The second stage is to revive the home's aging exterior, ultimately turning the building into a boarding home for students and building a separate, smaller cabin for himself further back on the land. However, the eight-year construction project has come with its fair share of hiccups.

"The project hasn't quite worked out according to plan," Roth said, adding a massive leak that was trickling through the home's walls wasn't found until about a year and a half after he purchased the home. In fall 2014, Roth also contracted double pneumonia while working on plumbing under the house. At some point, too, a group of neighborhood pit bulls got loose and killed several of his chickens and sheep.

"It's been just a cascading chain of events," he said.

Roth stays positive despite the hardships. His aim is to bring sustainable methods of living and lessons he has learned in his struggles into the classroom.

"That's what I'm most proud of—taking what I learn here into the classroom and talking to students about how they can save money on their student loans by learning how to grow a garden, learning how to cook and talking about the failures here to let them know that things don't always work out," Roth said. "If you want to connect it to Birdwell, that's definitely what I'm most proud of. He would want the faculty to move beyond textbooks and theory and do things that are practical that the students will take with them in their lifetimes."

Roth hesitates to speculate on what the future holds, but he isn't giving up. He continues to renovate the interior of the house, many parts of which are nearly complete, and he will soon pick up speed on the exterior. He also just recently seeded his 50-foot by 50-foot garden.

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**Off-the-grid tips**

*By Dr. Jeffery Roth*

*SFA associate professor of geography*

I GROW UP in Texas hunting and fishing. I admired my "off-the-grid" great-grandpa and aspired to be like my outdoorsmen heroes. As an SFA student in the late 80s and early 90s, my adventures afield continued and expanded in Nacogdoches with like-minded people. We grew big gardens, brewed a lot of beer, had big potluck dinner parties and enjoyed a lot of time outside. I inherited generations of wisdom on self-sufficiency, farming and food that I get the privilege of sharing with students regularly. Here are a few of my favorites.

1) In East Texas, solar panels prove to be inefficient, but trees store the power of the sun, making modern, low-emission wood-burning stoves or fireplace inserts an alternative. I burn oak wood collected from dead trees on my farm, scraps from a local hardwood mill and, by permit, wood found in the Davy Crockett National Forest. I burn about six to eight pick-up truck loads of wood that would decompose and create biogenic emissions anyway. You can find many uses for the ashes on the Internet.

2) We live in Texas, so vegetables grow year-round. I recommend building fertile, organic soil by collecting bags of leaves thrown away curbside and composting them for the garden. I generally produce more vegetables than I can eat.

3) If you're thinking about what you might do next, order a Lehman's Hardware catalog or, better yet, take a vacation to Amish country. My great-grandpa took me to this amazing place in Kidron, Ohio, decades ago. You'll find an unbelievable collection of non-electric technology, equipment and books sure to inspire great projects.

4) In Kidron, I learned about "chicken tractors," so I built three that house my 12 birds. These lightweight, mobile chicken coops work great for backyard poultry production wherever local code permits. I have a flock of Dominique chickens ordered from the Murray McMurray hatchery, which also has a great catalog. The American Livestock Breeding Conservancy is a great organization with more information on poultry and other heritage livestock breeds.

5) To find the time to live more sustainably, consider turning off the cable and Internet after doing your research. I'm signing off to go outside to collect some eggs for breakfast and enjoy the sunset in Nacogdoches.