

Treasure

STORY BY KATHLEEN STRAND



The oldest public institutional herbarium west of the Mississippi River, the Dunn-Palmer Herbarium contains more than 225,000 plant specimens, including the winged evening primrose pictured here.

THE SMITHSONIAN INSTITUTION, "America's attic," houses some of the country's greatest treasures. Among its 240 million pieces: Neil Armstrong's *Apollo 11* spacesuit, the Lockheed Vega Amelia Earhart used to fly solo across the Atlantic and John James Audubon's illustrated guide to the four-footed animals of North America. Mizzou, too, has a collection of interesting, if lesser-known, treasures. From papers to plants, from bugs to bows, the University's valuables are safely stored in "Missouri's vault."

BUGGIN' OUT

Inside, there are elephant beetles the size of a baseball; blood-sucking cone noses, an insect that carries deadly Chagas' disease; mosquitoes that carry malaria; fire ants;

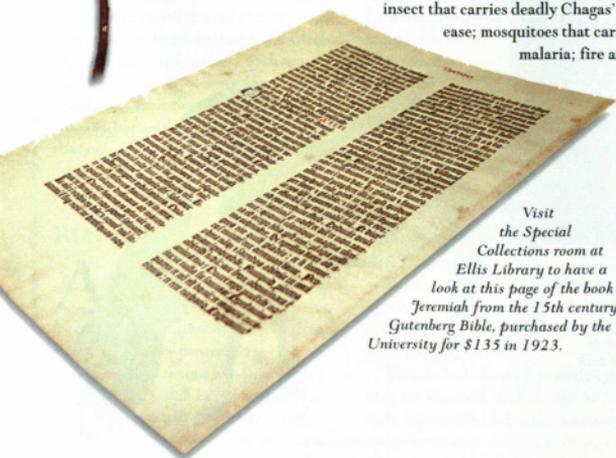
killer bees. No need to worry; they're all dead.

The Wilbur R. Enns Entomology Museum in the Agriculture Building houses more than 6 million invertebrate species, creepy and crawly, beautiful and fragile. Thousands of grade school students and tourists peek in on the operation every year.

The collection does more than gross out its guests, however. It's a research museum. Scientists use the specimens for all kinds of things, including charting the historic distribution of a species or tracing evolutionary relationships among species. A taxonomist with the Smithsonian borrowed part of the museum's water strider collection to assist him in revising its genus and creating a taxonomic key (the "guidebook" used to identify a specimen). As a result, several new species of water striders may be named.

The museum's collection of water striders is massive, thanks to a 1996 donation by the Missouri Department of Conservation of 4.5 million aquatic invertebrates. The department collected them from the state's waterways during a 35-year period. A grant from the National Science Foundation allowed the museum to bring the state's collection—some of which were kept in old mayonnaise jars—to campus and properly store the specimens.

It's handy to keep the condiments



Visit the Special Collections room at Ellis Library to have a look at this page of the book of Jeremiah from the 15th century Gutenberg Bible, purchased by the University for \$135 in 1923.

Trove

PHOTOS BY STEVE MORSE



There's no need to fear this giant grasshopper or any of the more than 6 million crawling invertebrate species housed in the Wilber R. Enns Entomology Museum; they're all dead.

around where bugs are concerned. Museum Director Robert Sites picked up some edible insects during his last trip to Thailand. Cicadas, stink bugs, "whatever collects in the porch lights," he says, are fair gustatorial game. During one visit, Sites sampled the Malang mang-dah, a 4-inch waterbug. Like guacamole, it's mashed and seasoned into a lumpy paste. How does it taste? "Definitely not like chicken," he says. Maybe it just needs more mayo.

LEAF OF HISTORY

On the fourth floor of Ellis Library, in a locked Special Collections room, the University stores one of its most historically important possessions: a leaf from a Gutenberg Bible. "It's a treasure," says Margaret Howell, who's been looking after MU's rare books for almost 30 years. "It changed history."

Around 1455 in Mainz, Germany, a goldsmith named Johann Gutenberg devised the first Western moveable-type printing system. He produced approximately 180 copies of the Bible, printed in Latin, on handmade paper or vellum. The Gothic typeface was designed to look like handwriting, so that the Bibles would be more readily accepted by the public. Some of the book's 641 leaves were elaborately hand-decorated with red and blue flourishes. Fewer than 50 years later, an estimated half-million books of all types were circulating, thanks to the new printing

technique. *Life* magazine called publishing the Bible the No. 1 event of the last millennium, writing that Gutenberg "unleashed an information epidemic that rages to this day."

Throughout the following centuries, the Gutenberg Bibles were scattered across Europe. Approximately 21 complete copies currently exist (nine in the United States).

The University purchased its leaf, a page from the book of Jeremiah, in 1923 for \$135. It was published in 1921 and sold as a book, *A Noble Fragment Being a Leaf of the Gutenberg Bible 1450-1455*, with a foreword about the Gutenberg Bible written by noted bibliographer A. Edward Newton. Newton explained that the Bible from which the leaf was taken was incomplete, so it was broken apart and sold. Two copies of *A Noble Fragment* sold in 2000—although they are rarely available—for \$36,000 and \$46,000. In 1978, a complete Gutenberg Bible sold for \$2 million.

In the 1870s, book agent Henry Stevens wrote to his client George Brinley, who had just acquired a copy of the Gutenberg Bible: "Pray, Sir, ponder for a moment and appreciate the rarity and importance of this precious consignment from the old world to the new. Not only is it the first Bible, but it is the first book ever printed. It was read in Europe half a century before America was discovered. It is not possible for many men ever

to touch or even look upon a page of a Gutenberg Bible." Visitors may request to see the leaf in the Special Collections room at Ellis Library.

PLANT KINGDOM

The Dunn-Palmer Herbarium, founded in 1856, is the oldest public institutional herbarium west of the Mississippi River. Located in the Museum Support Center on Rock Quarry Road, it contains more than 225,000 plant specimens, including ferns, conifers, mosses, fungi and algae. It also boasts more Missouri specimens than any other collection in the state. Of the five herbaria in the state, it is the second largest. The Missouri Botanical Garden, with more than three million specimens, is the largest.

MU's herbarium looks more like a massive records room, however, than an important research resource. One hundred forty-four herbarium cases averaging 1,500 specimens each store the plants in row after row of airtight steel filing cabinets.

Don't be fooled by the sterile appearance. It's the source of hefty scientific research. "It's a depository of biodiversity information that's not available elsewhere," says Curator Robin Kennedy. "It's a research museum. Instead of bones and ivory, we have dried plants."

Two national leaders in the crucial fields of corn genomics and soybean research, Ed Coe, professor of agronomy,

and Joe Polacco, professor of biochemistry, use samples stored at the herbarium in their attempt to find better methods to produce higher corn and soybean yields, reduce fertilizer requirements and improve food quality.

Nonscientist visitors are most interested in the herbarium's historic collections, Kennedy says. The oldest specimens, from England, date from the

1830s, and the oldest Missouri specimens were collected in 1852. There are plants from all over the United States—including plants collected in New Mexico at the site of the first nuclear bomb detonation in 1945—Mexico, and Central and South America.

With all those plants around, bugs are understandably a big concern. Most feared is the "herbarium beetle," named for its penchant for the stored, dried plants. Precaution is the name of the game. The first line of defense is the deep freezer. Herbarium staff members place every new sample in a freezer set at 18 degrees below zero to kill any unseen beetle larvae. The second line of defense is a series of pheromone traps set in each cabinet. The pheromone, which replicates the chemical signal of the female beetle, lures the male beetle to the trap's sticky paper.

Although bug-chasing and curatorial duties continue, the museum doesn't charge for plant identification as other institutions do. "A herbarium, like a library of books, is not particularly cost effective," Kennedy says, "but both are vital academic research resources."

HATCH FURNITURE

To an antique collector, the furniture in Associate Dean Paul Vaughn's office in the Agriculture Building has intrinsic value:

The golden-colored oak desk and boot chair, or

com-mode, probably date from the 1850s, and they're in excellent condition. The furni-

ture's real value—and the reason the Smithsonian Institution once borrowed the pieces for display—lies in their provenance. The furniture once belonged to Missouri Rep. William Henry Hatch (1833-1896), the "father of agricultural research."

As congressional representative from Missouri from 1879 to 1895 and chair of the Committee on Agriculture for five years, Hatch introduced legislation that forever changed the agriculture industry. His Hatch Act of 1887 authorized the use of federal funds for the creation of a network of agricultural experiment stations at each land-grant university and annual grants to each state for agricultural research. Hatch saw this effort as an opportunity to make the U.S. agriculture industry, through research, the most effective and efficient producer of food and fiber in the world.

The General Services Administration reports that the Hatch Act will provide an estimated \$239.4 million for agricultural research for fiscal year 2001, with grants ranging from \$611,000 to \$2.7 million. At MU, the funds are used for a variety of projects, including research on new wheat and soybean varieties to help Missouri producers maintain a competitive position.

RAMBLIN' VAN

When William Least Heat-Moon chronicled his American cross-country journey in the 1982 *New York Times* best seller *Blue Highways*, it began and ended in a 1975 Ford Econoline van. Heat-Moon (also known as former MU English and journalism professor Bill Trogdon, AB '61, MA '62, PhD '73, BJ '78) christened the auto "Ghost Dancing," the name the Sioux give to the moon of midsummer nights.

In the company of other American

This commode, or boot chair, was once the property of Missouri Rep. William Henry Hatch, the "father of agricultural research."





Watch your back in the Museum of Anthropology, which holds one of the largest and most comprehensive collections of archery-related items in the world. It contains more than 5,000 pieces, including this Kiowa quiver from the 19th century.

travel classics such as Jack Kerouac's *On the Road* and John Steinbeck's *Travels with Charley*, the book recounts his tour of the United States' back roads—marked with the color blue on old highway maps—and small, forgotten towns. The customized army-green van provided lodging, office space and transportation during the three-month, 13,000-mile automotive trek. With a compass mounted on the dashboard and a yellowed U.S. map affixed inside the door, Heat-Moon motored through 38 states.

The van's odometer now stands at 79,943, and it has been awarded a comfortable retirement at the Museum Support Center's climate-controlled warehouse.

CUPID'S COLLECTION

Bowyers take aim toward the Museum of Anthropology: Inside, the museum holds one of the largest and most comprehensive collections of archery and archery-related items in the world. The collection comprises more than 5,000 pieces, spanning the world and archery's history in sport, combat and hunting.

"When archers come and see the collection, they're like kids in a candy store," says Mary French, associate curator of the Museum of Anthropology. "They're amazed at how comprehensive the collection is."

The collection holds items from various cultures of Africa, Asia, the Americas, Indonesia and the South Pacific. From Kenya, there's a Masai wood quiver with a rawhide cap and leather bands. From India, a set of 18th-century Kashmir arrows. From Asia, thumb rings of bronze, agate and jade. From North

America, a Cheyenne bow case and quiver made of mountain lion hide, glass beads and felt. From archery's modern era, Harry Drake's unlimited footbow, which shot an arrow more than 2,000 yards.

There's more than bows and arrows, however. The collection also includes Japanese scrolls inscribed with tales of ancient archers, a centuries-old Chinese how-to manual and a Persian jewel-encrusted archer's necklace.

The collection was donated to the University by Bert Grayson of Clatskanie, Ore. Grayson, a retired radiologist and an accomplished bowyer, has collected archery-related items for more than 70 years.

HOMETOWN NEWS

"Experienced newspaper people get a laugh from this drawing," says Dean Mills, journalism dean, of the charcoal sketch hanging in his office. "The chains aren't hooked up to the press, and if they were, if it were running, the boy would have been sucked into the machinery."

But the artist, illustrator Norman Rockwell, wasn't trying to depict realistic events. Instead, he wanted to show life at a small-town newspaper. Rockwell

traveled to Paris, Mo., and for several days observed the operation of the *Monroe County Appeal*. He created two sketches, the figures of which were based on real people at the paper. One sketch ended up at the School of Journalism, the other, called *Hometown News*, appeared in the April 11, 1942, issue of the *Saturday Evening Post*.

It's fitting that the J-School holds one of the sketches, Mills says, because of its historic ties to Missouri's hometown newspapers. "The Missouri Press Association, in conjunction with Walter Williams, a country publisher, was responsible for founding the School of Journalism. Small-town newspapers have always been important to the school." Mills says, "Once again, as in our early years, we hope to attract students with an interest in working on smaller dailies and weekly newspapers." ❁

Famed illustrator Norman Rockwell visited a small-town newspaper in Paris, Mo., for this drawing and another one that appeared in the April 11, 1942, issue of the Saturday Evening Post. This sketch now hangs in Dean Mills' office in the School of Journalism.

