



Encased algae create kaleidoscope of color

Under a microscope, carefully arranged diatoms form a dazzling display.

Diatoms are single-celled algae (in the stramenopile supergroup; see Page 22) that live in sunny, wet habitats. The organisms come in many shapes and sport natural pigments of green, gold and brown. To complete their look, diatoms extract silica, a mineral used in glass, from the water and erect intricate outer skeletons. The hard shells are riddled with holes that allow nutrients in and waste out.

Artist Klaus Kemp from East Brent, England, arranges the tiny organisms into ornate microscopic patterns. The design above, which is about half a millimeter across, incor-

porates freshwater, marine and fossilized diatoms.

Like plants, diatoms exhale oxygen. The algae exist in such great numbers in the world's oceans that they produce at least 20 percent of the oxygen on Earth.

But some diatoms are a health hazard to humans and marine animals, including birds and sea lions. *Pseudo-nitzschia* diatoms produce domoic acid, a toxic substance that accumulates in fish and shellfish. People who eat contaminated seafood can suffer vomiting, seizures and short-term memory loss. In recent months toxic diatoms have churned out high concentrations of domoic acid in coastal waters from central California to Alaska. — Sarah Schwartz

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