



*Food for the Future*

# THOUGHT FOR FOOD

Have food on the brain? So does Mizzou. Here, researchers are thinking innovatively about the same food issues that perplex you daily. They're trying to curb childhood obesity, devise ways to make junk food healthy, figure out how agriculture can be more sustainable and prevent those eggs in your fridge from being recalled. Mizzou certainly has its strengths when it comes to food. For starters, how many colleges have their own ice cream? But the Tiger Stripe blend of French vanilla and dark Dutch chocolate is only the tip of the ice cream float.

Food is just one of the five areas in Mizzou Advantage — a campuswide plan to solve big problems. Each area is a constellation of top faculty and facilities that set Mizzou apart from other universities. In addition to food, the areas relate to energy, health, media and technology. By focusing on these areas, the university hopes to elevate its stature and enhance its ability to win grants, attract venture capital, and boost the Missouri and U.S. economies.


Food is on the front burner in this issue of MIZZOU, and you'll find more goodies online at [mizzoumagazine.com](http://mizzoumagazine.com) and [missouri.edu/mizzou-advantage](http://missouri.edu/mizzou-advantage).



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A man in a dark suit and tie is smiling as he carves a large, golden-brown roasted turkey on a white platter. He is standing behind a dining table covered with a green tablecloth. A woman with her hair in a bun, wearing a light blue patterned top, is seated at the table, looking at the turkey. The table is set with plates, glasses, salt and pepper shakers, and a bowl of green peas. In the background, there are window blinds. Three speech bubbles contain text.

I've been cooking for days, and now Stewart waltzes in like a conquering hero to carve the fowl. I think I stuffed the wrong bird.

First comes football on TV and now this great Thanksgiving dinner ... Why does Margaret look so tired??

Thanksgiving is great? Sure, as long as you're not the turkey!

## Hungry for knowledge

A lot of well-deserved ink gets spilled about scientific discoveries and technical innovations that faculty members conjure on campus. Alex Barker, who directs MU's Museum of Art and Archaeology, is a big fan of such revelations. But, as an archaeologist who sifts through ancient garbage heaps as part of his research, he also knows that seekers of new knowledge need to look in the right places. At first glance, Mizzou Advantage priorities such as Transformational Technology, Sustainable Energy and Food for the Future look mainly like the realms of high-tech lab scientists working out big problems. But Barker and others in the humanities and social sciences are part and parcel of the work. "All the Mizzou Advantages have social aspects," Barker says. "For instance, if you are talking about fuel use, it's not simply a matter of the cost of developing petrochemicals or new sources of fuel. It's how acceptable are they? How do they change our lifestyle? What are the social costs? If we can get our arms around those kinds of issues, it'll be easier to tackle the daily problems we face, whether fuel, medicine or food."

Read on to glimpse the expertise three humanities researchers can offer on matters of food. — Dale Smith

My teacher says Thanksgiving as we know it is a myth. Some parents have their knickers in a twist about it.

I'm just wishing for a leg with some crispy skin.

Historical images of Thanksgiving usually look picturesque, but researcher LuAnne Roth says these idyllic media representations of Turkey Day are far from reality.

## Happy Turkey Day?

**FOLKLORE AND FILM STUDIES** instructor LuAnne Roth talks turkey about Thanksgiving. Her research on foodways — traditions and customs involving food — looks at how film and other media represent Thanksgiving and what the meal scenes might say about American culture.

As a folklorist, it would have been standard procedure for her to observe families celebrating Thanksgiving firsthand. But it wasn't an option to miss Thanksgiving with her own family, she says. "I love Thanksgiving. I love the emphasis on family togetherness and harvest and the notion, however erroneous, that these traditional foods are binding me to previous generations."

Roth says the humble-beginnings story told to children about pilgrims and Indians eating a turkey dinner after the harvest is fictional. It grew up partly in magazines such as *Ladies' Home Journal* starting in the 1800s, as well as in the public school systems. With the influx of immigrants, she says, Americans saw the myth of the early nation as a way to assimilate the newcomers.

The mythical story took hold, complete with a comfort-food menu that Roth both studies and lives out in her own way. "I love

the food itself — from the chilled relish trays to the green bean casserole smothered in Campbell's mushroom soup mix and French's French Fried Onions, the sweet potato casserole topped with toasted Jet-Puffed marshmallows, the fresh bread rolls with melted butter, the mashed potato volcanoes spewing gravy lava and, of course, a crispy outer slice of the roast turkey, a nibble of which used to be worth the risk of having my hand slapped." But tradition can be tricky, Roth says. Family members often believe that their Thanksgiving menus and other practices are stable over time, but in reality they evolve quickly, generation by generation.

Unlike the happy connotations that Thanksgiving holds for Roth in her personal life, she found many "Thanksgiving moments" in the media that use the holiday to raise issues including animal rights, family and gender politics, and the devastating impact of European colonization on American Indians. For instance, the Thanksgiving meal scene in the 1995 film *Home for the Holidays* includes the following dialogue, edited for a family audience, that deals with some of these issues:

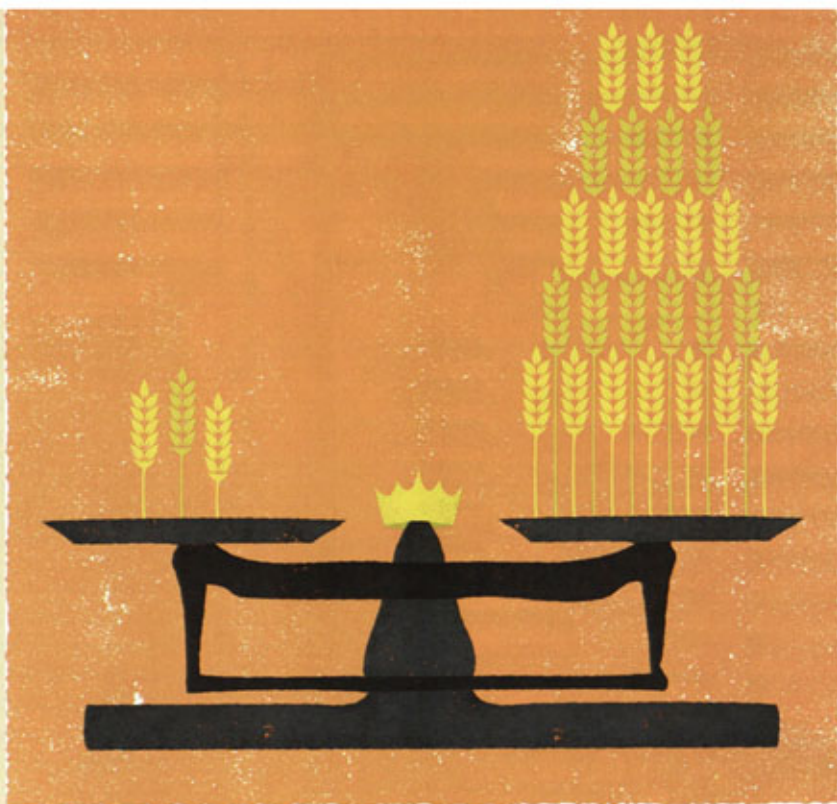
Mr. Larson (Charles Durning): Dear Lord, we realize that lately everything's changing too fast. And all sorts of things are always the same — even things we hated, like shoveling the turkey and stuffing the snow and going through the same crap year in and year out ...

Mrs. Larson (Anne Bancroft), breaking in: The food is getting cold.

Mr. Larson: As I was saying, dear Lord, before my wife interrupted me. Give me those old-fashioned traditions like Thanksgiving, which really mean something to us, even though we couldn't tell you what it is — are starting to stop. And thousand-year-old trees are falling over dead, and they shouldn't. That's all from this end.

Daughter (Holly Hunter): Amen  
Granddaughter (Emily Ann Lloyd):  
A-woman

Son (Robert Downy Jr.): That was absurd. Let's eat dead bird. ■■



## Revolutionary old diet

**AS THE SAYING GOES**, food is fuel. But the saying is not just for individuals, says Alex Barker, who directs MU's Museum of Art and Archaeology. Food also can be the figurative caloric content that powers social change, says Barker, an archaeologist who has studied preindustrial societies in North America. He draws an interesting picture of food's influence:

Before European settlement, the Creek tribe of what is now the southwestern United States had what we might call a social safety net. "Everybody in the tribe pays into a granary called the King's Corn, and when somebody doesn't have enough, the chief allows them to take what they need," Barker says. "The chief has his house built on top of that granary, so the seat of power literally is the excess food."

Although this setup with taxes and transfer payments sounds solid, it's anything but. It begins to unravel as common folk, knowing the King's Corn will save them in times of need, opt to grow less food and spend more time on other important tasks. Problem is, the chief spends that food for various other purposes, such as feeding

his own family. Plus, other tribal nobles are potential rivals, so the chief sends them food to keep them happy, something like a tax break for the rich.

It turns out that the chief is working harder and harder to keep everybody happy by doling out a surplus that gets smaller as people produce less food. Sooner or later, the situation comes to a head. "So, let's say you are a commoner. You've been making enough food to pay taxes, and when times are hard and you need some help, there's not enough to go around. You're going to be real unhappy." Same goes for the tribal nobles, who can no longer live off the surplus and who can challenge for the role of chief. It's a recipe for revolution, or at least a change in chiefs. "This balance that chiefs have to achieve is between satisfying commoners who don't want to be exploited and satisfying nobles who demand a certain level of exploitation to support their lifestyle. Although the chief is the most powerful person in the society, the power depends on everyone being more or less satisfied. In many ancient societies, that determination is based on food." ■■

## When a lake is not a lake

**KAREN PIPER** is compelled to write about an elemental topic: water.

She was reared near the long-dry Owens Lake in the California desert. "Water was on everybody's mind. Where I grew up, there was a little civil war over water," says the professor of English at MU. Hostilities broke out before Piper's time, in 1913 when the Los Angeles Department of Water and Power built an aqueduct that diverted water from the Owens River to supply Los Angeles. The river that had flowed into Owens Lake dwindled, and the once-vital lake soon became a 110-square-mile patch of arid dust containing arsenic, cadmium, aluminum sulfur and

nickel. Piper says spending 18 years there breathing the dust left her with respiratory problems. Her book *Left in the Dust* (Palgrave Macmillan, 2006) tells the story of how diverting the water hurt the poor rural people in the Owens River Valley in order to foster growth in Los Angeles.

"As I was writing that book, I realized that there is a global water crisis," Piper says. While working on her forthcoming book on this topic, she traveled to South Africa, India, Iraq, Turkey and Egypt investigating how privatizing water distribution affects poor people. She says that governments in developing countries privatize water

distribution to get needed loans from the International Monetary Fund and World Bank. "The IMF and World Bank are following the idea that pure free markets will grow fastest. They say it's harder on the poor at first, but it will get better in the long term. That hasn't worked out."

Problems have arisen when corporations win contracts to distribute water to poor areas, Piper says. "In Johannesburg, South Africa, Suez [Environmental] won the contract to run the water supply. The idea was to extend water to poor areas, but the company hiked water prices, and communities couldn't afford it. People started going to streams to drink and would get cholera. After major protests over this, the contract was terminated."

Similar scenarios play out across the globe, she says.

At first glance, the water crisis might appear to stem from overpopulation. But Piper says it's more about migration. The construction of dams to create large reservoirs that supply agriculture and cities has forced as many as 80 million worldwide to leave their homes. Many of the migrants settle in dry shantytowns on the fringes of large cities.

In the Himalayas, Piper met one man who challenged this process. Sunderlal Bahuguna, 83, spent his life defending water rights in his region. "He was such a kind and gentle man, and he lost the struggle to keep a dam from being built there. He lives so simply next to the reservoir now." Back when the water first started flowing into the area, he floated around his town in a rowboat as the place flooded. "He spends his last days now watching the reservoir — all so Suez can supply water to the suburbs of New Delhi." ■



Illustrations by Drew Roper

### MIZZOU ADVANTAGE FOOD FOR THE FUTURE

#### Meaty fake chicken

The June 14, 2010, issue of *Time* magazine highlighted the work of **Fu-Hung Hsieh**, professor of biological engineering and food science, who transforms soy protein powder into a heart-healthy chicken substitute. After more than 10 years of research, Hsieh has created a product with the appearance and texture of real chicken. More: [cafnr.missouri.edu/news/stories2010/chewy-like-chicken.php](http://cafnr.missouri.edu/news/stories2010/chewy-like-chicken.php)

