## **MOLLY CLIFF HILTS**

Beyond the Empire, 2008

Oil, powdered pigment, wax, graphite, lithographic ink over traditional gesso ground on panels, diptych, 48 x 78 in

COURTESY THE ARTIST AND SESNON ART GALLERY

## **WES JACKSON**

## The Great Awakening

Where We Are Headed with Agricultural Management ot long ago our ancestors had a *Great Awakening*. It began small, but gained in size in the twentieth century. What aroused the people on Earth Island? Global warming was the major concern then, and land use was the number two source of greenhouse gases, behind fossil fuel power plants and ahead of all transportation.

Thirty million acres a year ecosphere-wide were experiencing land degradation. Our food source was under siege. The world population, still growing in 2014, had tripled in the previous eighty years.

Our ancestors had a hard time getting a grip, primarily for two reasons: they were addicted to fossil fuels, and their ancestors were children of the Enlightenment, which included in its ideas "enlarging the bounds of human empire to the effecting of all things possible." A reductive approach to the world. Many of our ancestors' motivations were good. Like us, they wanted a world without hunger. There was also a certain industrial heroism among them. Their dominant slogan was telling: "We must feed the world!"—often uttered in a puffed-up way.

Thankfully, a few were more modestly saying, "Sure, the world must be fed, but then what if we have failed to stop greenhouse gas accumulation, soil erosion, and depletion of fresh water?" These were the days of The Great Awakening, when only a few appreciated that soil is more important than oil, and is as much a nonrenewable resource. Millennium Ecosystem Assessment scientists concluded that agriculture was the number one threat to Earth Island's wild biodiversity. It was time to confront the problem of agriculture instead of only addressing problems in agriculture.

An increasing number of agricultural scientists and ecologists had accurately diagnosed the negative consequences of grain production. Noting that the virtues of natural systems mostly featured perennials and more-orless-constant ground cover, they called for *ecological intensification*. That is about where the agreement ended, for there were already two camps of agricultural scientists ready to address the problem.

The dominant camp was like most early twenty-first-century scientists. They were intellectual descendants of Francis Bacon. The generation before them—indeed some of their major professors—were the agriculturists