

NEW LAMBS

ART, HISTORY, BIOLOGY

For Melissa Johnson '77, teaching weaving is teaching history. In the late fall of 2022, a few very engaged weavers asked Johnson if they could really start at the beginning of the weaving process—the very beginning—by breeding two ewes, seeing them through their pregnancies, delivering the lambs, raising them and then onto shearing, carding, and spinning the new lambs' wool.

And so, that winter the small animal barn became an extension of the weaving studio and the history classrooms.

The days grew longer, Moon Unit and Kiwi grew heavy. In April, winter and spring at the same time, the ewes were observed as restless, and without appetite. One day, Kiwi began to labor. She delivered a stillborn lamb.

At this very moment, Brian Quarrier '05, who had provided the ram for this project, drove by and noticed Johnson's car. He saw Johnson and the students, the lifeless baby, the shock. And he knew that they had to see if there was another.

Johnson scrubbed up and, having never done it before, reached inside of the ewe and pulled out another lamb. And finally, a third.

For Augusta '25, a self-described city kid, these were many life-altering firsts at one time.

"It was the first time that I had seen anything be born, but it was also the first time that I had seen anything die," she said. "It was a really transformative experience."

The beauty of this project, said Noah Hoskins, a teacher in Putney's history department, is that it allows students to experience the history of the human species in the world.

"When we look at the 10,000-year history of humans, the experience of animal husbandry, of the domestication of animals, and of our reliance on products produced by other animals and harvested from other animals, we understand something about what it means to be human that can't be taught in a classroom," he said.

For Augusta, this program, and its gentle weaving of the animals and the classroom together, is so much bigger than the sum of its parts.

"Being on a farm and working with animals, it's life and death, it's day to day. And I think that this is what makes all of Putney's philosophy about education real."

STILLBORN LAMBS

BIOLOGY

The news of the two stillborn lambs traveled through the campus community. It reached Sofia Sigman '23, a senior at the time, in the middle of an anatomy independent study.

Sigman had designed this self-directed study because she is interested in medicine. The story of the lambs created another opportunity, one to hone her dissection skills. As a student, science teacher Dawn Zweig said that Sigman was always engaged with the dissection process, and always pushing herself to learn and improve.

In this case, she pushed herself one step farther. Beyond a straightforward dissection, Sigman learned how to conduct an autopsy.

"For this project," said Sigman, "I took it upon myself to figure out what the issue was with these lambs, whether this was a case of infection, disease, mismothering, etc."

Zweig, for her part, supported the academic change of course.

Zweig teaches a lot of dissection, and she doesn't love the industry that raises animals specifically for it. Not only are they raised to be killed, but they are preserved in chemicals that make their tissues no longer feel right. For Sigman, there was more benefit. In preparing for the autopsy, she had to plan a dissection that allowed her to use the guide she found. "This taught me a lot about how to prepare a dissection and how to best explore the autopsy guide through dissection," she said.

The upshot is not just that one senior prepared herself for medical school in a self-directed and hands-on way—the farm itself will feel the effects.

"By looking at the lambs from our farm and figuring out what had happened to them, I was looking at information that would be relevant to the farm in the future," said Sigman.

STORY BY
DARRY MADDEN

THE DAIRY OPERATION

ECONOMICS

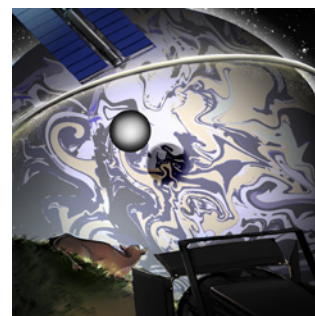
In order to teach the abstraction of economics, history teacher Kristin Dawley leans on the solid red reality of the dairy barn.

Every entry-level economics class will teach supply and demand. It is the bread and butter of the field. Dawley has noticed, however, that while teenagers can readily connect with what it means to be a consumer, most cannot connect with what it means to be a producer.

But Putney students—every last one—have a personal experience in the dairy industry, for though it is small, Putney's operation is,

nonetheless, a dairy farm subject to all (but one—labor) of the vicissitudes of the market.

Her lesson begins by looking at how technological solutions like selective breeding and robotic milking systems and specialized feeding plans for cows based on lactation cycles have shifted the supply of milk and how that, in turn, has impacted its price.



Of course, the advances in technology and the increase in supply have, for the most part, not translated into better prices for farmers. Pete Stickney comes in at this point in the lesson to talk about his lifetime of experience in the Vermont dairy industry, and how these technological changes affected it writ large, and right here at Putney, and the way that milk does not operate in a perfect free market and is subject to price volatility.

"It's great. Students process this information—supply, demand, what shifts them—and look at how it has all played out on our farm," said Dawley, "which is a little tiny microcosm of almost everything."

THE LAND

ENGLISH, SOCIAL SCIENCE, NATURAL SCIENCE

In order to learn genetics, students must first learn about the bedrock under Elm Lea Farm.

That is the very first thing Putney freshmen are asked to grapple with. They take soil samples. They ask, "How did this place come to look the way it does?" They make sense of the tectonic plates beneath their feet, the mountains and valleys carved by glaciers that surrounded them, and finally, up into the autumn day in which they find themselves to begin to see how an

agricultural economy might be born from these conditions.

Once the geological stage is set, the actors arrive: indigenous people, colonists, farmers.

There is the drama of history—the triumph, the catastrophe. Wolves, mountain lions, sheep. Farmsteads. Production and goods. Surplus. Commodities. A booming dairy industry.

It is then, with this sweeping scientific and historical background, that Putney freshmen enter the barn with fresh appreciation for the softly lowing cows and get a very hands-on education in genetics.

This involves not just understanding how genes work through the lens of the attributes of Putney's dairy herd, but also the analysis of data that farmer Pete Stickney has on his herd and their potential bulls. They do a mock breeding—choosing a sire based on the genetic traits they are hoping to create, from physicality to the components of her milk.

"The buy-in from students is so much stronger when the work feels authentic, relevant, and tangible," said science and Humans in the Natural World Teacher Abby Verney-Fink. ■

ILLUSTRATIONS BY
MAYA '25

completed as part of her junior year Studio Art class

