

PACC's Historic Skinner Organ Gets A Brain
By Kathleen Fink 11/11/12

The Park Avenue Congregational Church's E. M. Skinner pipe organ was built in 1919 in Dorchester, Massachusetts for St. Mark's School in Southboro and relocated to the Arlington church in 1961. Ernest M. Skinner was a gifted and innovative builder whose work was of the highest quality in both design and workmanship. Restored Skinner organs have been increasingly appreciated by modern organists and the Park Avenue church's organ is considered a treasure by the congregation.

Although it continued to serve yeoman's duty, in recent years it had become obvious that the organ's console and switching system needed attention. For example, worn ivory key covers would sometimes fly off when the organ was being played, and many controls were intermittent and unpredictable.

After several months of refurbishment in Joe Sloane's Waltham pipe organ restoration workshop, the beautifully restored and refinished console was carefully moved through doorways with only inches to spare and lowered into place on reinforced flooring. It took several additional days to connect the wiring and make adjustments before the organ was ready for use again.

Joe Sloane is a graduate of the Art Institute of Boston who came to his profession via his love for beautiful form, craftsmanship and mechanical design, combined with a love of music. Joe apprenticed for many years in the Boston University workshop of Nelson Barden, preeminent organ restorer and authority on the work of Ernest M. Skinner. In his restoration work, Joe always strives to focus on the intent of the original builder; in this case, Ernest M. Skinner.

Joe and his colleagues consider Mr. Skinner to be a master at combining visual elegance with mechanical integrity and tonal balance. Mr. Skinner was also one of the first organ builders to standardize dimensions of various console components and the distances between controls in an effort to make consoles as uniformly ergonomic as possible.

It was clear to me that this organ console had become like a child to Joe. The beautiful quartersawn oak gleams, and the keyboards, stops and other ivory elements have been masterfully replaced using legally-sourced antique ivory. In order to match the style of the original engraved lettering on stop knobs and tablets, Joe worked closely with a company in California that specializes in this exacting work.

Many of Joe's colleagues added their specialized woodworking, refinishing, engineering and keyboard restoration skills to the project. Jonathan Ambrosino, a consultant to many churches nationwide and curator of several prominent pipe organs in the Boston area, lent his expertise to the PACC project by steering many important console design decisions back to the original Skinner Company standards.

There was equally considerable elegance and engineering applied to a comprehensive electrical upgrade. Vladimir Vaculik, an electrical engineer and expert in new solid-state pipe organ control systems, came to Boston from Michigan to assist with the PACC project.

PACC's Historic Skinner Organ Gets A Brain
By Kathleen Fink 11/11/12

Before the addition of state-of-the-art equipment, hundreds of separate wires would carry electrical signals to individual organ pipes, resulting in the desired sound being produced. A large bundle of identical-looking wires snaked from the console to the chamber where the organ pipes are located. The implications for dealing with a faulty wire before the days of modern color coding are clear and not fun to contemplate.

Now, when a key is pressed, information is sent to a computer processor. Information about the positions of keys, pedals and other console controls at any point in time is gathered via a panel inside the console. The console processor then creates a data stream representing the changing pattern of countless on & off signals.

A single Ethernet cable carries data to a secondary processor located in the organ chamber where the process is reversed. The data stream is redistributed to create individual electrical signals which activate the pipes in the proper timing and sequence. The ability of computers to process large amounts of data very quickly means it takes a small fraction of a second between when an organ key is depressed and the note is heard.

In fact, the electrical connection time and response are now remarkably consistent for all of the organ keys. PACC Organist and Music Director, Jeffrey Brody, is very happy about this. He no longer needs to compensate for inconsistencies in note responses and can focus all his attention on other aspects of the process of making music. In addition, rapid-note organ passages have become much easier to play.

All of the new console and chamber wiring is now code-compliant and maintenance-friendly. Wires are color-coded and a wiring specification book has all the details clearly outlined. The computer processor is backed up to support any new maintenance that will be required in the future.

Another benefit of this upgrade is that a copy of the computer-generated data stream instructions for a piece of music may be saved as a digital file. When these recorded instructions are sent back to the processor in the organ chamber, an exact duplicate of a piece will be produced. This is particularly useful for balancing sound levels among various performers. For the first time, it will be possible for Jeffrey Brody to get up from playing the organ, go to the back of the Sanctuary and hear how the organ and choir sound together. Joe Sloane explained that this feature is not intended for use in actual performance as there is normally a desire to be able to vary the tempo to suit the inspiration of the moment, soloist timing and other variables.

When asked what makes this particular organ special, Joe replied that the PACC organ is the anchor of an outstanding music program and a key part of the church's identity. I was happy to confirm that many in the congregation care a great deal about the Skinner organ. Joe told me that he knew this from personal experience. A few years ago, he had come to a Trumpet and Organ concert, a part of the ongoing PACC Concert Series. The organist, Mark Engelhardt, graciously invited folks to come up to get a closer look at the organ. I remembered this event and was among those who were eager to learn more about how the organ worked.

PACC's Historic Skinner Organ Gets A Brain
By Kathleen Fink 11/11/12

In addition to his duties at PACC, Jeffrey Brody is Music Director of Longwood Opera and coaches opera singers who have been known to take advantage of the amazing acoustics in PACC's sanctuary. An amusing incident happened on the day the restored console returned to the Sanctuary. Joe and Vladimir were in deep concentration and about to test the console's operation.

At the precise moment when the organ blower was turned on, they heard a full-voiced operatic tenor singing, "O Sole Mio." That was Francisco Casanova, a world-famous Metropolitan Opera tenor, who happened to be at PACC that day. As Joe Sloane described it, "Vladimir jumped out of the chamber and I jumped away from the console; what had we done?" As far as they knew, there were no tenors installed in the organ!

There is more restoration work to be done in the organ chamber before the organ is completely up to snuff and ongoing maintenance is crucial to protecting the organ's integrity. Carefully planned and executed restoration work always takes into consideration the design and intent of the original organ builder. In its intended form, the pipe organ functions as a fully integrated system of components that combine efficiently into a marvelously efficient machine.

Peter Sykes, organist at First Church in Cambridge would be glad to learn that his advice has been taken to heart; "It's a grand, beautiful resource, value it, and take care of it. You will never regret it, I can assure you."