

# Freakouts of the Past

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For three strange weeks 200 years ago this past summer, the countryside of France was gripped by an inexplicable terror.

Rumors swept through towns and villages that bandits were about to seize the year's grain harvest. Peasants, weeping and shouting, took to the woods with pitchforks and muskets. Others crisscrossed the countryside in a blind panic, looting and burning chateaux and so terrifying the French aristocracy that they took steps to abolish what was left of the ancient regime, France's pre-revolution social order.

La Grande Peur of 1789 is considered a pivotal event in the history of the French Revolution. But what caused it?

According to a study by University of Maryland historian Mary Kilborne Matossian, the mystery of La Grande Peur can be explained by the rye bread that constituted the bulk of the diet of French peasants of the period. Drawing on historical records, Matossian argues that the French countryside was in the grip of a massive outbreak of food poisoning brought on by a fungus that grows on rye grain and produces a natural form of hallucinogen LSD.

## Reinterpretation of history

Matossian's arguments appear in her recently published book "Poisons of the Past: Molds, Epidemics, and History," a sweeping reinterpretation of European and American history in light of what people ate.

In everything from the Black Plague of the 14th century, to the witch trials of Salem, Mass., the religious revivals of the 18th century and the population explosion of the early industrial. Matossian maintains that serious outbreaks of microbiological contamination of the food supply played a large role in shaping social behavior and population patterns.

Matossian's evidence is not proof. It is based on correlations, which are notorious for their potential to mislead.

"I have written this book with a keen sense of limitation," she conceded.

But William McNeill, professor of history at the University of Chicago, said that does not diminish the importance of the scholarship.

## 'A very significant point'

"some of her conclusions may be exaggerated he said. "It is almost always the case that when you find something new and write about it, the result is a rather lopsided picture. But she is on to a very significant point. This is something historians simply haven't thought of . . . .

"This is still a very ingenious idea and one that has been almost totally neglected. This is an important book."

Matossian's focus is on a fungus known as ergot, a highly toxic mold that under certain climatic conditions--cold winters and wet, warm summers, in particular--can grow and infect rye. Ergot is the fungus from which LSD originally was extracted. When consumed, even in minute quantities in flour made from infected rye, ergot can cause an astonishing range of symptoms--including gangrene, fertility suppression, loss of motor control, severe hallucinations and delusions, and even death.

Ergot poisoning was a risk in pre-modern Europe because, until the potato became the dietary staple of the lower classes in the late 18th and early 19th centuries, peasants north of the Alps and Pyrenees and those in Russia were heavily dependent on rye, a hardy crop that can grow in extreme climates and poor soils.

Matossian's approach is to try to account for out-breaks of bizarre behavior in a given area by looking at local food consumption patterns and climatic conditions during the previous growing season.

In 1789, for example, the year of La Grande Peur, "France had not seen weather conditions so favorable to the growth of ergot on rye . . . . since 1697, when reasonably complete records were first kept," she writes.

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