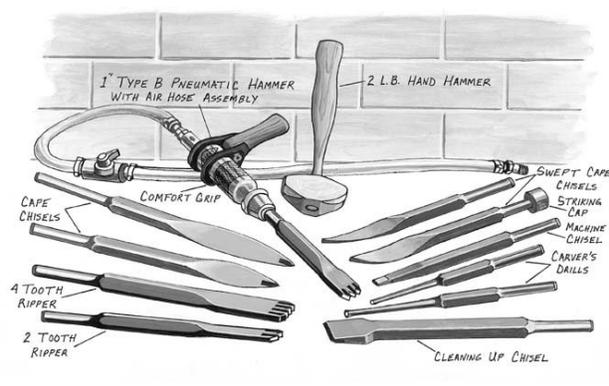


Stone Mason and Acoustician Gets Passed Over by the Church

Recently an older church in Owen Sound required some restoration and repair work. The church was built in 1855. The church was built with Limestone quarried hundreds of miles away in Kingston. The quarry that supplied the church was still active. The original stone work was commissioned to a Mason Company from England and as it turned out, the Mason Company was still in operation, even to this day. The church looked into their historical records, found the name of the Mason Company and contacted them. This all took place around 1989, just before the World Wide Web was widely in use.



In the weeks that followed, the church announced a fund raising campaign and gave details of the planned restorations. Just before a group of church members left for England to solidify and hammer out the details of a contract, a church



member who was always absent from church half of the year, offered to do the stone masonry work at a very low price. As his absence was so much, no one really knew much about his career. Sure, he did tell them he was a Licensed Stone Mason but the church wanted Masons who knew how to do the detailed work as done by the company from England. The church was convinced that the British Company had

sent their masons from England to build the church.

When the delegation arrived in England and met with the Mason Company, they soon learned that only a supervisor/Master Mason from England was sent to Canada. It was former slaves from the USA who were smuggled into Canada through the Underground Railroad, who were Master Masons, which were employed by the British company that actually did all of the stone work. They did all of the original stone work in building the church. Upon concluding a contract, the British company said that their best Master Stone Mason lived not far from the church in Canada. They



said he lived close enough to their church that they wouldn't have to charge extra for lodging, meals and transportation. They also learned that this stone mason was a direct descendant from one of the former black slaves whose first job as a free man helped build the church in 1855 and used the skills he learned as a slave.



A week after the church delegation returned to Canada they agreed to have a meeting with the stone mason. Standing at the entrance to the board room at the church was the same man who had offered to do the mason work for a very low price. Sure enough, the church board members expected to see a black man in their board

room. Instead it was a white man with a contract in one hand and a cup of coffee in another. The red faced church board members slouched in their seats realizing that if they did their homework, they could have had this man for a fraction of the costs that they were now under contract to pay.

The board members quickly discovered that this stone mason was not only the best stone mason but also did work for Royalty around the world. They learned that his great great great grandfather was indeed a former slave. As a free man, he married a white woman. So did his son who married a European woman. In every generation since, a member of the family became a stone mason and over that time the family had created signature cuts and fittings and one of those fittings was invented by his great grandfather and first used on this church in 1855. That skill was passed on from generation to generation and the secrets or skills needed to make those cuts have never been shared by people outside of the family.



Within the church community, there are many skilled people who can contribute to your church in ways other than tithing. Before starting any church project, look from within. Do the home work, research the person's skills and visit any past projects. There are skills and talents that are unique to churches, for churches and affordable for churches.

Part 2

The reason for mentioning about the *World Wide Web* is that as abundant as the Internet is with information, many of the trade secrets or tricks of the trade are not being shared on the internet. Many trades such as being a black smith, stone work, musical instrument builder and church acousticians, they don't share their secrets, their experiences or wisdom. It is not that they don't want to but it is because the skill or secret is not something you can learn in five minutes and suddenly be an expert in that field. These are also trades that you can't just research on the internet for 10 hours, pick the brains of a number of experts and come up with the right solution on your own. Why? Because of the infinite number of variables.

For example, in acoustics, one of the many variables often misunderstood is frequency.

Frequency is more than just speed, energy and length. It

also included temperature and humidity which means it is dynamic as well. Did you know that when a church is occupied with people the temperature and humidity changes constantly during a worship service? Humidity changes the speed of sound while temperature changes the pitch of the sound. So when planning an acoustical solution, the solution has to include how the room will sound when it is empty, all of the different levels of being occupied, where the people are sitting, where the sounds originate, where people are to hear the sound and so on.

Recently I visited a church that already had barrel diffusers on the walls similar to the kind of work that I do. The church was not happy and they were very upset because they copied a project they found on my website. They visited the church, which was similar to theirs, copied their layout and thought that they could have the same results. Instead, as I often warn on my website to first get professional help before starting a DIY acoustical fix, they did not, and the results were down right awful. As it turned out in this project, the ceiling was one foot higher,





the room was one foot wider and ten feet longer. The side walls were taller. The cathedral ceiling was flatter and the laminated beams were much smaller, than the church they had visited.

The church said they researched on the internet and put together enough information that they thought

they came up with a working solution for them. They followed some of my rules of diffusers that were posted here and there such as the tubes being 2/3rds the wall height, minimum tube spacing at 19 inch center with 8 inch half rounds. One person repeated to me several times that he spent over 60 hours researching, created spread sheets, had other experts over look his calculations and those experts said he got all the number right. They thought that this and other information they learned on the internet, from visiting and talking to several of the churches I fixed was a recipe to gain basic control.

Wrong, what they came up with was just a guide line to know how much to budget for such a project.

What they learned from the internet could have never been a meaningful solution for them. By following this guideline - designed with good intensions - they created nothing more than a work sheet to estimate the cost of materials, the time and size of work space needed to do all of the prep work and installation. When this church followed these guidelines as a solution, they wound up killing the room - as if they installed mineral wool on the walls. They created a pitiful performing recording studio sound stage. At the same time, echoes became more distinctive, flutter echoes were much more audible on stage, the congregational singing dropped off to below 10% of the audience and the monitor spill from the stage became worse because they thought the angled walls around the stage



didn't need the acoustical treatment. Angled walls at the front of the church are supposed to help – right!!!

I knew the church had passed me over before they started their acoustical journey because they didn't like the look of the acoustical systems I often used. Many churches also think it is poor stewardship to pay for information when you can get it for free. There are also many people who just don't like consultants and the idea of paying for information. I could have walked away and told the church they were on their own. Instead, for a quarter of my regular fee, I reworked their acoustical fix.

They had actually created a low pass filter that was two time more absorptive than 4 inches of mineral wool/insulation. They killed everything above 1500 hertz when what they needed was a treatment for 300 to 600 hertz. I learned later that another high priced world renowned "expert" they talked to misinterpreted the results of properly done acoustical measurements. Part of the new solutions was to reduce the number of diffusers by 20%, exchanged some of the smaller tubes for larger units and had them install diffusers around the stage area with the proper spacing.

The changes took as long if not longer the second time around in volunteer help. Today this church is happy with the results and to their surprise, their attendance didn't just increase back up to previous levels, it passed it by more than 5% six months later. After the proper plan was mounted, some church members thought another new sound system was installed and the



1 What matters is the results. Calvary Worship Centre, Surry BC, Canada

video projector was upgraded but none of that was changed which is a common reaction to a proper acoustical change of a worship space. What was also telling is that all of the people who hated the look of half round tubes on the walls in the original installation were now starting to say how much the acoustical treatment added character to the aesthetics. So why did I give the church such a big break?

To me, churches are like family. We are all on the same team. I think they learned their lesson as they had already spent more money than if they had hired me in the first place. If I had charged them my full rate, they would not have hired me and the church would have most likely removed the diffusers. This also meant that they could have wound up telling other churches not to use this system. Instead, the church now has a great testimony to share with other churches.

There is a skill and art to church acoustics and no matter how much research you do, getting it right is much more challenging than what other experts would lead you to believe. Sure, I'm not the only person doing church acoustics, but I am one of only three other people who have been doing church work exclusively as their full time jobs. We all get similar results with our acoustical fixes as our methods are very similar. It is the results that matter. Our work contributes to church growth and church health. So before looking to the secular world for help in church acoustics, look within the church community. There are experts in churches with talent. The secular community doesn't care if you church grows or not. They all will jump at fixing the problems you complain about but they most often don't tell you of the hidden problems that always shows up in acoustics. We do, and that is why we get consistent high quality results. Like the Stone Mason, we are part of the church community. We make our services available and affordable to every church. Just because were not the most expensive, we know how to do things right the first time.

By Joseph De Buglio

The Stone Mason story is based on true events in Owen Sound, Ontario, Canada.

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