

The Phantom Menace

Was there another, as yet unidentified double agent inside the CIA in 1985, when top intelligence assets were spectacularly betrayed? **BY DAVID WISE**

Contributors	4
Discussion	6
Phenomena	9
American Icon: Mickey Grows Up	
Art: Fresh Produce	
Tribute: Parts Unknown	
Small Talk: Mary Beard	
Conservation: Rhinoplasty	
Artifact: Early Bloomers	



Behold the Blobfish **19**

The jiggly, glum-faced ocean dweller is challenging our ideas of beauty

BY FRANZ LIDZ

Ask Smithsonian **104**

COVER: George Washington illustration by Mark Ulriksen

INSIDE: Secrets of American History icon illustration by Jon Reinfurt

THIS PAGE: The mailbox on which spy Aldrich Ames drew chalk lines to signal a meeting with the KGB

34

The Devil's Tongue

The Salem witch trials are indelibly burned into the American imagination. New scholarship probes the mysterious "witness" who sparked the persecution

BY STACY SCHIFF

40

The Rescue Mission

An exclusive first peek into a warehouse in Utah where federal agents are storing tens of thousands of looted Native American artifacts recovered in a massive sting

BY KATHLEEN SHARP

50

The Horse Thief

The untold story of how George Armstrong Custer acquired a famous stallion named Don Juan casts new light on the gallant young cavalry officer and frontiersman

BY T.J. STILES

56

Skyfall

In the "secret" journal he kept in prison, U-2 pilot Gary Powers recounts his harrowing shoot-down in 1960—an event that escalated U.S.-Soviet tensions to new heights

BY MICHAEL DOBBS

58

Slavery's Trail of Tears

In the 50 years before the Civil War, about a million enslaved African-Americans were marched to the Deep South in a tragic, largely forgotten episode in U.S. history

BY EDWARD BALL

Rhinoplasticity

Can advanced devices and genetics save imperiled species?

On the black market, a pound of rhino horn goes for \$30,000—an irresistible sum for the merciless poachers and criminal syndicates that illegally slaughter thousands of rhinos each year in Asia and especially Africa. But now there's a new way to manufacture a facsimile of the coveted material—one of several high-tech efforts to put poachers out of business and save rhinos in the wild from extinction.

Pembient, a Seattle-based bioengineering firm, is using advances in genomic sequencing and DNA synthesis to make knock-off rhino horn in the lab. “If there was ever a time to try something, this would be it,” says Matthew Markus, the company’s co-founder. The start-up’s strategy is based on his observation that pirated software can ruin a tech company that made the original product. Pembient uses yeast engineered with genes that produce rhino keratin, the major protein in horn (also in human hair and nails). After extracting the keratin from the yeast, the technicians mix it with rhino DNA, so the final product has a genetic signature similar to that of actual rhino horn. Markus says he foresees the day when illicit buyers will use genetic tests to authenticate their loot, and he wants his counterfeits to pass muster. In time he hopes to grow—or 3-D print—entire horns

and flood the black market with them, eliminating the incentive to kill the two-ton animals for the sake of their three- or four-pound horns.

A hundred years ago there were 500,000 rhinos worldwide; today there are perhaps 30,000, and four out of five rhinoceros species are classified as vulnerable or critically endangered. Last year, in South Africa alone, poachers killed more than 1,200 rhinos, and 2015 is on track to be just as bad.

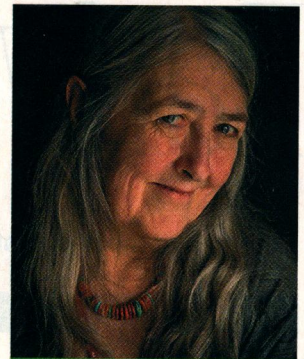
Another high-tech remedy is underway there. Members of the Rhino Rescue Project capture a live animal and painlessly inject an antiparasitic drug and a dye into the horn; the chemicals, though harmless to the animal’s health, disfigure the horn, rendering it useless as an ornament or, ground up, as traditional medicine, since the injected drug can cause nausea, vomiting and convulsions in people. “We’ve lost only seven animals over a five-year

period,” says Lorinda Hern, a co-founder of the organization. “This is a triumph by any standard, especially when you consider that South Africa is losing four animals to poaching a day.”

In yet another approach, Protect, a British nonprofit group, has begun implanting South African rhinos in national parks with heart-rate monitors and embedding video cameras in their horns. Whenever an animal’s heart rate jumps, a radio collar sends an alarm, along with GPS coordinates, to park officials, who dispatch rangers to the site by truck or helicopter. “Typically, an anti-poaching force finds out about an incident days later,” says Steve Piper, Protect’s director. “In this case, they’re hot on the poachers’ tracks.” The hope is that poachers eventually will view rhinos wearing the radio collar—bright turquoise for maximum effect—as not worth the risk. —LAURA KRANTZ



A tiny camera is embedded in the horn of a black rhino.



SMALL TALK

Mary Beard

The Cambridge classicist has a new book, *SPQR: A History of Ancient Rome*, out this month.

Which Roman figures would you most like to invite to your dinner table?

Cicero has a modern rep as a fearful old bore, but the Romans thought he was the wittiest man ever. To sit next to him, the empress Livia—I don’t believe the allegations of her poisoning habits. And a massage artist from a grand set of Roman baths, who would surely have the best stories to tell of all.

What would people be surprised to learn comes from ancient Rome?

They were the first people in the West to sort out lavatory technology, though we would find strange their enthusiasm for “multi-seater” bathrooms, with everyone going together.

Do you have a favorite Roman slogan?

When the historian Tacitus said “They create desolation and call it peace,” he gave us a phrase that described conquests over the centuries, up to our own.

Why does Rome still matter?

The extraordinary tradition that underpins much of Western literature is one thing, but so is the inheritance of our politics, beyond terminology (Senate, capitol). The arguments that followed Cicero’s execution of Catiline without trial in 63 B.C. still inform our own debates about civil liberties and homeland security.

CONSERVATION