

BEER AND CHICKEN WINGS CROWD

The day before Kodak announced they were laying off thousands more people, they would send over their government relations director to tell us," Battley said. "The next day, it would be on the front page. The newspaper reporters would bang on the door of the county executive and mayor and want to know about our shrinking economy."

On the front pages, Rochester looked like another withering northern industrial city. Yet Battley knew Rochester was growing jobs faster than Kodak could lay off workers.

Cotton wanted his business to grow too. "I read a book about word-of-mouth marketing, and one of the things it said was to join an organization and take an active role to get your name out," he recalled. "I looked around and there wasn't one."

But Cotton did find an informal optics group that met irregularly for chicken wings and beer. It attracted many of Rochester's small business owners to trade information and exchange gossip.

"I jumped on it," Cotton said.

The group began meeting monthly. It attracted new members. One was Jim Sydor, who joined his father's small firm after graduating from Monroe Community College's optical technician program. Kodak made up three-quarters of Sydor Optics' business. Like the others, Sydor needed to reinvent the family business.

So when Bob Breault, a successful optical engineering entrepreneur from Tucson, Ariz., came to town, several beer-and-wings guys went to hear him speak. Breault talked about clusters, and how he positioned Tucson's optical industry as Optics Valley, the center of the nation's optics industry.

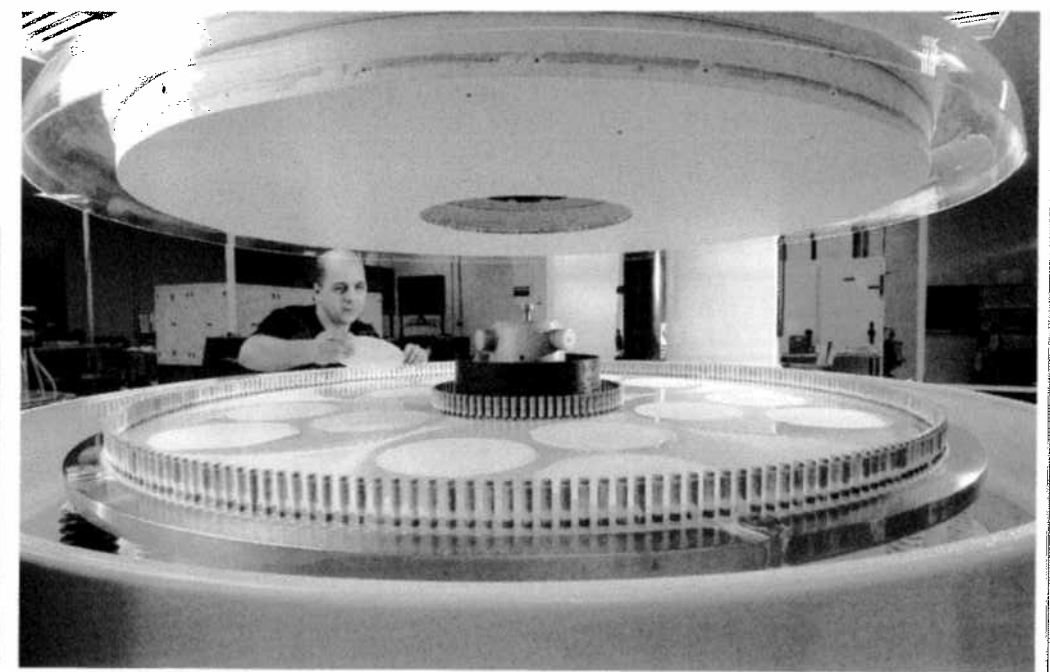
Cotton, who was there, had never thought of Rochester's optical industry that way before. Yet Rochester had a larger and more established optical industry than Tucson. Cotton asked Battley to help him put it on the map. Two weeks after the visit, the Rochester Regional Photonics Cluster was born.

"We realized we had to do what they did in Arizona," Battley said. "We had to promote our cluster."

"We wanted people to know that if a Rochester company recruited you, you could move here and there would be sufficient opportunity if it did not work out. This was not the land that Kodak forgot."



When digital cameras upended Rochester's main company, Kodak, small optics companies like Sydor Optics, right, had to adapt to survive.



This was not the land that Kodak forgot.



Researchers rely on precision optical components from Rochester. Above, windows from Sydor Optics are used in Sandia National Laboratories' Z-Beamlet, a powerful x-ray laser. Below, Rochester's Laser Energetics Laboratory.



Rochester optics firms needed to raise their profile. At left, Rick Plympton, Tom Battley, and Chris Cotton lobbied Congress about the importance of optics, photonics, and imaging. Local firms created a "Rochester aisle" (right) to boost their cluster's visibility at optics conventions.



SHOWS OF FORCE

The Rochester Regional Photonics Cluster sought ways to promote itself. Instead of going to trade shows individually, they rented an aisle as a group. "Now everyone knows they can come here to design their device, make the optics and electronics, and assemble it in a precision housing. It's one-stop shopping," Sydor said.

To raise its profile, the group approached an international optical society, SPIE, to launch a biennial conference on optics fabrication in Rochester. The conference, OptiFab, opened in 2003 and drew 1,700 people, 500 more than expected. The cluster also convinced the Optical Society, which was founded in Rochester 1916, to hold some of its annual meetings, including its 100th anniversary, in the city. The cluster also drew several small but prestigious NASA and Naval Air meetings.

It was not all smooth sailing. The year after OptiFab opened, the University of

Rochester's Center for Optics Manufacturing, one of the city's two key laboratories, closed. Meanwhile, Kodak's business was crumbling as digital cameras ate away its film business.

Many smaller optics firms had already diversified and survived Kodak's fall. But they were just waking up to the fact that they relied on Kodak to train their technical workforce.

Optical technicians are the men and women who build prototypes, and set up and run the manufacturing systems. Kodak had partnered with Monroe Community College to teach its employees these skills. Kodak funded MCC's labs and its 30 to 40 tuition-paying students every year paid the salaries of the program's three full-time professors.

"That program was important," Cotton said. "For every engineer, you need two or three technicians. There is no other place technicians can go to get that

type of training," Cotton and others recruited MCC students or hired them away from Kodak.

Without Kodak to fill those seats, the program had withered to just three students by the time Dianna Phillips joined the college as dean of technical education in 2005.

"The technology we had was obsolete, and some of the faculty had been there a long time and didn't want to update the curriculum," she recalled. She had to decide whether or not to pull the plug on the program.

Then she began talking with Battley, Cotton, Sydor, and others. They made it clear how much they needed the community college graduates and offered to help. Industry leaders helped Phillips update the curriculum. They spent hours interviewing new adjunct faculty candidates.

One was Josh Cobb, who learned about the adjunct position while substituting in a baseball game. Cobb came to Kodak from IBM in 1996, and was working at Corning Advanced Optics. He had designed precision optical instruments for more than 20 years, and had taught classes at IBM.

"I said I would like find out about the position, but when I called, I was told they couldn't discuss it until I filled out an application," Cobb recalled.