

A Retrospective: The American Shotcrete Association

By Ted Sofis

It was 1998. We were doing shotcrete repairs on the Prince Gallitzin Dam project near Altoona, PA, when I saw something unusual in the documents: The specifications called for an ACI Certified Nozzlemen on the project. I had never seen that in a specification, and we had been using shotcrete since the early 1960s. I wasn't overly concerned because I felt confident in our skilled people — all of them had over 20 years of experience performing shotcrete work, and much of our industrial work was by invitation only, meaning that the owners only invited contractors who they felt were qualified to bid on their projects. I remember feeling annoyed, however, that we needed evaluation by someone whose level of experience we had no way of knowing.

There was a phone number listed, so I called about getting my nozzlemen certified and spoke to someone who I assumed was an engineer. I don't even recall today to whom I spoke with, but I was told that the program was not up and running yet. I was then asked if I would be interested in certifying people.

My first thought was, why do I need these guys? It sounded like a dog and pony show. How could the Department of Environmental Resources ask me to provide them with something that did not yet exist?

I called the project engineer and apprised him of the situation. I then submitted resumes for our nozzlemen, superintendent, and other personnel, along with a long list

of projects and owner phone numbers. That was my first exposure to the American Shotcrete Association (ASA).

THE BEGINNINGS OF THE ASSOCIATION

As Patrick Bridger recollects, the idea for a shotcrete association came up at an October American Concrete Institute (ACI) meeting. A group including Patrick, Curt White, Meryl Isaak, Rusty Morgan, Marc Jolin, JF Dufour, Pierre Lacombe, Chris Zynda, Michael Cotter, Pete Tatnall, Lars Balck and others that felt there was need for a group to represent this widely misunderstood process of pneumatically placed concrete.

People fear or discount things that they don't understand. It would be necessary to educate not only the owners and contractors, but the engineering community as well. This diverse group of shotcrete professionals included contractors, engineers, equipment manufacturers, and material suppliers — it was a good cross section of the industry.

STREETSBORO, OH

Lars Balck told me that it was Ted Crom who had pushed for a certification for nozzleman (now called shotcreters) by ACI. ACI 506.3R-91: Guide to Certification of Shotcrete Nozzlemen was written and although the guide was later removed when ACI certification was developed, Marc Jolin and JF Dufour put together the first craftsman's book for ACI certification. George Yoggy, a spokesman



An early ACI Nozzleman Certification session at our Sofis Company shop with Ray Schallom in Clinton, PA.

and life-long advocate for shotcrete, made the Master Builders facilities in Streetsboro, Ohio, available for the ASA/ACI Shotcrete Nozzleman Certification's trial run.

I spoke with Ray Schallom, and he told me they all worked together for 2 weeks on the curriculum, the education slides, and the craftsman's study book. In addition to Ray and Lars were Neil McAskill and Milt Collins, the first ASA Executive Director. Some test panels were made and shot. Ultimately, they certified 16 nozzlemen. A second session with George Yoggy was held the following year in 1999, working with Baker Concrete in Orlando, FL.

JOINING THE ASA

Fast forward to 2004, and Bill Fortuna of Quikrete told me that I should join the American Shotcrete Association — it was a good group, they had a lot going on, and I should be involved. After Bill planted the seed in my mind, I spoke with Tom Norman of Airplaco-Gunite Supply, a good friend and supplier, who encouraged me as well. The next thing I knew, I was off to the World of Concrete Convention in Las Vegas where the ASA committee meetings were being held.

We were at the Monte Carlo the first year that I attended, and from our first few meetings I realized that I had a lot to offer. I learned, in discussions with other contractors, that we all were experiencing the same problems. Material manufacturers were specifying products and systems for shotcrete that really didn't work well. We were all having difficulties using these systems and bonding compounds with shotcrete.

I wasn't a lone voice in the woods. We had to educate our customers and the engineering community on what works with shotcrete, and what doesn't.

The specifications were outdated and in need of revision. I volunteered on several committees and began writing articles on various shotcrete-related topics. One thing that appealed to me was the variety of people involved: The ASA wasn't just a contractor's association. It included engineers, educators, equipment manufacturers, and material suppliers. We had a lot of experience and talent in the group, and all of us were interested in advancing the industry. It was time to raise the bar, which meant encouraging good practices, writing better specifications, educating the engineering community, doing a better job in training our workers and stressing quality shotcrete placement.

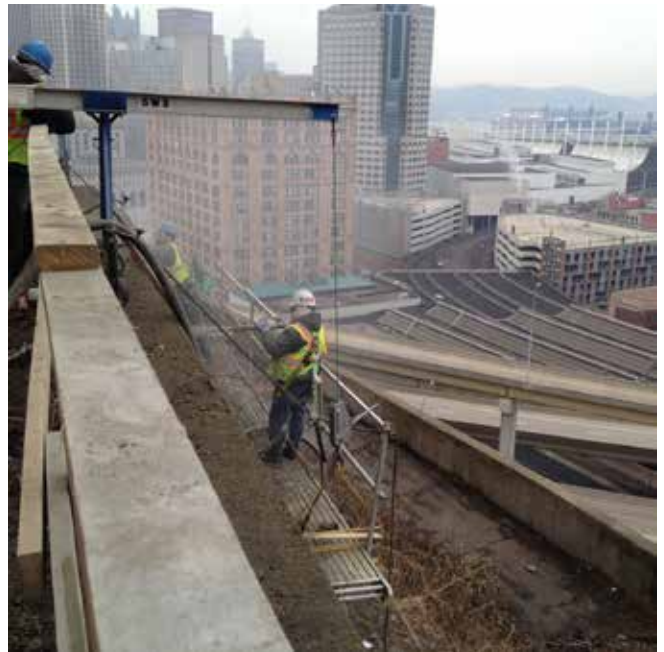
Poor workmanship over the years had owners and engineers wanting better assurance that the people performing the work had the necessary skills and training (hence the previous request that my nozzlemen be ACI-Certified). That became a major factor behind the ACI Nozzleman [Shotcreter] Certification program.

WORKING ON COMMITTEES

During those early years, we members did almost everything ourselves. When we had committee meetings for marketing, education, and publications, we would ask for volunteers to write articles on various topics. Our diverse membership



At Sofis Company, In Clinton, PA, with ACI Examiner, Ray Schallom after an early Nozzleman Certification session.



Shotcrete repair to a retaining wall over an embankment overlooking downtown Pittsburgh.



Slope stabilization in Westernport, MD. One of the advantages of shotcrete is being able to effectively place material in hard to access areas.

gave us a wealth of experience on everything from tunnels, dams, bridges, structural walls, concrete repair to industrial refractory installations. In many cases it was a labor of love: These were topics and things that we cared about.

Rusty Morgan wore many hats and served as our technical editor. A group of us would respond and answer shotcrete-related questions on our ASA website. I remember working with Marcus von der Hofen and Ray Schallom on the presentations for nozzleman education. I recall nice messages that I received from the late Pete Tatnall about articles that I had written for the magazine. Encouraging new voices — that was always a priority for us.

One my favorite memories was of a breakfast I had with Oscar Duckworth at the Monte Carlo in Las Vegas. Oscar wanted to share the viewpoint from a shotcreter's perspective, but he was not comfortable writing. I assured him that it would be okay, none of us were going to win the Pulitzer Prize, and we would help him with any editing that might be necessary. This led to a regular feature authored by Oscar called "Nozzleman's Knowledge" (now known as Contractor's Corner).

We developed close relationships working together on a variety of projects. Charles Hanskat, Marcus von der Hofen and I worked on a series of sustainability articles. As our Association grew, we brought Charles Hanskat on board as both Executive and Technical Director. As the Executive Board, we met in Detroit to work on the long-range strategic plan. Our group included Scott Rand, Joe Hutter, Charles Hanskat, Michael Cotter, Patrick Bridger, and myself. Scott Rand spearheaded the effort to take the goals identified at the Strategic Planning initiative and establish a timeline to achieve them.

THE ASA TODAY

We've come a long way since those early years, and the ASA has achieved many of its goals and objectives. Shotcrete is now widely accepted and specified in a variety of applications. We have published technical papers and provided resources for shotcrete-related information. Although we still rely on volunteers for content and technical



We needed to educate people about the advantages of shotcrete, such as the ability to place material overhead, as on this bridge hammerhead outside of Pittsburgh, PA.



Dry Process Shotcrete repairs on the base of a dam in central Pennsylvania. Conveying and efficiently placing material is one of many hidden advantages of using shotcrete.

expertise, our Association staff does a great job keeping all the moving parts running smoothly:

- Charles Hanskat serves both as our Executive Director and Technical Director.
- Alice McComas is the Assistant Director.
- Tosha Holden is the Member Engagement and Marketing Manager
- Cara Baker is our new Managing Editor and Graphic Designer for Shotcrete magazine.

AN OVERVIEW

This is by no means a detailed history. While I've provided a few recollections from my own perspective in this article, I know there are many, many important members and contributors I have not mentioned. The ASA was and is largely a collective effort. I am very proud of our organization and of all that we have achieved in roughly a 25-year span of time.

I would also like to offer a very special recognition of the ASA members who are no longer with us. I thank all of you who have unselfishly given your time and efforts to the advancement of the industry.



Ted W. Sofis recently retired as owner of Sofis Company Inc. with 47 years of experience in the shotcrete industry. He is an ACI Shotcreter Examiner and has served on the ASA Executive Board of Directors, the ASA Board, and 11 years as the Chair of ASA's Publications Committee, as well as being a member

on several other committees. Ted began performing shotcrete work during summers while in college from 1971 to 1974. After graduating from Muskingum College in 1975, he began full time as a shotcreter and gun operator gunning refractory in ladles and blast furnace troughs in the steel industry. Ted has worked in the shotcrete industry performing work in the power generation and steel industries, and on bridges, tunnels, dams, spillways, slope-protection, and a variety of other installations over the years.