Earth, Fire, Art
When ceramics students engage in the ancient ritual of the anagama kiln, they chop wood, stoke a fire to extreme temperatures, and spend days enduring the outdoor elements in hopes of producing surprising pottery.

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Photography by John Dowling

Just two days before firing the ceramics program’s anagama kiln last semester, College of Visual and Performing Arts professor Errol Willett issued a simple request: “Pray for no rain.” SU’s rugged, wood-fired kiln, nestled on a hillside behind the Comstock Art Facility, was redesigned three years ago and is put through its paces once or twice each semester. Each time, it is a major event. A curiously simple structure, the kiln inspires dedication of epic proportions among ceramists. “It really is a labor of love,” says Steve Pilcher G’90, who teaches art at Jamesville-DeWitt High School and has participated in several anagama firings. “You can’t go into this half-heartedly.”

The anagama’s roots are firmly Korean, with the Japanese later improving the wood-firing process. The name itself roughly translates to “one hole” or “one entry point.” These kilns, capable of reaching temperatures of 2,500 degrees Fahrenheit, were widely employed 400 to 500 years ago, mainly because wood was the only available source of heat. Japanese potters used the simple, front-entry kilns to fire functional pieces—primarily storage vessels.

The Japanese eventually found the single-entry kilns impractical and began building naboragama kilns, which could be entered from the sides to make loading easier. As other firing methods evolved, wood kilns gradually lost their prominence. But potters remain fascinated with the anagama and naboragama, and there are now several hundred wood-fired kilns being used regularly in the United States.
Willett is not content to teach wood firing as an archaic nod to the past. He encourages students to incorporate it with contemporary techniques and break new ground. "I am concerned about what we do with the process and want to add something to it," the Department of Studio Arts professor says. "The students bring a lot to the experience because each has a different approach. They feed off one another."

Willett organizes the participants—primarily students in his Atmospheric Firing class and graduate ceramics majors—into groups of three or four. Crew chiefs are appointed to maintain a routine as participants take turns chopping wood, stoking the fire, and tending to the ash bed at the front of the kiln. For an entire weekend they continue in eight-hour shifts, burning two cords of wood in the process. "The physical effort involved is akin to keeping a small community going," says Willett. "The communal aspect of the anagama gives each firing a unique character."

The first crews mix wadding compound (a combination of clay and sawdust used to gently affix pieces on the shelves), load the kiln, and ready it for firing. They also cut wood to allow later crews more time to focus on stoking the fire and maintaining the temperature.

What may be most surprising about the anagama is not the process itself, but why it is still being done. There is nothing modern, technical, or commercially lucrative about this firing technique. Yet these factors clearly heighten Willett's passion for wood firing, and the challenges of the technique spark student interest. "It is a most unpredictable form of ceramics because of the randomness of the flame and the ash, and the degree to which you let these variables dominate the work," Willett says. "The finished work is always a collaboration between what the artist intended and what took place in the fire."

Anagama pottery is generally considered an acquired taste. Artists see the subtle hues created by the clay's contact with flame and ash from the mineral-laden wood as a stark contrast to what Americans typically perceive as attractive. Variations depend on the kind of wood burned, the temperatures reached, the clay used, and the atmosphere in the kiln. A finished piece can reveal much about the movement of the flames as the heat gently scars the clay. "Today, artists have many options for firing their work," Willett says. "We're doing this because we know of no other way to get these results. When we open the kiln, there is an enormous element of surprise."

Preparation  Clockwise, from top left: Nathan Schaal and Melissa Shearer make cone packs that measure the kiln's temperature; ceramics pieces await loading; Aaron Rathbun and Sarah Bonds stack firewood near the kiln; Shearer and instructor Jennifer Gandee arrange pottery inside the kiln; Kristina Silbajoris and Rathbun sort wood; Jeremy Randal, Shearer, and Jennifer Mikus pick pottery from the table to load the kiln.
There's also suspense because each stage of the process holds the potential for disaster. Shelves can collapse during loading; rain can render piles of wood useless. Inevitably, someone misses a shift. A December firing in Syracuse poses further challenges. As participants begin their kiln vigil, conditions are difficult. Willett's wish for "no rain" goes unheeded, slowing the loading and frustrating the early crews that start and maintain the fire. Four students spend eight drizzle-soaked hours coaxing the fire along. The entire first night's firing is spent drying the bricks and the air inside the kiln.

By 8 a.m., when the second crew arrives, the sight of thick smoke coming from the chimney offers reassurance. Examining the scene, Willett says the first eight hours had little effect on the pottery. The temperature is now above 800 degrees in the front, but only about 500 in the back—a long way from the desired destination of 2,500 degrees. "Our job today will be to get a nice hot coal bed going," Willett says.

Participants stoke the fire by feeding small pieces of wood through portholes on both sides of the kiln. They monitor the temperature by watching the heat's effect on a series of clay cones placed at key points within the kiln. "Generally, the more wood you burn, the more ash you get," Willett explains. "The more ash there is, the more glaze you get on the pieces. The trick is to get the kiln hot and keep it hot."

At 11 a.m. the rain resumes, and the crew scrambles to erect a makeshift shelter for the wood. By day's end, a methodical routine has been established. Three people—one at the front and two at the portholes—feed the flames, while others fetch or cut wood. Ceramics graduate student Mary Cloonan G'oo is a crew chief for two shifts, having participated in several previous anagama firings. When she is at the kiln, her concentration is infectious. "Good food and good music make it much more tolerable," she says.

Each crew documents the progress of its shift in the kiln log. For all of its informative qualities, the log is actually less about the kiln and more about the community that nurtures it through a firing. Song lyrics, diagrams, recipes, and some harmless venting often accompany brief comments about what was done during a shift and how the next crew should proceed. "A shift before yours can mess you up, or it can really set you up," Willett says. "You want to leave the kiln hotter than it was the shift before."

Willett, who has worked with some of the country's best wood-fired kilns, tries to keep his distance from the site when
he is not scheduled for a shift. "If the students know I'm there, they tend not to be as engaged," he says. "The point is to get them to read the kiln themselves and make decisions."

By 1 a.m. Sunday, conditions are still difficult—only a faint orange glow comes from the chimney, indicating the flames are several hours behind schedule. At 9:15 a.m., the morning crew reports that the "fire box looks a little cold." Bad news. But by 4 p.m., there's progress: Willett says the cones in the back of the kiln are melting on schedule.

On this last day, the weather cooperates, raising the crews' spirits, and enabling the temperature inside the kiln to be raised more steadily. By late afternoon the chimney displays a bright orange flame and the air is filled with black smoke. After eight hours of kiln duty, Louise Kearns, a student in the Atmospheric Firing class, is upbeat as the sun sets in the distance. She is happy to have contributed to what is now shaping up as a successful firing. "I was two people short this morning and I probably lost a few eyelashes, but things finally seem to be going pretty well," she says.

When the desired temperatures are reached, the stoking stops and the kiln's front holes are plugged with bricks. By 1 a.m. Monday, the last crew finishes and the kiln is left to cool for a couple days.

Once cooling is complete, the participants return to learn the fate of the kiln's contents. The way pieces are stacked has a considerable impact on how much ash glaze adheres to their surfaces. Several pieces in the back have fallen and broken because they weren't supported with wadding compound. "There are always a few casualties," Willett admits.

Ultimately, the many studio hours coupled with the 72 hours spent nurturing the flames of the anagama render some striking results. Willett pronounces this firing the most successful he has seen in terms of the glaze it produced, and the participants revel in their achievements. "It's kind of like Christmas," declares Andrea Marquis '00 as she collects several bowls and other pieces she fired in the kiln. The gentle green and burnt orange glazing from the ash further enhances what she considers some of the best pieces she has sculpted during her SU career. "I was happy with every piece I put in," she says. "You really can't beat those results."

As the kiln is carefully unloaded, members of the group share in one another's accomplishments. "If somebody ends up with a beautiful vessel, everyone appreciates it," Willett says. "Each person has contributed to that piece. That's what makes a firing a success."

Completion

Clockwise, from above right: Sarah Panzarella and Jennifer Gandee remove finished pieces from the kiln; Andrea Marquis sorts through pottery; two sculpture works await unloading; Erroll Willett and Gandee peek inside the kiln; Steve Pilcher examines how the firing affected a piece of pottery.