

Retropolis

Christopher Columbus and the potato that changed the world

By [Steve Hendrix](#)

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It was a small round object sent around the planet, and it changed the course of human history.

Call it “Spudnik.” It was a potato.

On Columbus Day, the country commemorates the grand global changes — discoveries and destruction alike — that unfolded after Christopher Columbus linked the New World and the Old. But some scholars take a more granular view of what Columbus wrought. They look at the very seeds, seedlings and tubers that began crisscrossing the oceans in what they call the “Columbian Exchange.”

The potatoes, tomatoes, corn, peppers, cassava and other plants native to the Americas did more than enliven the cook pots of Europe, Africa and Asia. They transformed cultures, reshuffled politics and spawned new economic systems that then, in a globalizing feedback loop, took root back in the New World, as well.

It was a grand shuffling of organisms with results both great and disastrous: Malaria-fighting quinine from the South American cinchona tree aided European colonization throughout the tropics; the ballast dumped in Virginia by ships picking up tobacco introduced earthworms to the Mid-Atlantic. Diseases common in the Old World quickly devastated the indigenous populations in the New.

“What happened after Columbus,” writes science journalist Charles Mann in “[1493](#),” his book on the topic, “was nothing less than the forming of a single new world from the collision of two old worlds — three, if one counts Africa as separate from Eurasia.”

The potato alone gets credit for population booms in parts of northern Europe that paved the way for urbanization and, in turn, fueled the Industrial Revolution. Tobacco had such value it was used as currency in some places. Some American foods became staples abroad, from the tomato in Italy and cassava in Africa to the peppers that became the paprika of Hungary and the curries of India.

“There really was no spicy food in the world before the Columbian Exchange,” said Nancy Qian, an economics professor at Northwestern University who has studied how the back-and-forth flow of new foods, animals and germs reshaped the world.

Researchers don’t know what use indigenous Americans made of the capsicum peppers that originated in Bolivia and Brazil. But as they spread around the globe, the zesty pods that are the ancestor of modern

bell, cayenne and jalapeño peppers allowed cooks to conceal the tastes of foods that were still edible but going a bit off. Soon peppers would form the base of dishes around the warmer latitudes, from Vietnamese pho to Mexican salsa.

By far the most consequential transfer of organisms, Qian said, was the introduction of unknown pathogens into the defenseless populations of the Americas. In the first century-and-a-half after Columbus, smallpox, measles, whooping cough, typhus and other infectious diseases killed up to 80 percent of native people, according to demographer Noble David Cook. And when Europeans introduced sugar, cotton and other plantations to the Americas, they enslaved more than 12 million Africans to work them.

On the other side of the Atlantic, fewer cataclysmic shifts occurred when new species arrived. None had more impact than the potato, Qian said.

Before Columbus landed on Hispaniola, the European diet was a bland affair. In many northern climes, crops were largely limited to turnips, wheat, buckwheat and barley. Even so, when potatoes began arriving from America, it took a while for locals to realize that the strange lumps were, comparatively speaking, little nutritional grenades loaded with complex carbohydrates, amino acids and vitamins.

“When [Sir Walter] Raleigh brought potatoes to the Elizabethan court, they tried to smoke the leaves,” Qian said.

Eventually, starting with a group of monks on Spain’s Canary Islands in the 1600s, Europeans figured out how to cultivate potatoes, which form a nutritionally complete — albeit monotonous — diet when combined with milk to provide vitamins A and D. The effects were dramatic, boosting populations in Ireland, Scandinavia, Ukraine and other cold-weather regions by up to 30 percent, according to Qian’s research. The need to hunt declined and, as more land became productive, so did conflicts over land.

Frederick the Great ordered Prussian farmers to grow them, and the potato moved to the center of European cultures from Gibraltar to Kiev. “Let the sky rain potatoes,” Shakespeare wrote in “The Merry Wives of Windsor.” Their portability made them ideal to transport into the growing cities, feeding the swelling population that would be needed for a factory labor force.

“It’s hard to imagine a food having a greater impact than the potato,” Qian said.

Cassava, which remains the foundation of many African diets, had a similar nutritional impact as it spread from the Americas. Sweet potatoes, too, proved hardy in flood-prone fields. In China, some scholars credit the sweet potato with reducing the frequent uprisings against emperors, whom peasants tended to blame when floods destroyed their rice crops.

Some of the most notable additions to global cuisine are nutritionally neutral: chocolate (made from cacao beans); vanilla (which was first processed to improve the flavor of chocolate); and the tomato, a native of the Andes that had been transported to Mexico. There, according to Mann, “native plant breeders radically transformed the fruits, making them bigger, redder, and, most important, more edible.” The result would transform the cuisine of Italy and bestow upon the world pizza, ketchup and the Bloody Mary.

“We don’t need them to survive,” Qian said. “But I don’t want to imagine a world without tomatoes and chocolate.”

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Steve Hendrix came to The Washington Post almost 20 years ago from the world of magazine freelancing and has written for just about every section of the paper: Travel, Style, the Magazine, Book World, Foreign, National and, most recently, the Metro section’s Enterprise team. [Follow](#)

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