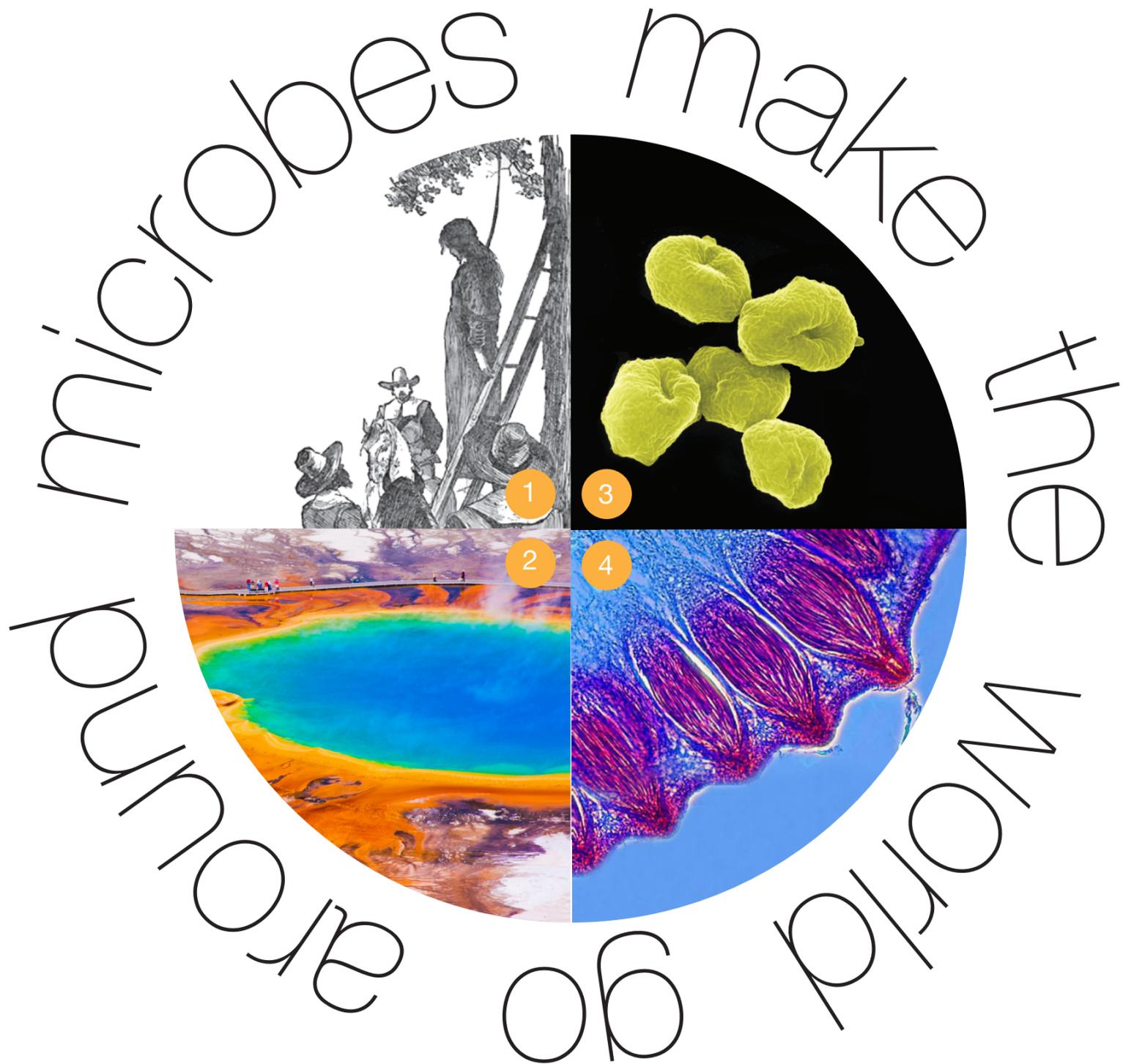


1 / 4

The Salem Witch Trials (1) erupted after accusations were made by eight young women who claimed to be suffering from strange symptoms characterized by violent muscle spasms, vomiting, delusions, hallucinations, crawling sensations on the skin, and a host of other symptoms. Scholars now believe that such symptoms were a result of ergot poisoning, caused by the fungus *Claviceps purpurea* (4), which affects rye, wheat and other cereal grasses. At that time, rye was the staple grain in Salem. The rye crop consumed in the winter of 1691 to 1692—when the first symptoms were reported—could easily have been contaminated by large quantities of ergot. These, and other clues, build a substantial case of ergot poisoning that is hard to ignore.

2 / 3

The Grand Prismatic Spring (2), located in the Midway Geyser Basin, is the largest hot spring in Yellowstone National Park and the third largest in the world. Several pigmented bacteria grow in the microbial mats at different ranges of temperature. In these thermal gradients, or distinct zones of microbial communities adapted to a specific temperature, microbes produce bright colors such as green and red. Depending on the amount of sunlight, the temperature of the water changes throughout the year, and may favor one kind of microbe over another. The microorganisms present at the Grand Prismatic Spring are mostly extreme thermophilic bacteria and *archaea* (3)



PMB 22

FALL 2013

Tu/Th 10-11am

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N. Louise Glass
Professor
Associate Chair
Plant & Microbial Biology

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