

Moving Pictures

When documentary still photographers Dorothea Lange, Walker Evans, and Ben Shahn sent negatives from distant locations to Washington, they relied on the leisurely pace of

the U.S. Mail. Employed by the government's Farm Security Administration and the Office of War Information, they supplied some of the 160,000-plus photographs the agencies commissioned between 1935 and 1943.

Now, with a marriage of computer modeling and historical curiosity, the full catalog of well-known Depression-era and wartime photos will become accessible in innovative ways. Yale University doctoral students Lauren Tilton (American studies) and Taylor Arnold (statistics) are working with Professor Laura Wexler and digital specialists to build a research tool and website called the Photogrammar Project that can search and map the FSA-OWI photos spatially, temporally, and thematically, and overlay them with historical census data.

The Yale team, which won a \$50,000, two-year digital humanities start-up grant from the National Endowment for the Humanities, sees possibilities for visualizing the intersecting journeys of FSA-OWI photographers, for example, or plotting the percentage of military images collected by month and location. The Library of Congress website, where the images are now archived, is a static online repository, Wexler explains. Photogrammar's interactive platform will allow researchers to support or challenge accepted ideas about the FSA-OWI initiative and the period of American history it recorded by illuminating patterns undetectable when looking through the photos individually. The team believes this new methodology can be applied to other large archives as well. The website will launch this fall.

—CHLOE TAFT



Digging Into Dickens

How a novelist tells a story affects the way readers perceive what's going on, says English professor Catherine Robson of New York University. Perhaps that's not an earthshaking observation, but consider Charles Dickens's *Bleak House*, a novel of unconventional form that Robson says changes our very conception of human conception.

A character, the illegitimate Esther, relates the story of *Bleak House* as a recounting of her past, with her storytelling alternating with a third-person narration by an unidentified speaker. For Robson, how Dickens presents the relationships between the narrator and the character is a way to understand the central mystery of the novel's plot: Esther's genesis.

One passage finds Esther outside the closed door of two newlyweds, feeling excluded from "the murmur of their young voices" within. "That splitting of narration," Robson says, "between an unlocated present-tense speaker and a single individual bears a relation, I'll argue, to the simultaneous connect and disconnect between the love-making of Esther's unmarried parents and the existence of their child.

"Nineteenth-century fiction's most carefully elaborated psychologies are grounded upon hostility toward the sexual act that both created them and cared nothing for their individuality," Robson says.

This year marks the 200th anniversary of Dickens's birth. Robson will elaborate her thesis at the annual Dickens Universe, a week-long immersion in the author's work to be held this summer at the University of California–Santa Cruz.

—TOM BENTLEY

Grape Expectations

Although fruit quality, harvest time, and storage of the juice are important in winemaking, the difference between a generic red and a truly excellent wine lies in the spontaneous fermentation by naturally occurring yeasts. But managing yeast microorganisms is fraught with unknowns because some wild ones can harm fermentation.

In an effort to help winemakers hone their craft, researchers in Germany have developed a biosensor that can discriminate between the wild yeasts that lead to spoilage and those that release chemicals that create the array of flavors and aromas characteristic of an excellent wine. The prototype device, about the size of a cell phone, contains 10 Plexiglas tubes, each lined with a protein that recognizes a specific yeast strain. The winemaker fills each small tube with juice, and a biochemical reaction causes a color change if a particular yeast strain is present. The team, led by Mark Bücking of the Fraunhofer Institute in Germany, has already identified 10 strains of wild yeast that are predominant during spontaneous fermentation of wine and is investigating the effect each has on flavor and aroma.

"There are a lot of techniques available to evaluate yeast in the laboratory, but the time you need to send the samples to the lab and to make the analysis can be critical when the fermentation is having problems," says Fraunhofer microbiologist Cecilia Díaz. With this one-use device, which is expected to cost no more than \$65, wine-makers can test within minutes which wild yeasts are present before fermentation has even begun. By monitoring the process more closely, wine-makers can reduce the risks of making their top wines in larger batches.

—VANESSA SCHIPANI



PAINTING AIRPLANE WING, NAVAL BASE, CORPUS CHRISTI, TEXAS, 1942. HOWARD HOLLEM (TOP) AND VERMONT STATE FAIR, 1941. JACK DELANO (BOTTOM); FARM SECURITY ADMINISTRATION/OFFICE OF WAR INFORMATION/LIBRARY OF CONGRESS (2)

LIBRARY OF CONGRESS (TOP); DANIEL SPIESS (BOTTOM)