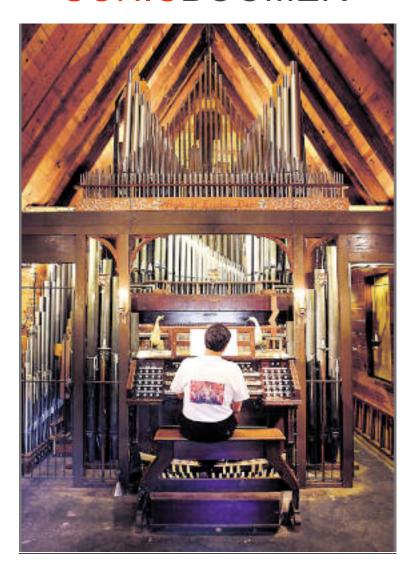
The mighty and majestic pipe organ at Boomeria, deep in the hills of Boony Doon, is an inspiration for fans of the Santa Cruz Baroque Festival.

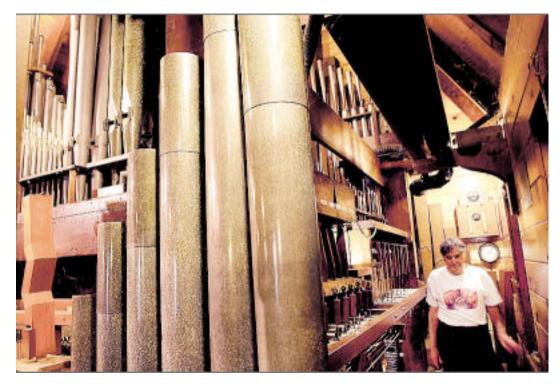
By WALLACE BAINE

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Preston 'Boom' Boomer plays the 2,500-pipe organ he and his students... (Shmuel Thaler/Sentinel)«1234»

SONICBOOMER









The lush, redwood-draped hills of Bonny Doon are famously quiet. You don't expect to hear much there "" maybe faint and sporadic birdsong in the morning, the whisper of a high breeze in the afternoon.

But if you live anywhere near Preston Boomer's place off Empire Grade "" jauntily tabbed "Boomeria" "" you get used to occasionally hearing something positively medieval, something that, if you're not expecting it, might stop your heart.

"This is a hymn written back around 1200," says Boomer, sitting before his triple keyboard in a small chapel near his home. "It has 25 verses telling you what it's going to be like when you get down there," he says, pointing his thumb to the ground.

With that, he makes a sound that surely has to envelope his entire area code, a chord of such ominous, molar-rattling, Old-Testament menace, I feel myself buckle at the knees.

This is music of elemental and ancient power and it's coming from a lovingly maintained instrument that has become famous in Santa Cruz classical-music circles. It's the Boomeria pipe organ, which Boomer rescued way back in 1953, and, with the help of generations of students from his physics classes at San Lorenzo Valley High School, has rebuilt

and refurbish so that it now features more than 2,500 separate pipes.

The Santa Cruz Baroque Festival has embraced the magnificent old Boomeria organ and this weekend, the festival makes it annual trek up to Boomeria to take the old girl through her paces. The "Boomeria Extravaganza" is a fundraiser for the Baroque Festival, and will feature a number of organists playing the organ, which is housed in the tiny Chapel Royal, which only seats about 45 brave souls. Others will sit on chairs amid the redwoods around the open doors and windows of the chapel and no one this side of deaf will complain of not hearing it.

Boomer, known by friends and neighbors as "Boom," teaches chemistry and physics at SLV High and uses his redwooded acreage as a kind of educational playland for his students. Boomeria also features a castle and dungeon and 140 meters of underground tunnels known as the "Catacombs."

But first and foremost among the curiosities at Boomeria, at least for music lovers, is the great organ, built originally in 1894 and orphaned in 1953 by the Trinity Cathedral in San Jose. The organ console had only two sets of pipes at the time, and Boomer used it as a kind of ongoing physics experiment for his students, building onto it until the chapel where it is housed could barely contain it.

Boomer, who is an accomplished keyboardist, comes to his years-long obsession with the organ not as much through music as through science. He remains fascinated by the ancient technology of the organ. "This is about as close as you can get to a genuine medieval organ," says Boom, manipulating the 40 stops, called "ranks," of the organ. "It was invented largely by Archimedes in 300 B.C."

With that, he explains the interplay between water flow and air pressure that makes the organ work. His one nod to modernity is to have an electric pump to maintain the water pressure and provide the wind needed to make all the differently pitched pipes sound. Otherwise, he would have to find 20 slaves to manipulate the bellows with their feet, not a practical course of action in this day and age.

"This is the first synthesizer," he says. "And it's really exciting from a physics standpoint. The speed of sound is 350 meters per second and the time it takes to go up and back through a particular pipe determines the pitch."

"When I first discovered the Boomeria chapel, catacombs and organ," said musicologist and Baroque Festival artistic director Linda Burman-Hall in an e-mail exchange from Bali where she is doing research, "I almost couldn't believe that such a marvel could exist tucked away in the Santa Cruz hills. Its 40 ranks and 2,500 pipes offer every kind of organ sound "" the real voice of the pipes and not a digitized facsimile."

Boomer himself seems deeply attuned to the moods and connotations of the music that his organ plays. He pulls a few ranks to activate some of the tapered pipes at the front of the organ and introduces what he calls "Robin Hood music" and you can hear exactly what he's talking about.

At one point, he launches into a lesson on the 1415 Battle of Agincourt, turning to the organ to play a passage of haunting majesty. "That's what they needed to go to battle," laughs Boom. "Three thousand Brits are about to destroy 30,000 French knights. How do you think they did that?"

The organ, says Boomer, is probably finished with its add-ons; any more pipes would make the chapel even smaller for visitors. The organ is tuned every year in advance of the Baroque concert a tuning takes about eight hours. Much of the maintenance today, he says, is to get small animals, mostly bats, out of the pipes. "When you put an organ in a barn, you got to share it with animals."

Boomer offers me a quick tour of the organ's innards and I walk into a small passageway to see the enormous bellows and the towering pipes overhead. This "organ crawl" is a big part of the Baroque Festival event, as curious onlookers get an up-close-and-personal look at what Burman-Hall calls the "computer of its day."

It's inside the organ where you can see its intricate technology at work, where you can feel a whiff of the wonder that must have guided Archimedes in his discoveries of the principles of air and water.

"When you engage in the organ crawl," said Burman-Hall, "you actually enter the organ as organ builders and tuners have across the centuries. You see the tracker mechanism over your head and, around it, you hear the pipes opening up all around you, and see the air that sounds the pipes' lift ribbons. You are in the heart of a miracle."