

THE WALL STREET JOURNAL.

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URBAN GARDNER

Beyond Human Control

By **RALPH GARDNER JR.**

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Over the course of a longish career, perhaps two of my articles stand out as having provided any news readers could use. One of them never even got published: It was for some start-up magazine that didn't get off the ground. I was assigned to do a piece on baldness cures, and it turns out there aren't any, with the exception of a hairpiece or hair plugs.



Rob Cooper's company has installed lightning rods on at least 100 buildings in Manhattan. *MIMI RITZEN CRAWFORD FOR THE WALL STREET JOURNAL*

One might have thought this information dispiriting. But as soon as you realize there's nothing you can do about hair loss, except perhaps work on your personality, it's curiously liberating. It's one less thing to worry about.

The second piece that provided concise practical information was—well, actually, this one. And I discovered it last week while standing atop the Aire, a new 43-story, 450-foot residential skyscraper at 150 Amsterdam Ave., directly behind Lincoln Center. I was there to discuss lightning rods with Rob Cooper, the owner of a company, Associated

Lightning Rod, that has installed the devices on at least 100 buildings in Manhattan alone, including some of its most prominent (certainly from the point of view of punctuating the skyline and attracting lightning). These include the General Motors Building, the Majestic Apartments and the San Remo on Central Park West, the Trump Soho and 1 Fifth Ave. Also, the Goldman Sachs Tower, that bluish skyscraper directly across the Hudson River from Wall Street in Jersey City that looks like it ought to be in Houston.

In any case, it seems I'd been giving lightning more credit than it deserved. I'd imbued it with something resembling volition. My impression was that the reason you went to the expense of installing lightning rods on skyscrapers, or on your house for that matter—Mr. Cooper also does a lot of high-end homes in the Hamptons—wasn't just to attract lightning and render it harmless, but also to distract it from other more vulnerable and precious objects, such as children and pets, and perhaps most pressingly yourself, if you happen to be standing outdoors.

Allow me to offer an example. Say you live in a house surrounded by tall trees but that is also equipped with lightning rods. My mistaken impression was that as the lightning is speeding toward your homeowners policy it sees both your majestic oak and your gleaming \$5 aluminum lightning rod and decides to go for the lightning rod, thus eliminating its inclination to split your tree in two and send it crashing into your home, creating a crater in your roof the size of a Chevy Suburban. In other words, it's like a raging bull in the Plaza de Toros, easily distracted by the matador's red cape.

Unfortunately not. "If it wants to hit the tree it will still hit the tree," Mr. Cooper explained.

You mean there's not even a teeny weenie cone of protection? "There's really nowhere safe outside during a thunderstorm," he stated flatly.

I had another question. Actually, I had lots of questions as we stepped along the building's parapet and I resisted the temptation to look down. For example, since it's taller, would the Majestic take the hit for the storied Dakota, the much shorter apartment building next door (the Aire had spectacular views from its summit and we could more or less see all the buildings in question)?

"Tall buildings get hit more frequently," Mr. Cooper said.

But what if the lightning was coming from a different direction? Unfortunately, lightning is going to go wherever it wants. If there happens to be a rod there, good for you. Sometimes there isn't. "It's even possible for the side of a tall building to get hit," explained Jennifer Morgan of East Coast Lightning Equipment, who supplies Mr.

Cooper's rods, cables, ground terminals, surge-protection devices, etc., and was along for our tour.

"Lightning loves the corners of buildings," Mr. Cooper added. "It does damage to the corners of buildings."

He was thinking in particular of the GM Building, a frequent lightning target. "Fifteen years ago it got hit. A big piece of marble from the corner of the building hit Fifth Avenue."

Installing the lightning rods is apparently the easy part. Getting them to ground, especially in New York City with all that concrete, is where the challenge lies. "Rob takes for granted how difficult the job is here," Ms. Morgan said. "You can't even see the ground here."

For starters, you have to run cables down the length of the building, at least in newer buildings. Older steel-frame buildings actually offer an advantage over newer concrete buildings because their frames serve as conductors. You may need to run the cable from the rod only as far as the nearest point on the metal frame.

Mr. Cooper estimates that an average skyscraper costs about \$100,000 to equip with lightning rods. However, he seemed especially proud of his work on the Aire, whose owner, Albert Kalimian, had ordered the cables concealed. Even the roof coping, which nobody but maintenance crews would ever see, was made of special 3/16-inch-thick aluminum capable of absorbing lightning. The cables run inside rather than on top of the ledge. "It is very expensive to make it that thick, to be able to take a direct strike from lightning without burning through," the lightning expert explained.

And then there were subtle touches, for example an exposed third-floor terrace where a virtually invisible piece of metal piping lay almost flush with the ledge. But it was nonetheless prominent enough that, had lightning struck, it would have eliminated the need for an upright lightning rod that could have detracted from the building's sleek, minimalist appearance.

It was actually a good thing that we'd visited the roof because Mr. Cooper discovered that one lighting rod, attached to a red hazard light—the sort that blinks on and off to warn away low flying aircraft—had somehow come loose and fallen sideways.

What would have happened in a lightning storm if the malfunction hadn't been detected and the rod returned to an upright position and tightened, as Mr. Cooper was doing now? "It probably would have hit and broken the glass," he explained. It would not have headed for the next beacon, just a few feet away. "You can't influence where the

lightning hits," he said.

Which is why I'm looking forward to enjoying my next thunderstorm from our basement.

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