

## The Home Forum

### The way it was

The author interviewed several people to find out what life was like in a hot climate before air conditioning was widespread. (Try it yourself: Ask some older relatives how they kept cool in the summertime.)

"From 1 to 3 in the afternoon during the summer, we all had to stay indoors," says Loretta Carrillo, who grew up outside San Antonio, Texas, in the 1950s and 1960s. "We had a 'swamp cooler,' which blew freezing-cold air on you if you were right in front of it. My mother made us sit in the living room and read books on blistering hot summer afternoons. When I got a little older, they built a shopping center near us, and we would go there on hot days because they had air conditioning. That was 1964."

All that enforced summer reading was a good thing. Ms. Carrillo is now a professor at Cornell University in Ithaca, N.Y.

\* \* \*

Lena Carver grew up in Washington, D.C., in the 1920s and 1930s. Her family had a small electric fan, good only "if you sat right in front of it." As children, Lena and her sisters spent as much time as possible outside because - even though it was hot - they knew it was cooler than being inside. "There was a nice big shade tree in the side yard," Mrs. Carver says. "We had chairs set up underneath the tree, and we spent all of our time there."

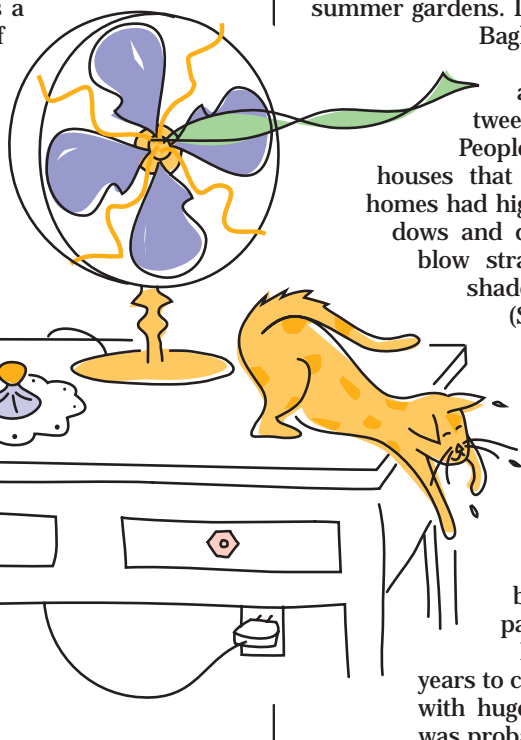
"What most people today don't seem to understand is that it was summer and we expected it to be hot," she concludes. "We didn't have any other options."

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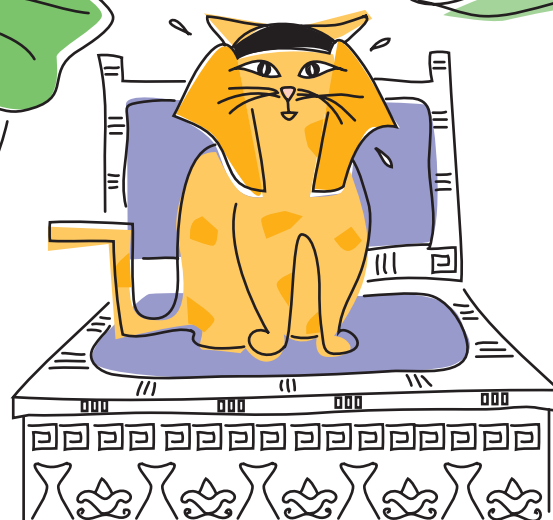
"Mother sprinkled [water on] our sheets at night, before we went to bed," says Jean Pearson, who also grew up in Washington, D.C., in the 1930s and '40s. "By the time we went to sleep, we at least felt cooler." Mrs. Pearson recalls being "damp" all the time in the heat. "We were just dripping with sweat," she said. "No matter how nice you wanted to look, you always looked like a limp dishrag within minutes of going outside."

Water figured prominently into her play as a child. They had tubs of water in the yard to play with and the hose was always going. "But it was summer, and it was hot, and we were hot," she says. "End of story."

R.D.



CELEBRATE A CENTURY  
OF AIR CONDITIONING  
BY READING ABOUT  
WHAT LIFE WAS LIKE IN  
SUMMERS PAST.



ILLUSTRATIONS BY KAREN SCHNEIDER - STAFF

## A COOL HISTORY

**I**T'S hot. Too hot to ride your bike or play outside. So hot it makes you tired. What do you do? Go in your house, go to the mall, or go to a movie where it's nice and cool - thanks to air conditioning.

Air conditioning celebrated its 100th birthday last month. On July 17, 1902, Willis Haviland Carrier installed the first air conditioner at a printing plant in Brooklyn, N.Y. It wasn't to help the workers at the factory, though. It was to keep the paper cool and dry so it wouldn't curl in the midsummer heat and humidity. That way, the printing presses could apply the ink evenly.

Mr. Carrier started a revolution. Air conditioning allowed cities to develop in deserts. It changed the design of houses and skyscrapers. It's what allows us to go to work - or to school - year-round.

How did people keep cool before AC?

Ancient Egyptians were probably the first to discover that hot, dry breezes became moist and cool as they blew through dampened mats or past porous clay pots full of water. Ancient Greeks, Romans, and people living in India also used this principle to cool their dwellings.

Roman emperors, meanwhile, commanded that snow be brought down from the mountains to cool their summer gardens. In the eighth century, Caliph Al-Mahdi of Baghdad (in modern-day Iraq) had slaves fan blocks of ice to create cool breezes. He also had snow packed into the space between the double walls of his summer house.

People in many warmer climes designed houses that promoted good air circulation. Their homes had high ceilings, deep porches, and large windows and doors positioned so that breezes could blow straight through. They planted trees for shade. Fountains and pools were also cooling. (Swimming pools didn't become popular until the mid-1800s.)

### Carriage air conditioning

My favorite cooling-down invention was called the All-Weather Eye. It was invented by William Whiteley in 1884. He put blocks of ice in a holder under horse carriages and then attached a fan to the axle. As the wheels turned, the fan blew air across the ice and up into the passenger compartment.

Fans have been used for thousands of years to cool off. Slaves fanned Egyptian pharaohs with huge lotus leaves. The pleated (folded) fan was probably modeled after the way a bat folds its

wings. It first appeared in Japan around AD 700. Handheld fans were ornamental as well as practical. (Have you ever made a fan by pleating a piece of paper? You can feel a lot cooler by moving the air around.)

The first electric fan - a two-bladed desk version - was produced commercially by the Crocker & Curtis Electric Motor Co. in 1882. The first oscillating (waving back and forth) electric fan, which could cool a larger area, was produced in 1908. Electric fans became important accessories in 20th-century office buildings.

Within 20 years of Carrier's first machine being installed in Brooklyn, movie theaters in Chicago, New York, and Los Angeles began to install air conditioners. Remember, these were large buildings that had to be totally dark - no sunlight or streetlights - to show a movie. It's hard to let air in without letting in light, too. Before air conditioning, you couldn't show movies in the summer when it was too hot because the theaters would be stifling inside.

Department stores were quick to adopt the new cooling technology, too. Big stores advertised, "Come on in, it's cool inside." Office buildings were important laboratories for air-conditioning advances. The modern glass-walled skyscraper is possible only because the inside climate can be carefully controlled. With summer sunlight streaming through all that glass, the temperature inside would be unbearable otherwise.

### An updated version of ancient Egypt's solution

In the late 1930s, the "swamp cooler" or evaporative cooler arrived. It works on the same principle that the wet mats of ancient Egypt did: As water evaporates, it absorbs heat. The swamp cooler has a fan that pulls hot, dry air through water-dampened mats. The moving air evaporates the water, cooling the air. Swamp coolers are still used today, but they work only in hot, dry regions like the American Southwest. (Here's an experiment to show you why: Put on a damp T-shirt and stand in front of a fan. If you live in a dry climate, the T-shirt will dry out and you'll feel cool. If you live in a humid climate, you'll mostly just feel damp. That's because the air contains so much humidity that the water in the T-shirt won't evaporate quickly.)

By the 1950s, window air conditioners and central air conditioners were being advertised as devices "for the millions, not just for millionaires." They were very popular.

Houses, particularly in the American South, used to be designed with wide, overhanging eaves (for shade), thick walls (for insulation), and high ceilings (for air circulation). Attics had exhaust fans. But as new homes relied on air conditioning, these traditional features began to disappear. One-

Continued on next page

# Sweaty solutions

**I**N THE 19th century, you might have taken a bath once a week – maybe. People were not as picky about personal cleanliness as they are today. Taking a bath meant heating water on a wood- or coal-fired stove and then pouring it into a big metal tub on a weekly (perhaps) “bath night.”

People who wanted to smell good might splash on some perfume or cologne to cover up their body odor.

The first product marketed exclusively as deodorant in the United States was called Mum. It was 1888. Mum was a cream sold in a little jar. You put it on with your fingers.

Solid “stick” deodorant was developed in the late 1940s, but customers complained about friction. A researcher at Bristol-Myers solved the problem by creating a deodorant applicator based on the same principle as the recently invented ballpoint pen. The result: Ban Roll-On deodorant.

Aerosol deodorants were invented in the 1960s and were very popular. But by the '80s, many consumers realized that aerosol sprays pumped CFCs (chlorofluorocarbons) into the atmosphere. CFCs were destroying earth's ozone layer. Aerosols were dropped. It was back to roll-ons, and the stick. Today there are powder and non-CFC aerosols, too.

R.D.

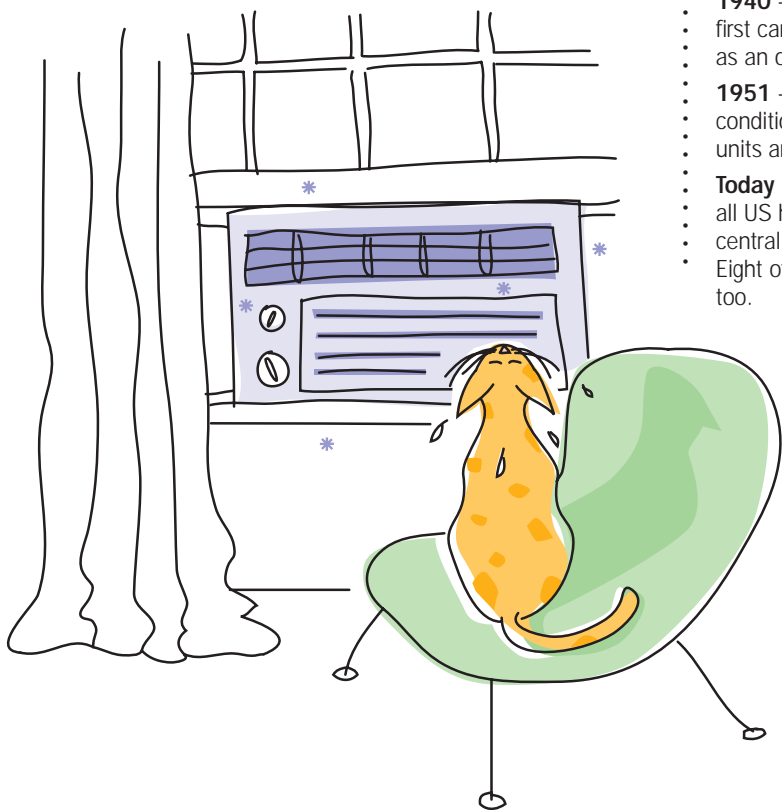
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story ranch houses with big picture windows, no front porch, and sliding glass doors in the back became common. Porch sitting was replaced by the backyard barbecue.

By 1970, people were moving to the South and the Southwest in great numbers. Why? Air conditioning. It led to the rise of cities like Las Vegas, Phoenix, Houston, and Miami. People could now live comfortably in these areas year-round. Climate was no longer a significant factor because it could be controlled.

Next time it's a really hot day and you step into a shopping mall, a movie theater, an office building, your home, your school, or your automobile, think about what it would have been like if Mr. Carrier hadn't come up with the idea for air conditioning 100 years ago.

Rachel Dickinson



## Milestones in coolness

- 2000 BC - Egyptians hang damp mats in the doorways of their homes as an early form of 'swamp coolers.'
- 1500s - Mechanical fans invented.
- 1800s - Fans and water-based 'cooling towers' appear in New England textile mills.
- 1851 - John Gorrie, a Florida doctor, invents an icemaking machine to cool his patients.
- 1882 - Electric table fan is invented. (Electric ceiling fans debut the same year.)
- 1902 - Willis Haviland Carrier invents air conditioning and puts the first unit in a Brooklyn printing plant.
- 1914 - Carrier installs air conditioning in the first home, a mansion in Minneapolis. Cost: \$10,000.
- 1917 - A Chicago movie theater is air conditioned.
- 1926 - The United States Capitol chambers are air conditioned.
- 1930 - Railroad diner cars on the Washington-New York route are air conditioned.
- 1931 - The coolant Freon is invented. It allows for smaller air-conditioning units.
- 1939 - 'Swamp cooler' machines are mass-marketed. They use water and fans to cool.
- 1940 - Packard is the first car with 'factory air' as an option.
- 1951 - Inexpensive air-conditioning window units are introduced.
- Today - Almost half of all US homes have central air conditioning. Eight of 10 cars have it, too.

### TODAY'S ARTICLE ON CHRISTIAN SCIENCE

*Bringing a spiritual perspective to daily life*

## True confessions

A FAMOUS EDITOR of children's books was once asked what her qualifications were to determine what would be a good book for children. She responded, "Well, I am a former child, and I haven't forgotten a thing."

When she was offered a promotion to become an editor in the adult section, she refused, and later wrote to a friend that she'd said, "...thank you very much but I had to get back to my desk to publish some more good books for bad children" (Leonard Marcus, "Dear Genius - The Letters of Ursula Nordstrom").

These statements rang a bell for me, since I also am a former child, and a former "bad" child at that. I confess to the following naughtiness:

First, to my brother Rex. Remember how you were the only one in the family with enough discipline to put his candy loot from holidays in a small safe in your room? I am the one who figured out how to open the safe and occasionally snatched a candy bar. Now you know.

Second, to my brother Glenn. I was the one who pushed the TV cart that

caught on a crack in the floor, tipped the TV over, breaking it. I told Mom you did it, and you were too little to defend yourself or even to know what was going on. For years after this I dreamed of ways to confess to our mom, to clear your name, but by then I was more ashamed of lying to her than TV-tipping, and I stayed silent. Mom, Glenn didn't do it; I did.

Third, I want to apologize to the little girl on the corner whom I teased to the point of tears one day. I don't know why I behaved that way, and I am sorry.

There. I feel better. But not just because I confessed. I feel better because I know I wouldn't do any of those things today. Today I know that stealing is wrong, and I remember how little pleasure it gave me to eat those candy bars. I also know that lying is wrong and how terrible it felt to be too ashamed to tell my mom the real truth. I know that being mean to someone is wrong. Just as I don't want people to be mean to me, I would not want to be mean to them.

Thinking about my actions each day, leaving the past behind me, I know now to make sure that what I do represents the real me. Nothing will ever take from me my true self. You may

wonder how I know who my true self is. For one thing, I've made friends with God. He is a great friend. He never says "How terrible" when I tell Him I want to correct something. God, as a loving parent, has a way of helping each one of us know how special we are. He is proud of us, and when we listen to His guidance and reject our previous behavior, which we regret, He washes clean even the memory of a moment when we are less than lovely.

God is the only one who could accurately tell me if I was a bad person. But since God made me, I am like Him; I reflect Him. And He is not bad; He is good, all good. No room for terrible, not even a smidgen of space for mistakes. If I want to correct something I said or did, I do it. I'm not afraid of being punished or caught or in trouble.

I would rather face up to what was not like God and correct it than to live with a guilty conscience. The Bible says, "I'd rather scrub floors in the

### God washes clean even the memory of a moment when we are less than lovely.

house of my God than be honored as a guest in the palace of sin" (Ps. 84:10, Peterson translation). And Mary

Baker Eddy, the woman who founded this newspaper, wrote, "It were better to be exposed to every plague on earth than to endure the cumulative effects of a guilty conscience" ("Science and Health with Key to the Scriptures," pg. 405).

When you do something wrong, it may seem like a small thing, something you may not even get caught at. But because you and I are both God's children, we know the difference between right and wrong. And we really do want to do what's right. Even if it means we don't get a little bit of the candy we wanted. Even if it means we have to face the music by admitting we are the one that tipped over the TV. Even if it means we can't swing on someone's swing. We can say "I'm sorry" and really and mean it.

Correcting something we've done is like focusing a camera so the picture isn't fuzzy. This frees us to be happy because it helps us know that we are accurately reflecting God.

We're not on a path that has no turning back. Reflection isn't an effort. You don't stand in front of a mirror and plead with it to reflect accurately. It is who you are, who I am, and nothing can take away our true self.

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FROM A  
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