

# He's Got it Figured Out

**Ayer Built a New Life Making Wood Puzzles**

By Mac Daniel  
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Ayer did sell the boat. But in a nondescript first-floor office in downtown Marblehead, he continues to make his puzzles.

— In 1986, after a long career spent designing tools to cut steel, Jim

For Ayer, satisfaction comes in the final product, which puts ordinary cardboard die-cut puzzles to shame. Like the puzzles his grandfather once pondered, Ayer's puzzles are made of African okoume wood with pieces that fit together with that just-so "click" and stay together when held aloft, like a piece of paper.

Ayer took his life apart, put it back together, and decided to make custom wood puzzles for a living. "I just kept thinking to myself: Unless you do this thing at some point, you're never going to do it," said Ayer, 65, a lifelong puzzler who took this new direction after a divorce and a move East. "It was something that was eating me. But the thing is, most people don't even know what a real jigsaw puzzle is. So I thought I should just sort of gulp and go forward. If it works, it works. And if it doesn't, you sell the boat."

At the time he was making his life change, Ayer's greatest challenge was how to make the puzzles. Plenty of manufacturers were cutting their creations with jigsaws, a traditional and tedious task that yielded puzzles with prices in the hundreds and sometimes thousands of dollars. That was too expensive.

And because Ayer said he couldn't afford them, his main goal became making the same intricate puzzle for less.

Puzzles cut by a jigsaw only allow so much detail before the saw blade gets in the way. And most real jigsaw puzzle makers were limited in how they made their "figure pieces" — intricately cut shapes of horses, dogs, fish and whatnot within the puzzle — a trend that started in Salem when it was home to gamehouse Parker Brothers and its Pastime Puzzles, one of the nation's most popular brands.

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His yen, he said, is to make a product that harkens back to the puzzlemania heyday at the turn of the century, a time when the nation's families gathered around hundreds of pieces of ornately cut wood — some along color lines to increase the challenge — and worked together to make sense of the chaos.

Ayer's puzzle passion began as a boy in New York City and later in the suburbs, where he would go to the local library and take home old puzzles. In the 1970s, a friend began lending him Par puzzles, old wooden jigsaws that were considered the Rolls Royce of puzzeldom, made by two men in Greenwich Village during the 1930s.

**DON'T FORGET TO VISIT MY WEB SITE FOR A GALLERY FULL OF PUZZLES OR REQUEST MY TWO CURRENT CATALOGS.**

These puzzles were created during America's puzzle heyday at the onset of the Great Depression. Puzzling's popularity peaked in 1933 when sales reached an astounding 10 million per week, according to Anne D. William's "Jigsaw Puzzles, An Illustrated History and Price Guide."

After the war, however, as die-cast cardboard puzzles

offered a cheap alternative, wooden jigsaw puzzles went the way of the Lindy and flappers. Of course, a hardcore group still hangs on to the beauty of these puzzles, but their popularity has never returned in full force.

Ayer would love to change that, but he acknowledges his profession is a tough sell.

"But hope springs eternal," he said, "and every now and again you find a new way to get out knowledge about puzzles. But I certainly wouldn't want to be doing anything else."



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## Fresh Ayer News FALL 1999

### Personalized Puzzles Make Events Extra Special

When Janice Biron began planning her daughter Julie's bat mitzvah, she wanted the day to be extra special. In the past, her family tradition included the lighting of a candle by each of thirteen important friends or family members, to signify the years of his or her life. *(Continued on inside cover)*





# Personalized Puzzles (Continued from cover)

But Jewish law says that no candles should be lit on Saturday, the Sabbath. Julie's bat mitzvah, like most, was scheduled for a Saturday in June.

Janice needed to find an alternative to candles for her daughter right of passage. She decided to have a jigsaw puzzle made that could be put together by those people close to Julie in lieu of candles. The 16-piece puzzle would have to be big enough to be seen by more than 100 people and would need to

feature a picture of Julie.

She began her search for a puzzle maker by visiting every toy and puzzle store in the Pittsburgh area but she could not find anyone who could make a custom puzzle to her specifications. She was told that cardboard puzzles are produced in Asia and cannot be custom made. Finally, someone suggested she try searching the Internet. She looked up jigsaw puzzles in a search engine and called each of the twelve companies that she found.

Each time she was told that they couldn't make the puzzle big enough or to her specifications. Their jigsaws just can't handle it. Finally, she called Jim Ayer. Of course, Jim said. He could make it any size she needed, with puzzle pieces in special shapes, like the three golden retrievers to signify Julie's dogs, and the middle piece shaped just like Julie's face from the photo that Janice provided.

While Jim designed and cut the puzzle, Janice had a purple frame built for the puzzle and placed it on an easel in the temple. On the day of the event, the band leader called Julie's friends up to the puzzle one by one and asked them to place a piece in the frame to the sound of Israeli music. Finally, after all of her special guests placed their pieces, only a large center piece was missing. Julie came up and placed in her face.

Janice was overjoyed with the results. "People went crazy over the puzzle. It couldn't have come out better. I was afraid the pieces would fall out of the frame, but because they are so tight fitting, they stayed together perfectly. Now the puzzle sits on the easel in our living room. I wouldn't be surprised if Jim gets many more requests. I have told so many people!"

In fact, Jim has made several more to rave reviews. He also makes custom puzzles for weddings, anniversaries, birthdays and other special occasions. For example, the small puzzle pictured below, which measures 4" in diameter, served as a promotional piece for magazine editors in a recent publicity campaign. For more information on how to order your custom puzzle, check Jim's web site at [ayerpuzzles.com](http://ayerpuzzles.com) or call him.



Julie Biron  
24" x 30"



Sample of custom puzzle  
4" in diameter

So Ayer let his engineering mind wander; and he began fiddling.

A wire saw worked well, but was especially slow and labor intensive. He tested lasers, but they scorched the wood — no good for a perfectionist.

Finally, after 1 1/2 years of research, Ayer devised a means of cutting a puzzle with unheard of accuracy by using, of all things, a stream of highly accelerated water.

"Go figure," he said.

Using a diamond nozzle that can withstand the strain of 55,000 pounds per square inch, a computer-assisted drawing system and a robotic table that cuts the patterns, Ayer's puzzle-making machine now has its own room, where it makes a racket cutting patterns sans human hands. Ayer usually goes in the other room and waits for more

orders or for the machine to finish its job.

The final cuts on his puzzles measure about 7,000th of an inch wide, almost invisible compared to a jigsaw cut and thanks in large part to a stream of water traveling at about mach 2, or twice the speed of sound.

**WE GET VERY BUSY  
THIS TIME  
OF YEAR.  
ORDER EARLY  
FOR DELIVERY BY  
CHRISTMAS.**

"It'd go right through your finger," Ayer said. "Stop at the bone. And it'd give you a nice, clean cut. No rusty knives here."

The technology has allowed him to create detail that's rare in puzzles. Those "figure pieces" within the puzzle are one example. Ayer's puzzles

contain silhouettes of couples' toasting, skeletons, thin-legged crabs, snails, sharks, apples and dragonflies, all cut with tender exactitude.

The art on the puzzles is just as interesting. Original artwork by local, national and international artists graces the puzzles. Ayer can customize and personalize his work.

To make the puzzles even more difficult, Ayer places no pictures on the box, the better to disguise clues.

"You're not supposed to know what you're putting together," he said.

He sometimes even cuts his edges into shapes, the better to frustrate those puzzlers who start with straight edges and work inward. His creations are priced from \$97 to \$510, with some custom-made puzzles going for even more.

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