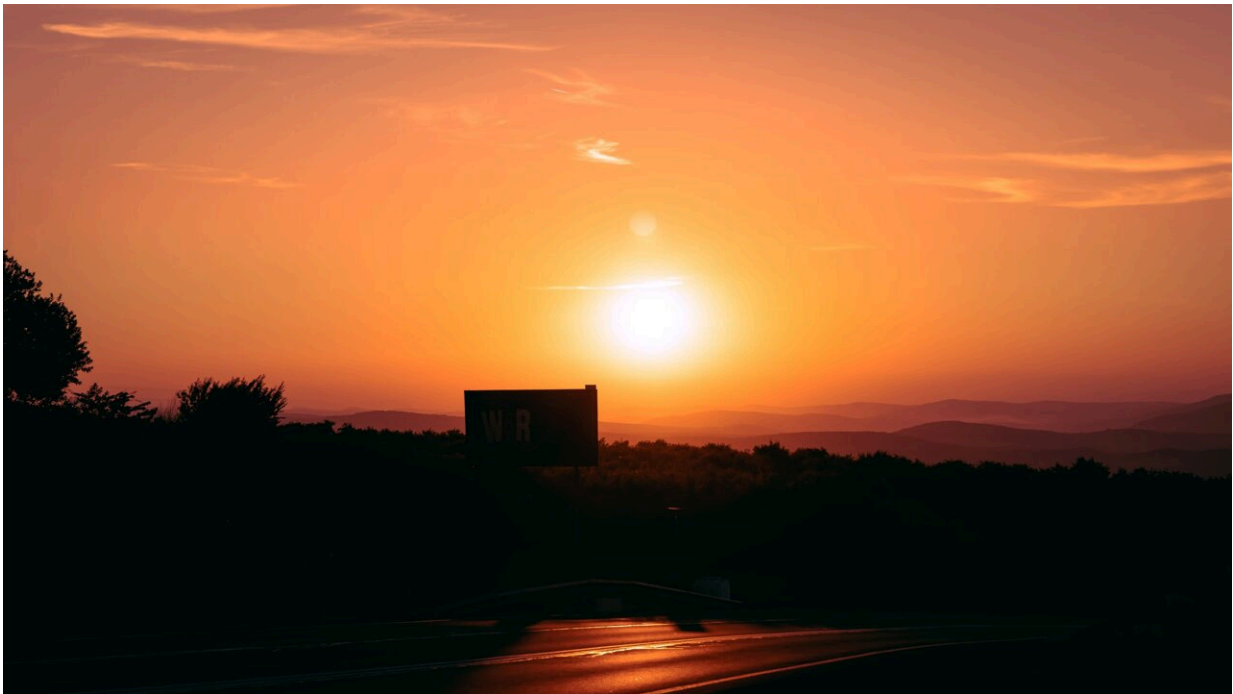


Anthropologist explores how heat impacts North Texans' physical, mental health

August 15 2022, by Adithi Ramakrishnan



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When Courtney Cecale moved into her North Texas house in the summer of 2020, she was in for a heat shock.

The plants in her car wilted and died before she could move them into the house. Her two black Labradors, Carl and Tony, got sick.

"There were just very small, minor things that, when you start to look at them all together, were a bit worrying," Cecale recalled.

Now, almost two years since her move, Cecale is determined to learn more about how heat impacts North Texans. An assistant anthropology professor at the University of North Texas, she's collected over 400 stories chronicling how the summer sun affects North Texans' ability to commute to work, stay healthy and more.

The [heat wave](#) shows no signs of letting up: there have been over 30 100-degree days in D-FW so far this year, with more expected in August.

For Cecale, the [summer heat](#) is more than a nuisance. It's dangerous. Her work shows how Texans face an uphill battle against the summer sun that can negatively impact their physical and [mental health](#). Cecale hopes sharing their stories will lead to policy changes that make Texan summers safer for its residents.

"We normalize heat because, what can you do? You can't turn down the sun," Cecale said. "But at the same time, people are getting sick and many people are dying. And I think that's something that I'm growing increasingly concerned about, the more I do this research."

Sizzling heat islands

Cecale has researched environmental issues in the past. She spent a year and a half in Peru studying melting glaciers, and has also looked at residential water use in Los Angeles.

She started seeking out North Texan heat stories in the spring of 2021. At first, her desire to study heat in Dallas-Fort Worth was met with confusion.

"A lot of people around me thought that it was a bit silly," she said. "Like, of course it's hot. Why are you making a problem out of something that is just normal everyday life?"

But while conducting environmental justice work in different parts of Dallas, Cecale saw how heat disproportionately affected communities in Dallas.

She found that many communities that didn't have access to air conditioning were also located in heat islands—areas in cities with lots of buildings and concrete that absorb heat, and not enough greenery to cool things down. Temperatures in heat islands can be several degrees hotter than in surrounding areas, making the summer heat even worse.

Cecale also realized neighborhood heat data often didn't account for variations from house to house, or street to street.

"We wanted to get a sense of where people are the hottest, and how they deal with it," Cecale said. "And oftentimes, how they avoid it."

Cecale and a few graduate and undergraduate student researchers conducted interviews for the project with North Texans over the phone and via video call. They also put up a survey on their North Texas Heat Research Project website that participants could fill out on their own time.

'Hell on earth'

Miserable, awful, grueling, atrocious.

Cecale said she's compiled a list of over 30 colorful words North Texans used to describe the heat. Her favorite response was from a Texan who said the heat was "hell on earth."

She heard from Texans who had to quit jobs that required them to spend extended time outdoors, because they were passing out on the clock with no worker protections.

She heard from Texans without central air conditioning in their homes who relied on [public spaces](#) like coffee shops and malls to stay cool on hot summer days—only for those spaces to shut down during the early months of the COVID-19 pandemic.

Many people noted that they stayed indoors more during the summer to avoid extreme heat. Azadeh Stark, a professor at the University of Texas at Dallas who is not involved with Cecale's research, said that can increase feelings of isolation and anxiety.

"The human is a social animal," said Stark. "We need each other, we need interaction, and even going outside, seeing other people, walking around ... as far as mental well-being, helps tremendously."

The story that touched Cecale the most was from an individual born and raised in Texas who struggles with long COVID-19 symptoms. The individual told Cecale that she's been having a tougher time resuming everyday activities over the past two years, since the heat makes her symptoms even worse.

"She's not able to babysit her grandchildren in the same way, she's not able to garden, she finds that she can't leave the house for most of the day during the summer," Cecale said. "And that's just nothing that she's ever experienced before."

Cecale broke her findings down into four main groups of heat impacts: health, transportation, work and infrastructure. But she said they all related to each other: Someone with a preexisting health condition might have an easier time managing the heat if they didn't have to commute to

work in a car without [air conditioning](#), for example.

Stories to solutions

Cecale's goal with the heat project was to collect a wide variety of stories that could be used to brainstorm solutions. She's submitted an article for publication on the health effects of heat that is currently under review, and is working with her graduate students to create a policy paper with a list of heat-related concerns she can present to the city.

She's also using her survey to involve North Texans in their own solutions. One of her survey questions asks people about their ideas to manage the heat, and Cecale said she's gotten some interesting responses.

One individual proposed a "heat offset," that would require developers to install a certain amount of trees for every tree cut down to build a new apartment or construction project.

In the meantime, Cecale recommended drinking water and limiting direct heat exposure to 60-90 minutes, when possible. She said if people stop sweating or start to feel dizzy or nauseated while outside, they should stop what they're doing and immediately get help.

Stark added that North Texans could try to venture outside in the evening to get some exercise or spend time outdoors when it's somewhat cooler. She also said cities in North Texas should consider adding more trees and green areas to help cool down hot city environments.

And Cecale is still requesting stories from North Texans on the research project's website, either in survey or interview form. She said she plans to keep the survey open through the end of the summer.

She's often moved by hearing what North Texans go through, and says

their stories help her gain a better understanding of the world around her.

"I think there's something really special about people being willing to share something about their lives with you," she said. "And that never gets old."

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Citation: Anthropologist explores how heat impacts North Texans' physical, mental health (2022, August 15) retrieved 8 May 2024 from <https://phys.org/news/2022-08-anthropologist-explores-impacts-north-texans.html>

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