MYSTERIES OF TIME AND SPACE

POPULAR SCIENCE

September/
October
2017

CARIBOU ARE SUPER PUNCTUAL—AND IT'S A PROBLEM

—

THE BEST TIME TO EAT, SLEEP, BE CREATIVE...

—

WHAT CAME BEFORE THE BIG BANG?

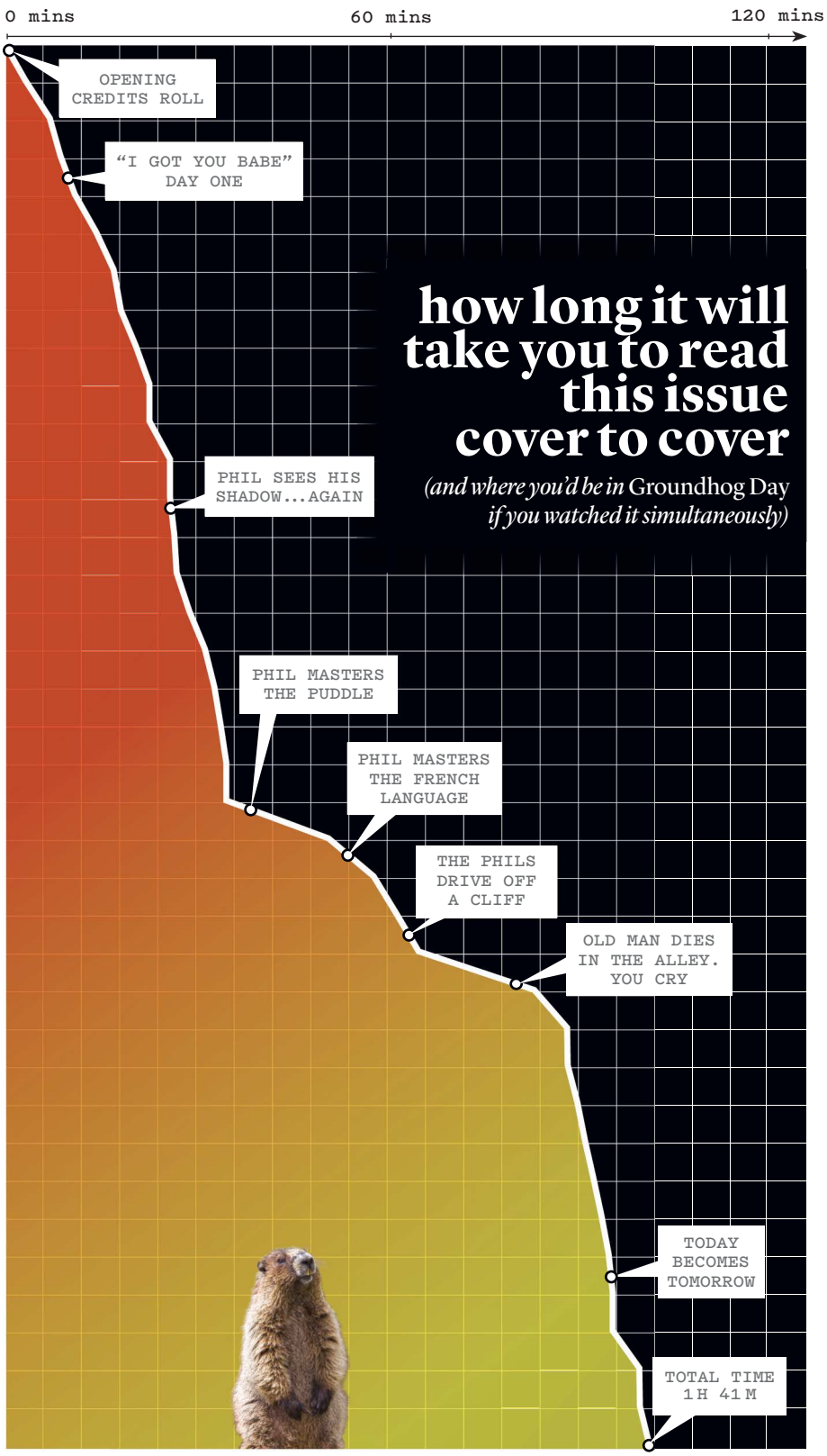
WHAT TIME IS IT? YOU HAVE NO IDEA

PLUS

13

Crazy Clocks, from Ancient to Atomic

CONTENTS



how long it will take you to read this issue cover to cover

(and where you'd be in Groundhog Day *if you watched it simultaneously)*

SHUTTERSTOCK

cover photograph by The Voorhes / infographic by Sara Chodosh

THE MAN WHO WOULD KILL YOUR HOLIDAYS

STEVE HANKE IS AGITATED. AN INFLUENTIAL ECONOMIST given to sonorous talks on troubled currencies, he sits in a book-jammed office, jabbing his finger at an offending email printout. It's from a factotum at Johns Hopkins University, where Hanke is a professor of Applied Economics. The email informs the faculty that, due to the ever-shifting date of Labor Day, fall classes will begin on a Thursday (but on a Monday schedule) and skip a Friday. "Every year," says Hanke, "I have to completely revise my schedule." Such jiggering is a waste of his time. Multiply his frustration by an entire school, add the time suck at thousands of other places making similar changes—sports leagues, government agencies, your company—and you get chaos! Trillions of wasted work hours! "Imagine the meetings!" says Hanke, hoisting his eyebrows like a blazer-wearing radical.

Hanke is indeed a radical, but one on a rational mission. The son of a watchmaker, he craves precise measurements. He wants to shred our current Gregorian calendar, adopted in the 16th century, and replace its messy floating dates and leap years with clocklike regularity. Under the Hanke-Henry Permanent Calendar, developed with Johns Hopkins physics and astronomy professor Richard Conn-Henry, every January 1 falls on a Monday. Each day of each month maintains its position year after year. Your birthday would always fall on the same day of the week. Never again would you need to buy a new Curious Kittens wall calendar. Imagine the eternal surety: "You would know, every Wednesday, forever, that the Baltimore Orioles will be playing the Toronto Blue Jays, and that's it," Hanke says.

The Hanke-Henry system would ground floating holidays like Memorial and Labor days. In addition, the grid pins Christmas Eve and New Year's Eve on Sundays, nixing time (and money) wasted wrestling with year-end schedules. "A positive pop in GDP growth," Hanke muses.

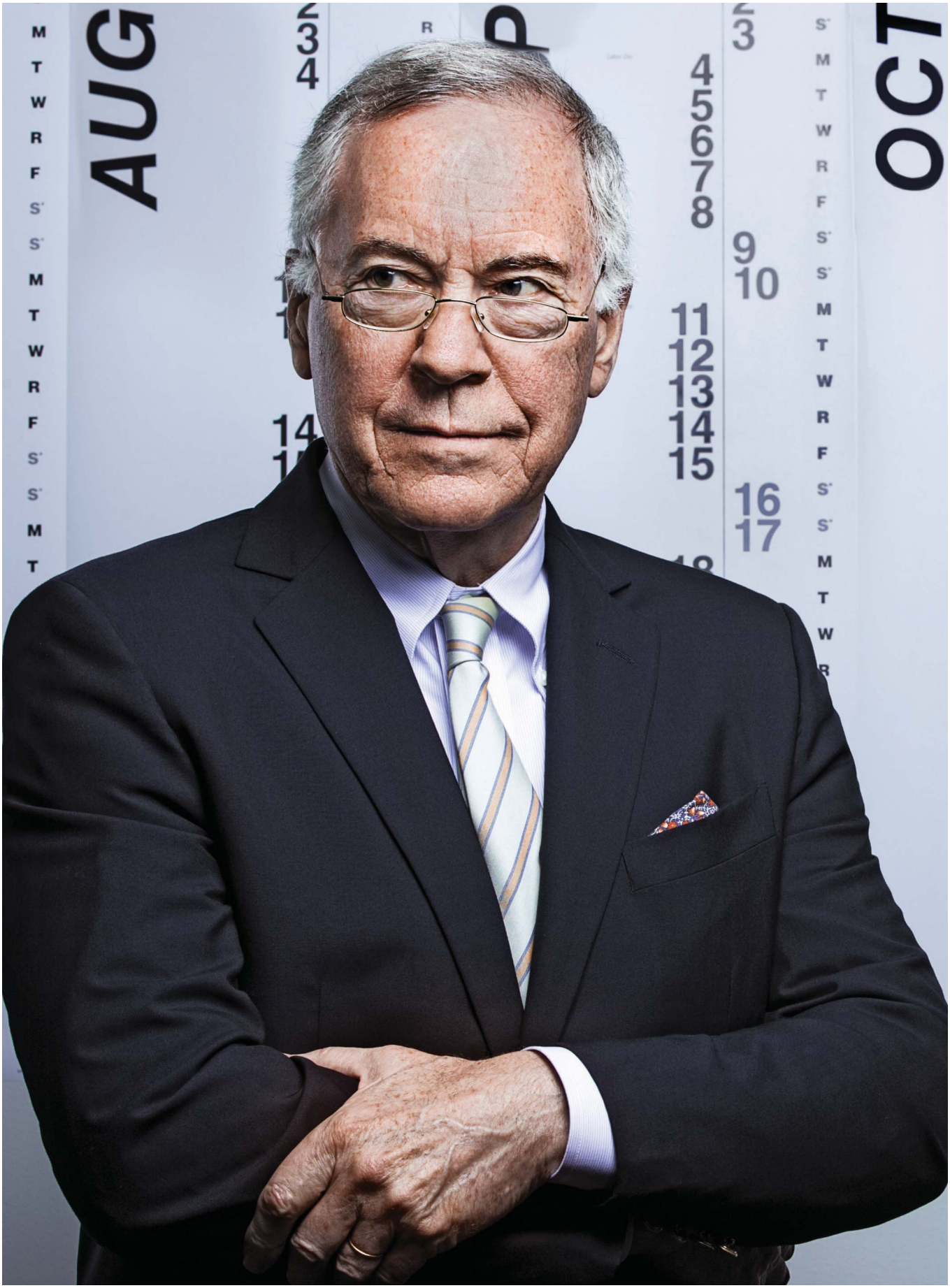
Hanke's not alone in detesting the current taxonomy of our divided years. It took nearly 200 years for England to adopt Pope Gregory XIII's calendar, which debuted in 1582; Orthodox churches still haven't. Gregory sought to fix the Julian system, which was plagued by a pesky almost-11-minute annual drift, shifting the equinox earlier each year. The calendar's enemies are legion. In 1793, French revolutionaries assaulted it, instituting 10-day weeks. In 1928, Kodak founder George Eastman tried running workers on a 13-month calendar. But such reforms fail, mostly because they include the odd long week to catch up with Earth's solar orbit. This lets the Sabbath shift, which incenses churchgoers.

Hanke's plan keeps faith by funneling our orbit into seven-day chunks. This works out to a four-quarter 30-30-31 pattern, for a rhythmic 364-day year. Rather than dealing with the messy 1.2422-day remainder each time we spin around the sun (a problem that quadrennial leap days don't fully resolve), this system lets the time pile up for five or six years until it makes a work-free Leap Week.

Economists like Lawrence Mishel, president of the labor-leaning Economic Policy Group, think that's a bad deal. "That's a loss of leisure for many people who do not have access to vacation days," Mishel says. "This would never pass a popular vote. Nor should it."

Despite opposition, Hanke believes his bottom-line approach will prevail. What he needs is an early adopter—an Eastman, maybe a sports-team owner looking to cut costs. In any case, a full-out campaign to convince the world will have to come from someone else. The reason, he says: "I don't have the time."

> **"YOU WOULD KNOW, EVERY WEDNESDAY, FOREVER, THAT THE ORIOLES ARE PLAYING THE BLUE JAYS."**
> *-STEVE HANKE,* OF HIS UNIFORM CALENDAR



by Matt Hongoltz-Hetling / photograph by Marius Bugge