Construction Update Bulletin Board II



A Record of the Renovation of St. Paul's Episcopal Church, 1998–1999

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Introduction

In 1991 and 1992, I maintained what I called the Construction Update bulletin board at St. Paul's Episcopal Church in Mt. Lebanon, Pennsylvania. A capital campaign called Building the Vision had raised money for major building renovations, and the bulletin board was intended to keep parishioners interested, informed, and hopeful during the very messy construction that followed.

That first bulletin board was a great success, so it was difficult to refuse the request to create another one in 1998 for the Continuing the Vision campaign. This time, the parish was installing a new organ and completely renovating the facilities occupied by the St. Paul's Episcopal Nursery School.

What follows are the pages posted on the bulletin board between June 1998 and January 1999. Each page shown was mounted separately on a colored background. New pages, usually about four, were posted each week. The retired pages were added to a loose-leaf notebook. On two occasions, photographs were also placed on the bulletin board. Those photographs are not reproduced here.

Bulletin Board

June 7, 1998

Back Again

Nearly seven years ago, the construction phase of the Building the Vision campaign thoroughly interrupted life at St. Paul's. To keep parishioners informed of what was happening, and to encourage them to come to church amid the chaos, I maintained the *Construction Update Bulletin Board* for seven months. As we enter another period of construction—part of Continuing the Vision—I have decided to bring the bulletin board back.

Each week in this space, I will report on construction progress, decisions being made related to the construction and organ installation, and how the St. Paul's family is coping with the stress of change. Construction in 1998 should be less disruptive than in the 1991-1992 period, and I think we're going to have more fun this time. Stay tuned.

Suggestions and comments are welcome. Call me at home at 343-5337 or leave a message in the A-V mailbox in the church office.

Preparation

After the 10:45 Pentecost service last Sunday, a large work party of mostly parishioners took on the task of preparing the church for the contractor and organ builder. With screwdrivers, pliers, pry bars, and other tools, people set about moving all pews to the transepts and removing the risers in the chancel. Altar guild was meanwhile removing and storing sacred objects we use in worship, the Audio-Visual team was removing microphones and cables, and disassembly of the organ was begun.

The purpose of all this activity was to facilitate the erection of scaffolding to perform acoustical hardening of the ceiling and to clear the way for the installation of steelwork needed to support parts of the new organ. We also needed to move objects such as the altar out of harm's way. On the whole, the project went according to plan and somewhat ahead of schedule. The risers in the chancel, however, proved to be built rather too well to be removed easily, and had to be handled by the contractor. Be-

neath them, where many expected to see an extension of the quarry tile that covers the chancel, was only concrete. Some tile work will have to be added to the list of work to be done.

After moving the furniture in the church, workers got to eat pizza and move treasures such as the Drama Club's stage into a truck that would take it to storage for the duration, as the contractor will need access to areas we have been using for storage.

Late this past week, the contractor began erecting scaffolding in the church. The floor is covered with particleboard, and the scaffolding towers toward the ceiling, where planking provides places where workers can stand. The sight is impressive, but look on from a distance at this hard-hat area.

Also this week, workers have been removing asbestos-containing floor tiles from the Nursery School area, which, for safety's sake, is sealed off. This work also makes it impossible to use the chapel for now. Asbestos removal will be completed soon, however, and Nursery School construction can then begin.

Goodbye, Möller Opus 8885

While parishioners were busy moving pews, Mr. Burton Patterson of El Paso, Texas, was beginning the process of removing our old Möller organ. He was one of several people who responded to St. Paul's offer to sell the instrument that has accompanied our worship services since the early 1950's. Not surprisingly, Mr. Patterson is an organist—he plays for his Baptist church in El Paso—and organ technician, who repairs and rebuilds organs. What *is* surprising is that organs are an avocation for him; by trade, he is an attorney, though he has found time to perform some 60 organ installations in the past 30 years.

Burton Patterson arrived in Pittsburgh Saturday, rented a truck, and purchased lumber to build crates for organ pipes. On Sunday, while we were moving pews, he began taking apart the organ console, so it could be loaded onto his truck. Sunday evening, he was joined by another organ expert, Mr. Bill Dial, of Springfield, Illinois. Over the next few days, Patterson and Dial

worked long hours to remove pipes from the organ chambers, box them, and pack them on the truck. They finished their work Wednesday evening and headed west Thursday morning.

You may be surprised to learn that selling our organ proved quite easy, though, admittedly, it was priced to move rather than to make money for St. Paul's. You may be even more surprised to learn that the organ's new home will be in a larger church than our own. Patterson will augment the instrument both with ranks of conventional pipes and electronic stops, in the process, activating a keyboard that has gone unused all these years. The organ will be installed in the church where Patterson's daughter is organist, First Baptist Church of Keller, Texas, near Dallas. The rebuilt organ will replace an electronic instrument. Because First Baptist has smaller organ chambers than does St. Paul's, some of the pipes will be exposed in the new installation. Möller Opus 8885 should begin its new life in Keller by Easter 1999.



Church in Exile

Services have been held in the undercroft from time to time, mostly to escape the summer heat of the church. For the next few weeks (or months), services will be held there because doing anything in our normal worship space will be impossible. Parishioners and staff have been working hard to make our enforced move to the air-conditioned undercroft as smooth as possible. Church may not be "normal," but it should be interesting.

Unlike in times past, we actually have many of our liturgical furnishings in the undercroft—altar, flags, candles, torches, etc. To achieve greater intimacy, the altar has been placed along the long wall, so no one seated in the rear need feel terribly far removed from what is going on.

Our choir will sing in the undercroft, but, of course, we will have no organ. What we will have is a piano, harpsichord, and "churchestra," a pick-up collection of St. Paul's musicians who will help us make our joyful noise to the Lord.

Fortunately, we have good sound facilities, and, through the use of numerous microphones, everyone should be able to hear quite well. We will, as usual, record the late service and make these tapes available to shut-ins and others who want to listen to them.

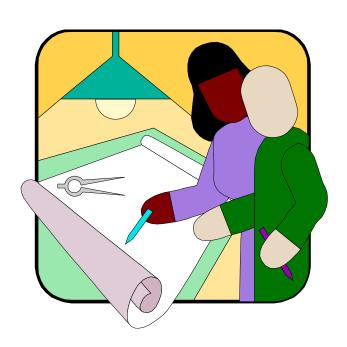
Our first Sunday in the undercroft will likely exhibit a strong element of improvisation, as we learn by experience how best to carry on worship in this new space. Bear with us as acolytes try to find their chairs and readers search for the pulpit. Parishioners who kneel during services may be disconcerted, as our folding chairs to not sport kneelers. Without an altar rail, Communion may seem rather too Roman Catholic for some. Anyone used to summer services in St. Margaret's Garden, however, will likely feel right at home. If you have an idea for doing any of this better, do let us know. But remember that we are conducting worship, not putting on a show.



June 14, 1998

Ready to Get Serious

On Friday, the asbestos contractor completed the removal of floor tile and some pipe insulation. (Any remaining pipe insulation you see is fiberglass.) Barriers and warning signs leading to the Nursery School area are gone. Friday evening, the floors were wet and smelled of a chemical I couldn't recognize, and the only remaining floor covering was in the form of vinyl tile installed during the last renovation. Landau, our contractor, plans to begin demolition in the area Monday. First floor renovation is about to begin in earnest.



High Marks for Undercroft Worship

When Worship Commission met nearly two weeks ago, it seemed that as many details of services in the undercroft were unresolved as were settled. But everything came together last Sunday, and reactions to our first week of being out of the church were quite positive. We seem not only to have achieved a sense of normality, but even experienced an unexpected intimacy.

Although we lacked an organ and communion rail, we used our usual altar, chalices, and the like; we had a procession with flags, torches, and cross; and the choir sang as always. We even recorded the service as usual. (In fact, the tape sounded especially good, as we were able to devote several microphones to picking up sound from the musicians.) The churchestra made a fine debut, and communion moved along quite smoothly.

The seating positioned most people closer to the altar than they are used to being when seated in a pew in the nave or transept, which fostered a sense of community usually associated with smaller churches. Not a bad beginning!

Acoustics

The church is now filled with scaffolding that rises to the tops of the walls at the left and right of the central axis of the room and soars to the peak of the ceiling along the centerline. Planking at various distances from the floor seem suspended in midair. All this mechanism has been erected to cover much of the ceiling with birch plywood, in an effort to create a more reverberant space for the musical sounds of organ, choir, and congregation. The plywood is being installed over existing Celotex panels, which absorb too much sound, rather than reflecting it. The ceiling treatment is being installed over the chancel and crossing, as well as over the balcony and just beyond it. Much of the plywood is now installed, but none of it has been stained. When the wood is stained, we hope the plywood panels will not look much different from the Celotex ones.

Giving a room just the right acoustics is an art. Many of the greatest halls for listening to music were built in an age when no one had any scientific understanding of acoustics, and many

modern concert halls were musical disasters, at least just after they were built. Computer modeling is making the achievement of particular acoustical goals more predictable, but guesswork and intuition still play a part in acoustical consulting.

At St. Paul's, we would like to have a room that provides substantial reverberation for music, a room that would give us the impression of singing along with the organ in a gigantic shower, awash in the warm, rich sounds of voice and organ pipe. Alas, such a room would make sermons and scripture readings quite difficult to understand. We need to make the room livelier, but not too much so. We have talked about painting the ceiling, covering it all with plaster or plywood, covering major parts of it with plaster or plywood, and even applying plywood to alternate ceiling panels throughout the church. We hope that what we are actually doing will achieve the delicate golden compromise that will make music sound glorious and speech sound intelligible. Pray that God smiles on this effort. Scaffolding should be up for three or four weeks.

June 21, 1998

Organ Odyssey

Chuck Little received the following e-mail message from Burton Patterson, who purchased our old organ:

Had a good and safe trip. Drove from Pittsburgh to Springfield on Thursday and dropped the console at a church pew manufacturing company which also refinishes organ consoles. They will make new side jambs and mount the new drawknobs. Also they will refinish the console just a shade darker to match the wood in the chancel area of the church where the organ is going. We are sending them a pew end as a sample for the color.

After dropping the console I drove on to Rolla, MO where I spent the night. On Friday I drove to Martha, OK (home of Cotner Pipe Organ Company) and dropped the rest of the organ. Tom Cotner is a fine organ technician, as is Bob Dial who helped me with the removal. Tom maintains a large number of instruments, including all of the pipe organs at Baylor University. He helped install the 49 ranks of pipes at First Baptist

in El Paso [Patterson's own church]. He has a four man crew who will releather the instrument. I guess you know the pitmans in Opus 8885 were neoprine. They had come to the end of their life.

Currently we plan on installing the console with the electronic voices before Christmas, with the rest of the installation to follow before the summer of 1999.

Thanks for the help in getting the instrument and with its removal.

Also, thanks so much for the pictures [Jane's pictures of the Pentecost work party]. My family has enjoyed seeing them.

Burton



Construction and Demolition

Staff members report that it was a noisy week at St. Paul's. Upstairs, holes were being cut into walls; downstairs, walls were being demolished, and metal door frames were being torn out.

Six holes for the steel beams that are to support the new exposed parts of the organ were cut into the walls just beyond the front arch. The steelwork has been assembled and will be tied into the walls this week. Grout has to be poured into the concrete block walls and allowed to harden, after which holes can be drilled for anchors. The beams are cantilevered, resting on a side wall of the church and extending about three feet into the room in one direction, and extending about eight feet in the other direction to an anchor wall. A steel channel will be bolted to the wall above each beam, as the weight of the organ chests exerts an upward force on the cantilever at the wall.

Another hole was cut this week from the right organ chamber into the transept. A similar

hole will be cut on the other side of the room next week. These tone ports will allow sound from pipes in the organ chambers to travel directly to the ears of the congregation. Formerly, sound only reached the congregation after reflecting from the chancel walls, floor, and ceiling.

All the plywood panels have now been put up on the ceiling, and the architect has approved a color for them to be painted. Painting begins this week. Battens (molding) must also be stained and attached where the plywood panels meet the wall.

Demolition downstairs will continue next week. Among other things, ceiling tiles need to be removed. You may have noticed a Dumpster in the parking lot for construction debris.



June 28, 1998

Sound System

Most parishioners become aware of our sound system only when something goes wrong—when a wireless microphone misbehaves or when a reader with a soft voice cannot be heard in the back of the church. Although we seem to have been plagued by gremlins in the past couple of years, our equipment has generally been adequate. The biggest deficiency of our system has been its inability to record music well. We cannot record in stereo, and, in the recordings we regularly make of services, music sounds distant and indistinct.

Acoustical improvements and the installation of a new organ raise two questions. Will the changed acoustical characteristics of the church require changes to the sound system? Can we upgrade the sound system to allow us to create better recordings, both of regular services and of special concerts?

Every sound person we have talked to has suggested that changes will be necessary to assure that speech remains intelligible throughout the church. New and better speakers—possibly even more powerful amplifiers—may be required, but consensus on the matter has been elusive. After receiving conflicting advice, we have decided not to rely on computer models and expert advice, but to wait until the ceiling work is done and we can hear how the church actually sounds.

For better recording of music, we will need more microphones and the ability to send two channels to a tape recorder. Room acoustics determine optimum microphone characteristics and placement, but we expect to suspend a number of microphones from cables over the chancel and perhaps over the front of the nave.

Because most of the components of our sound system were installed more than a decade ago, it is time to look carefully at our current and anticipated needs. The Vestry has formed a committee to study those needs and to make recommendations. If all goes well, we hope to be able to make an excellent recording of the dedicatory organ recital without having to bring in special equipment.

Ceiling

The plan to panel over only a portion of the east-west ceiling occasioned lingering doubts. When the project began, not all the ceiling was really the same color. It was, after all, put up in two sections twenty years apart, using a material hardly known for its uniformity. In painting the plywood, what part of the ceiling did we want to match? Then there was the question of how obvious and incongruous the transition between ceiling treatments was likely to be. Again, there were nagging concerns.

At the end of last week, we decided to take advantage of the opportunity to apply paneling to the rest of the ceiling at an attractive price, thereby exorcising our aesthetic demons. The room seems not to have been turned into an echo chamber so far, so we do not expect the additional plywood to produce unmanageable acoustics.

Oh, the modified ceiling looks fine—about as it did before.

Nursery School

The heat that has announced summer's arrival after a protracted, cool spring has affected removal of ceiling tiles in the Nursery School. The tiles, which are attached with circular blobs of adhesive, are relatively easy to remove in the early morning hours, but, as the day heats up, the glue gets sticky, and pulling the tiles off the ceiling gets harder. Most of the tile and light fixtures have been removed, but some remain.

On the whole, however, construction is going well. All the plumbing fixtures have been disconnected, and there are orange lines on the floor where plumbers will begin cutting trenches for new fixtures this week. The organ blower has been removed—Mr. Patterson did not want such a huge blower—and new electric wires and junction boxes can be seen everywhere. Some of the new wiring disappears into the duct that used to carry pressurized air up two floors to the organ. It was another noisy week, as walls are still being removed.

July 5, 1998

Revelation

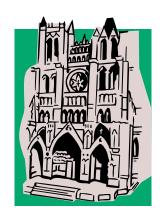
I have often wondered why there is a shelf at the back of the balcony below the stained glass window, although I never thought deeply about it. You may not have noticed the shelf, but you may have seen the rood beam that rested on it for many years after the beam was removed from the chancel. Installation of the steelwork for the antiphonal organ has now made it clear why that shelf exists.

Recall that the antiphonal organ is to be hung on the wall at the rear of the balcony. Plans call for a steel frame to be attached to the wall and supported from below by three angled beams. Actually, the attachment is to be made to the wall below the shelf. This inner wall ends a couple of feet above the old balcony floor and is capped by the shelf, which is about 18 inches wide.

Removing the shelf reveals why the church was built as it was and presents us with a bit of a problem. Whereas the great Gothic cathedrals were built with portals that projected out from

the west façade, the entrance to St. Paul's is more modest. The exterior wall facing Washington Road is essentially flat. The series of receding arches over the main door extend into the building proper, so that the rear wall of the narthex is a wall built inside and separated from the exterior stone wall. It is this wall that extends upward into the balcony, ending below the wooden shelf. When the shelf is removed, you can see these outer and inner walls, as well as the rising arch between them.

The inner wall has no structural function and is clearly unsuitable for attaching the organ. A structural engineer will need to tell us how the organ can be hung, but the solution will no doubt involve tying its support structure into the outer wall. For now, work on this part of the project is on hold.



Progress Report

Work on the church ceiling is nearly complete. It should be done by Monday, and the scaffolding should be down by Wednesday. Early indications are that the plywood on the ceiling has had the desired effect of increasing reverberation, but, by the end of the week, we should have a better sense of what we have actually done. The plywood panels, by the way, were attached to the ceiling using compressed air nail guns. Painting was done with rollers.

Elsewhere in the church, both tone ports for the organ have been cut, and the radiators at the back of the balcony have been removed. It is unlikely the radiators ever served a useful purpose, and they are unlikely to be missed.

Much of the work in the Nursery School is still demolition. Nearly all the ceiling tile to be removed is gone, and more walls have been knocked down. For example, the wall between the women's room and a janitor's closet has been removed, exposing an electrical panel and conduits. The two classrooms next to the chapel

have become one, and part of the ceiling has been removed. This allows us to see something of how the education wing is constructed. The floor above is concrete, resting on I-beams. Small channels run perpendicular to the I-beams and support the drop ceiling.

Workmen have been slowly chipping away at the wall of rest room across from the elevator equipment room. The wall is concrete block, but much of the space within the blocks is filled with concrete, making the wall difficult to remove. A new wall is to be built is a slightly different location, and the room will become an art room.

The contractor is still waiting for new door frames for the Nursery School. The cuts in the floor for plumbing have been rescheduled for

> this week, having been delayed by a broken saw. The electricians have been busy, however, and new cables and junction boxes are visible in various places. A new electrical panel

can be seen in the boiler room off the big room.

July 12, 1998

Fixes

Renovation has a way of uncovering surprises, such as the back wall problem of last week. Another such problem surfaced a few days ago.

Do you remember the wall being removed across from the elevator equipment room on the ground floor? Well, it turns out that an I-beam that was not on the blueprints was being supported by a corner of that wall. Because the corner is being moved back about three feet, it is necessary to reinforce the shortened wall and to replace the beam spanning the corridor with a slightly longer piece of steel. Of course, swapping out structural members is an operation that must be done with some care.

The fix decided upon for the back wall is to pour concrete between the two walls such that the load of the organ will be borne by the arch of the doorway. At the top of the inner wall, a steel channel will tie the two walls together. The top course of the inner wall will also be strengthened.

Tone Ports

The other day, I was paging through several booklets obtained for the use of the organ committee. One of these, Planning Space for Pipe Organs: An Architect's Guide, contains a twopage spread of diagrams labeled "Siting Organs in Typical Buildings." One of the diagrams shows, almost exactly, the floor plan of St. Paul's and the location of our old organ. The label on this diagram reads "Poor Locations." That label should not be surprising. If you were installing an expensive new stereo system for your living room, would you really locate the speakers in different rooms, leaving the doors open to the living room? Probably not, yet that was essentially how our old organ was installed. The pipes were in two chambers on either side of the chancel, with the sound directed not toward the congregation, but into a separate space with a sound-absorbing ceiling. (Ironically, the choir did not hear the organ well either.)

The new organ installation attempts to correct the deficiencies of the old one. Many of the

organ pipes will be in plain view near the centerline of the church and mounted against walls that will reflect the sound toward the main seating area. Most of the sound-absorbing material on the ceiling has now been covered with more reflective plywood. The organ chambers will still be used by the swell division, however, as well as some pipes from other divisions of the organ. The coupling of the sound from these chambers into the church proper should be enhanced by the new ceiling treatment. Addition-



ally, tone ports have been cut into the side walls of the chambers, so that sound can reach listeners more directly. These holes in the transept

walls are openings of perhaps 20 square feet. They will be covered by screens that match those of the main chamber openings.

The tone ports need to be more than simple holes in the walls, however. Pipes of the swell organ are under expression, so that their sound

can be made softer or louder. This volume control is accomplished through the use of swell shades, which look like large Venetian blinds. They are operated by a pedal from the console. The tone ports complicate this arrangement, since swell shades at the front of the organ chambers would not be very effective if the sound could escape unimpeded through the tone ports at the side. It will therefore be necessary to install secondary swell shades in the tone ports. All four sets of shades will work together. The shades in the left tone port are more complicated still, as not all the pipes in that chamber are under expression; some need to speak with their full voice at all times. Apparently, the organ builder has a scheme that will allow this to happen, while still keeping other pipes under full expression.

It is becoming easier to get an idea of the church's new acoustics, as all the scaffolding has now been removed. The floor is still covered with particleboard, plastic, and sawdust.

Other Matters

Demolition continued this past week, but construction will be given increasing attention in the weeks ahead. The door frames for the Nursery School arrived, and their installation will begin in a couple of days. The trenching for plumbing has been completed. Pipes for sinks and toilets will soon be installed. Steady progress continues to be made on the electrical work.

Representatives from Schantz Organ Company visited St. Paul's and pronounced the steelwork at the front of the church to be satisfactory. They will not return until the steel to support the antiphonal organ is also in place. Now that a scheme for supporting it has been approved, this part of the project can proceed.



July 19, 1998

Testing

After the 9:45 service last week, Dr. Starr and about a dozen choir member went upstairs to test the acoustics of the church. Hymnals in hand, most of the group stood in the chancel and sang "Lo, how a Rose e're blooming." The other choir members listened from the back of the church. A few moved about to hear the sound from different places. After one verse, the listeners asked for a repeat performance at a softer volume. The singers obliged.

The informal conclusions from this unscientific test are that (1) the ceiling looks fine, but no different, (2) singers can hear one another better, and (3) music sounds better in the nave. Two comments from the listeners were especially encouraging. One person said that the sound seems much more uniform than formerly, suggesting that "dead spots" may have been eliminated. Another said that highs and lows are more prominent than before, giving the music a more vibrant sound. The sound may improve even more once the church is cleaned.

Steel

The steelwork for the antiphonal organ is now in place. Forms were placed between the two back walls, and three columns of concrete were poured into the forms. The new concrete is behind each of the three braces that support the steelwork from below. The steel structure is bolted to the inner wall, and its members are welded and bolted together. One additional weld will be made next week, which will complete the support for the rear wind chests and pipes. The steel takes up a substantial amount of space in the balcony, being about 15 feet wide.

Representatives of Schantz Organ Company will again visit St. Paul's this week to take field measurements.

The steel door frames that can be seen on the chancel floor, by the way, are to be installed in the organ chambers. Apparently, additional walls will be built in there.

Shaping Up

The overall plan for the Nursery School is becoming more apparent. Many new door frames have been set, and old doorways have been blocked up. Concrete has been poured over the trenches that had been cut into the floor for plumbing. New walls—or at least the framing for new walls—are beginning to appear. Although demolition (and the racket that goes with it) is still going on, smooth surfaces can finally be found. The ceiling in the Director's office, for example, has received a coat of plaster. (It will be finished somewhat like the undercroft ceiling, with areas of painted plaster, tile, and stained wood molding.) There are new bulkheads in the Big Room. Shining electrical boxes and conduit are everywhere.



The classroom (formerly two classrooms) nearest the chapel seems to lose more of its ceiling each week. The plumbers need to reroute some of the pipes here, so a

ceiling of uniform height can be constructed.

July 26, 1998

Mostly Downstairs

There was some construction activity in the church this past week, but not much. We are waiting on the organ builder to verify the adequacy of what has been done and to clarify the exact location of walls and organ components. We are also awaiting acquisition of quarry tile to match the tile in the chancel. Finding matching tile has proven more difficult than we anticipated.

Progress is evident downstairs, though it is incremental and distributed. I am told that about 90% of the plumbing rough-in and 80% of the electrical rough-in is complete. Pipes are in place for the sinks that will be in every classroom, and there are no more open trenches in the floor. Old piping is still visible where toilets and other fixtures have been removed or where the surrounding wall has been demolished.

In the coming week, the contractor will be patching around electrical boxes and over conduit for which holes and channels had to be cut into the concrete block walls. (Cutting these

holes was a major source of noise in the building.) This will make the area seem a bit neater, but not much. Each week, the hallway ceiling seems to become less substantial, as more holes are cut into it for plumbing and electrical work. There is a good deal of exposed pipes and cables, including telephone cable that drapes down along one hallway wall.

Three plasterers were on the job most of last week, and their work shows. Several ceilings are now ready for the application of tile, and the storage area at the end of the Big Room is taking shape. Of most interest, perhaps, is new wall between the classrooms nearest the elevator. A niche in each room will contain a wardrobe and sink.

All the new door jambs are in place in the Nursery School area, and those that are not permanently attached to walls will be blocked in presently. You may notice that the classroom doors have transoms above them that will hold three panes of glass. This will allow more light into the classrooms. The light will be especially helpful in the rooms with window wells.

"Fire"

The other day, I heard a story that illustrates how things can go wrong on a construction project. Fortunately, the story has a happy ending.

A few weeks ago, Assistant Sexton Ed Posa noticed that a drain valve on the boiler was leaking onto the boiler room floor. He did not know why this was so, but assumed—correctly, as it turned out—that the contractor had something to do with it. A few minutes later, around 6:30 PM, the fire alarm sounded. Ed made a quick tour of the building, trying to pinpoint the source of the problem. No fire was evident, but he told the groups that were meeting at St. Paul's at the time that they would have to evacuate.

Then the Mt. Lebanon Fire Department arrived. The firefighters could find no problem immediately, but they determined that the alarm system indicated a problem in zone 6, which includes the narthex. Ed had noticed some dripping water there during his search of the building, but he had not investigated it further. The firefighters, however, determined that water leaking from the balcony had entered the ceil-

ing-mounted fire sensor and shorted it out—no fire, just water. They shut off a valve and left.

There used to be several radiators at the back of the church balcony. Because heat rises, these radiators were not likely very useful, and they were slated to be removed to make room for the antiphonal organ. On the day of the fire alarm, the contractor had removed the radiators. The person who should have capped the pipes, however, had not reported to the job site that day. The contractor left the pipes uncapped and opened the drain valve on the boiler to keep water from reaching the open pipes. The heating system uses circulating hot water. No water is circulated in the summer, but the system is designed the keep the pipes filled. Opening the value was intended to keep that from happening.

Apparently, the open valve did not do its job. The water pump put enough water into the system to push water out the open pipes, which then flowed through the floor to short out the fire sensor on the ceiling. Fortunately, no significant damage was done.

August 2, 1998

Drips

One problem being addressed downstairs is water leakage through below-grade walls. Waterproofing the outside of a wall best solves such problems, but it is often impractical. The classroom below the Rector's office, for example, has a troublesome wall whose outer surface is beneath the building. Leaks in this wall have been plugged by injecting a material that flows through cracks, then hardens. Any water that does reach the inner surface will travel down to a drain area at wall's base. A new classroom wall is being built a few inches inside the leaky wall.

Another water leak was just discovered in a bathroom outside the Nursery School Director's office. Water has been entering an electrical cabinet through a conduit. The huge cables in this conduit are unused now, but they must once have been a main electrical feed for the building. A group of workers was unable to remove these cables by pulling on an attached rope. Expert help is to be enlisted for the removal.

More Room for Parents

I spoke to Nursery School Director Jane Adams the other day about Nursery School renovations. Why, I wondered, was art room space being sacrificed for a wider hallway. Stepping inside the art room—it looks like a room now—reveals it to be rather claustrophobic. Jane explained that size of the room is not really a problem, as the room is more for storage of art supplies than for art production. The wider hallway is intended to reduce congestion in an area where parents often enter the school.

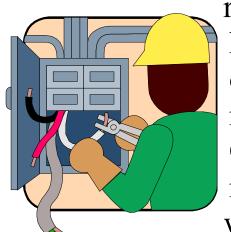
Both parents and staff will benefit from another change,

the addition of a second school office. I was surprised to learn that the Director's office has provided administrative space for several staff members, not just the Director. This arrangement made private meetings with parents difficult. The new office, carved out of a bathroom and a closet, will make it easier for people to do their jobs without getting in one another's way.

Construction Report

A quarry tile has been approved for covering the areas of the chancel that were formerly under risers. The plant that made the original tile is no longer in production, and the new tile represents a good, though not perfect, match.

All the plumbing and most of the electrical



rough-in is done. Plasterers have been hard at work, even on Saturday, and some walls may be painted next week. Classroom cabinets and ceiling molding should arrive next week.

In the classroom nearest the chapel, a good deal of overhead plumbing has been reworked to allow a uniform height ceiling in what used to be two rooms. Bulkheads will be built at the edges of the ceiling.

Wall framing is up in the organ chambers, and door frames are in place. Both tone ports are fully framed, though the plaster around the wood and steel has not been patched.

Organ

Eric Gastier, Staff Architect of Schantz Organ Company, visited St. Paul's last Wednesday. His main task was to take measurements. Recall that an organ such as ours is built for a particular room, and it is Eric's job to assure that the instrument fits where it is supposed to go. The organ will be built at the Schantz plant, tested, disassembled, shipped to Pittsburgh, and reassembled at St. Paul's.

Schantz's production is running about a week behind schedule, so the organ will not arrive until the beginning of October, about the same time as the new Rector. (This should be a very exciting time!) The organ will be installed, then voiced, a process that will continue into November or even December. Voicing should be thought of as the last manufacturing step for an organ. The voicer's job is to assure that the instrument is in tune, that pipes have the proper sound character, and that individual ranks of pipes maintain a given character from one pipe (note) to the next. The voicer actually modifies

the geometry of pipes—bending here, cutting there—to achieve his results.

The gallery organ will be voiced first. This will allow us to begin using the console and pipes in the balcony before the entire organ is ready for use. As more of the main organ is voiced, the choir can move to the front of the church, and we will use as much of the new organ is as playable.

The church is now messy and dirty. The contractor will be finishing his work there this month and cleaning up. We are planning work parties on August 23 and 30 to replace pews and chancel furnishings. Services in the church will resume on September 6. It therefore seems that we will be holding services in the church for about two months before any sort of organ is available. For much of that time, the room will seem rather unfinished because of its empty organ chambers and exposed steelwork. In fact, we will not even reinstall the rail at the high altar until the organ is in. Workers will need ready access to the area on either side of the altar where wind chests and pipes are to be built.

August 9, 1998

Color

Preschool décor is often colorful. Presumably, white walls and ceilings are not stimulating to children and do not contribute to getting them to focus on the world outside themselves. A few months ago, the walls of the Nursery School were covered with blue skies and clouds, ab-

stract patters, and childlike drawings. A new décor, however is becoming evident through the chaos of construction.

Now that much of the plastering is done, workers have begun



installing cabinets in the classrooms. These laminate-clad units will house the sinks that will be installed in each classroom. They also provide drawers and larger storage areas accessible behind doors. I neglected to inquire as to the names of the colors of the cabinetry, but perhaps the colors are best described as muted blue,

muted yellow, and muted purple. The colors are definitely *not* primary colors. Although the ceiling molding is not yet installed in the classrooms, last week much of it was being painted in the church. The colors of the molding match those of the cabinets, and the colors will be mixed and matched from classroom to classroom. Some of the ceiling molding has been installed in the Director's office.

The old wall paint as been something of a problem, and it was decided that it had to be removed. Most of it has been scraped off, though a few additional areas will have to be scraped in the coming week.



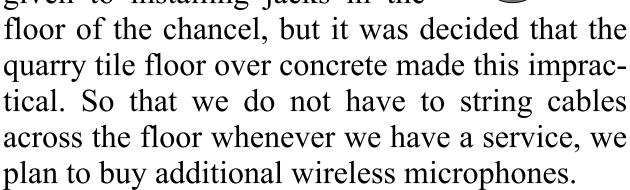
Although most walls are ready for paint, the plasters are not quite done. On Friday, they were working on the classroom below the Rector's office. Next week, they will take on the classroom next the chapel, which finally has a level ceiling, a niche for sink and cabinets, and completed bulkheads.

Upstairs

Unlike the Nursery School area, the church has not been crowded with construction workers of late. Nonetheless, there has been some work done, with more to come.

Additional wiring has been installed at both the front and back of the church for the organ. A hole has been cut in the wood floor behind the

usual location of the altar, and conduit sticks out from the rough-cut opening. This is where there will be a receptacle—one of several—for the organ console. Wiring is also being installed for microphone jacks in the walls along the side of the chancel. Thought was given to installing jacks in the



August 16, 1998

Walkthrough

When I drove up to St. Paul's for my weekly inspection tour, a pickup truck was backed up to the front door. Cleanup was in progress in the nave, and plastic that had covered the floor was being tossed into the truck.

In fact, workers seemed to be everywhere. I found several in the church—in the nave, chancel, and balcony. Walking around downstairs meant threading my way through a crowd. An electrician and a couple of other workers were in the hallway. Three men were applying ce-

ramic tile in the bathroom. Two painters were working in the classroom across from the chapel, one applying paint to the wall with a roller and the other using a brush to paint around the

windows. In a storage room, two plasters were applying compound over concrete block.

On Saturday morning, most (but not all) of the workers were gone, and much progress had been made in the preceding 24 hours. Here is a list of things to look for—

New quarry tile has been laid in the chancel, though the tiles with mounting holes for the old chancel furnishings have not been replaced. The match to the old tile is actually pretty good.

Some of the new wiring for microphones is evident, but the wall paneling has not yet been patched. (Recall that the paneling formerly extended only to the choir risers and not to the floor.) Most of the nave has been cleaned up, and the floor is again visible. In the balcony, you can see the conduit that will carry cables between the organ console and the

wind chests.

Much of the Nursery School ceiling tile has been installed in the classrooms and hallway. More of the molding that frames the tile areas is also in place, including some that introduces another accent color, muted green this time. The tile in the hall bathroom is perhaps 60% complete and is quite attractive—4" white tiles with

occasional accent color tiles. (Samples of the colors being used in the Nursery School are displayed on an easel in the undercroft.)

The contractor brought in the heavy-duty tools to deal with the old electrical service entrance that was allowing water to enter the building. You may notice freshly disturbed soil

outside the Mayfair entrance. An attempt was made to excavate to the underground conduit and remove it from the outside of the building. This strategy did not prove practical, however. Instead, a jackhammer was used from inside to break up the wall around the conduit and to allow the thick cables to be severed. Conduit had to be removed from

the floor as well. Places on the wall and floor of the bathroom under the Mayfair entrance where the electrical cabinet and conduits used to be are now covered by smooth concrete.

August 23, 1998

Putting the Church Back Together

As the construction in the church winds down, we have scheduled a work session next week after the late service to begin replacing the pews in the nave and otherwise returning our worship space to normal.

This week, the plasterers were at work in the organ chambers finishing the walls that were framed some time ago. They have also been patching the south-facing wall, which has suffered water damage over the years. This wall has proven quite troublesome. Water damage has been blamed on roofing, flashing, gutters, and, most recently, on pointing. We think all sources of trouble have now been addressed, and we are repairing the wall in the hope that the repair is permanent. This work should be completed in a few days.

Services may not resume in the church immediately, as the whole room needs to be thoroughly cleaned before that takes place. The church should be back in use sometime in September, however.

Home Stretch

The Nursery School is still a bit of a mess, but construction is entering its final stages. Most of what is going on now can be described as installation and painting. Whatever remaining work the plasterers have to do should be done this week.

Many individual rooms, including most of the classrooms, have both floor and ceiling tile. Although the pattern of the floor tile in each classroom is essentially the same, the colors, like the colors of the cabinets, differ from room to room. No tile has yet been installed in the hallways or the Big Room. Installation of the ceramic tile is the bathroom, however, has been completed.

The kitchen cabinets have been installed, as have countertops throughout the area. There are also new cabinets in the art room. Cabinets will soon be installed in the Big Room along the wall that faces the education wing. The Nursery School should have no shortage of storage space when the construction project is over.

This past Saturday, workmen were beginning to install decorative wood molding around the metal door frames in the main hallway. The molding greatly enhances the finished appearance of the hallway. Doors for the project are scheduled to be shipped this week. (The lead time on door delivery is several months!) Most of the doors we are waiting for will be installed in the Nursery School, though several doors are for the organ chambers.

There are still long strips of wood trim in the chancel, which has been used as a convenient area for painting. The molding will soon be installed downstairs, and the chancel can be returned to more sacred functions.

One more note on the church—before pews are replaced, we are refinishing the floor. This is

a do-it-yourself project largely being handled by Head Sexton Vladimir Ivashchenko and Assistant Sexton Alex Andreyev. The floor of the nave has been stripped and should be varnished before next Sunday's work party.

August 30, 1998

A Talk with Jane Adams

As the Nursery School construction nears completion, it seemed a good time to talk to school director Jane Adams about the school's future in its renovated quarters. I found her in Kirsten Butterfield's office, which she has been using while her own is unavailable. The room was crowded—mostly, it seemed, with Nursery School paraphernalia.

It was Friday, and workers were everywhere downstairs laying floor tile, painting, and moving cabinets. Because the place did not look ready for habitation, I was surprised to learn that the Nursery School plans to begin moving in on Monday. That is when all the Nursery School

furniture and equipment arrives back at St. Paul's from storage. Between August 31 and the start of school—a week later than usual, on September 16—Jane, her teachers, and Board Member volunteers will

somehow put the school back together, accompanied, no doubt, by workers applying finishing

touches. Jane put the job in perspective by reporting that mover Mike Gardner remarked that moving the Nursery School was the equivalent of moving a 30-room house!

The contractor really does intend largely to be finished downstairs by August 31. Workers were planning to be on the job Friday night and Saturday. By Sunday morning, except for doors



and lighting fixtures, the Nursery School portion of the building project should be done. Doors were to be shipped on Friday. There has been some problem with the lighting fixtures, so the permanent fixtures may or may not be in place for the fall open-

ing of school. I was assured that *some* lighting fixtures will be in place, even if only temporary ones.

Although the finished product was not yet visible, Jane was clearly pleased. Not only does she like what she can see, but she also admits that the best surprise is that the work is being completed on time. Much of the credit for this

she gives Jim Wilbur, who has managed the project for St. Paul's. Nursery School communications with Jim's Building Committee and with the Vestry have been excellent.

Jane had a list of things she is expecting to enjoy in the next few weeks. At the top of her list is a sparkling clean facility. The school had never undergone a major renovation, of course, and it had become quite hard to clean and keep clean. As a result, it has not always made a good first impression on parents. Jane also expects the lighting to make a big difference. And water. Having sinks in every classroom she described as being "like a miracle." The lines of kids

waiting to wash up should be shorter in the future.

Parents, Jane thinks, will be reassured by the renewed school. It will inspire a greater sense of safety and security than formerly. It should also provide better traffic flow when children are being dropped off or picked up, as well as facilitate conferences between parents and staff.

I was surprised at what Jane thought the children would like best. It was the bathroom! The bathroom is very attractive, of course, with its bright tile walls, but it is the scale of the place that Jane thinks will make a difference. The adult-sized stalls were scary to some children. Now both the toilets and sinks are the right size and in the proper place for little ones.

Teachers used to have to put up with many inconveniences, Jane admitted. The new school will be a more pleasant place to work because of the lighting, the sinks, the new paint, and so forth. The abundance of cabinets will also help a lot, particularly because teachers share classrooms with each other and with St. Paul's Sunday School teachers. And yes, Sunday School teachers and their students are going to like their new rooms, too. Various groups that meet at St. Paul's sometimes use Nursery School space, particularly the Big Room. The renovation provides both attractiveness and increased flexibility in the use of this portion of the building.

I asked Jane what she most wanted that she did not get. She replied that she would have

liked to have put the infant and toddler rooms adjacent to one another. Such an arrangement would have offered convenience and flexibility, but the tens of thousands of dollars it would have cost was hard to justify.

It was clear, however, that Jane has no regrets. She was stumped when I asked her about disappointments. She sees a period of hard work and some chaos ahead—"change is interesting," she remarked—but she sees the children and staff about to embark on a very rewarding adventure in their new school home.



September 6, 1998

Putting the Church Back Together

Last Sunday, after the 9:45 service, a work party began moving pews and cleaning woodwork. The nave floor had been refinished, and pews were cleaned and returned to the nave. Pews could not be fastened to the floor because scaffolding needed to be move about to perform some important remaining tasks—cleaning the tops of beams, dusting lanterns and painting the wall on which water damage had been repaired. These tasks should be completed in the coming week.

Because the Nursery School must be finished as quickly as possible, work in the church has proceeded slowly. Next week, however, the chancel floor will be finished. Tiles with holes for holding the old chancel furniture will be replaced. Anchors placed in grout need to be removed and the grout repaired, as well.

Other jobs in the church will be done later. There are no pews in the balcony yet, and the balcony woodwork and floor need to be refinished, for example.

Moving In and Finishing Up

Movers arrived on schedule last week with Nursery School equipment and supplies. Construction was by no means complete, but Jane Adams reports that movers and construction workers did a good job of staying out of one another's way. For practical reasons, unpacking was postponed until next week, so boxes and furniture are now piled in the middle of the Big Room and elsewhere.

By week's end, all the floor tile had been laid and all the plumbing completed. Electrical work is complete except for the installation of lighting fixtures, only some of which have been received. Doors arrived and have been hung, though they need to be finished and glazed. Cabinets and trim are still being installed, and some painting needs to be finished.

Despite the lack of a few finishing touches and the presence of a good deal of sawdust, a walk through the Nursery School area can provide a good sense of what it will look like when school opens in less than two weeks.

What is particularly striking, I think, is that there is a lot of storage space. The Big Room has a row of small cabinets on the north wall and a row of tall cabinets on the south wall. Behind the doors on the east wall is a large storage area with wide shelves. There is an area with more wide shelves in the part of the room nearest the parking lot. More cabinets can be found in the art room and elsewhere. And, of course, each of the classrooms has a sink and counter surrounded by cabinets and drawers.

Another impression is that the main corridor seems larger, or at least cheerier. In the past, it seemed dark and gloomy. Since the size of the space has not changed, the impression is likely the product of light colors on the walls, ceiling, and floor, and the increased ability of sunlight to reach the corridor through the doors (Dutch doors, by the way) and transoms.

Take a tour yourself and develop your own impressions. Or wait for a bit and see the new Nursery School in all its glory.

A final note: 4-year-old Will Banse, son of our new Rector will be a student this year.

September 13, 1998

Not Quite Yet

Despite Fr. Randolph's announcement that September 14 services would be held in the church, we find ourselves in the undercroft for at least another week. September 20 services almost certainly *will* be upstairs, however.

The church still needs painting and cleaning in places, but many jobs are done or nearly so. Most pews and kneelers have been screwed back into place. Damaged tiles have been replaced in the chancel. Chancel paneling and flooring have been installed (though not yet stained). Much of the remaining work to be done is in the organ chambers and in the balcony—hanging doors, staining woodwork, fitting pews to new locations, and the like.

A number of people have commented on the unfinished appearance of the tone ports. These new features of the church require custom fittings not made in Pittsburgh. The aluminum grills are now up (but not painted). These were made from a pattern traced from the grills of the old organ chambers. Wood molding to match

the framing elements of the organ chambers have not yet arrived.

Because the church piano is in need of repair, a rental instrument is to be delivered this week to accompany services until a sufficient portion of the organ is playable. Of course, the Chuchestra will also move upstairs.

The choir retreat was held on Saturday in the undercroft due to the lack of a suitable piano upstairs. At the end of the workshop, Dr. Starr

led the choir to the chancel to sing an unaccompanied anthem as another test of the altered acoustics. As with the more modest experiment of a few weeks ago, listeners and singers were pleased, and the choir is eager to return to the church to sing.



Ready or Not

The Nursery School construction is nearly at an end. Cabinets are installed and doors are finished and glazed. The one obvious problem is that many light fixtures still need to be installed. We expect the remaining fixtures to be received soon, but there *are* temporary fixtures in place, so children and teachers do not have to work in the dark.

Nursery School staff and volunteers have been busy unpacking boxes, setting up class-rooms, and putting materials away. Director Jane Adams described this process as "making it up as we go along," since room configurations and storage areas are all new. Despite the magnitude of the task, she says the work is exciting and fun. "We're enjoying having room to put our stuff away," she told me.

St. Paul's Episcopal Nursery School reopens on Wednesday, September 16.

September 20, 1998

Back in Church

On Sunday, September 14, 1998, services return to the church. Not everything we would like done has been done, and there is some uncertainty about the mechanics of operating in our altered chancel. It is time for a homecoming, however.

First, a status report: The choir pews from the chancel have been reconfigured to provide seating in the balcony. (The old pews were ugly and uncomfortable, and they weren't the right size to be placed around the gallery organ console either.) The arrangement is pleasing visually, though the leg room may remind you of the cheap seats in a big auditorium. The front of the balcony has been refinished with a dark stain; it was not possible to lighten the color to match the rest of the woodwork inside the church. Some future project will have to take on that task and the task of tying the narthex décor into that of the church proper. The organ casework, both at the front and back of the church, will be light in color.

All the organ chamber grills have been replaced for now, save one. I could find no one with an explanation for why the final grill was not installed. The grills on the new tone ports are still unpainted, and the wood frames have not yet been delivered.

All the new chancel paneling and flooring is in place, but none of it has been stained. Finishing will presumably be done next week. Although wire for microphones has been run from the ambulatory to the chancel, no outlets have been installed, so our ability to use microphones other than those on the pulpit and altar or the wireless microphones is temporarily limited.

Until sometime next month, prominent features of the church will be the steelwork (and wiring) front and back that will support the exposed organ pipes. Admittedly, this isn't very decorative now, but it portends future enhancements.

Last Wednesday, the choir had its first regular rehearsal after the summer break. The choir sang in the chancel on our existing cathedral chairs and with a rented baby grand piano that

we will use until the organ becomes available. Rehearsal was hot—real fall weather has not yet arrived—and noisy—the ceiling fans were running full tilt. Alas, only rumble, not breeze, could be felt at floor level. (The undercroft air conditioning may be missed on Sunday.) Anyway, rehearsal went well. Singers on either side of the chancel could hear one another quite well, and final fortissimo chords were followed by an obvious and satisfying echo.

I stopped by church Thursday night to check construction progress. At the back of the nave was someone using a large vacuum cleaner. The person, whom I approached carefully, as I didn't want to scare whoever it was out of his wits, was not a sexton, but construction committee chairman Jim Wilbur performing some pre-return-to-the-church cleanup. Jim has had a big job overseeing construction, of course, but I suspect most parishioners don't realize just how much sweat equity he has personally invested in this project.

On Saturday morning, Jim, Fr. Randolph, Altar Guild, and a host of volunteers prepared

for Sunday services. Mike Gardner was there again with his moving truck and equipment that facilitated the move of the altar, communion rail, and other furnishings. Prayer books and hymnals needed to be placed in pews, chairs had to be set up for the choir, readers, and so forth, and much cleaning had to be done. Microphones were installed, light bulbs were changed, and spotlights were aimed.

Of course, our first Sunday back in the church will be something of an adventure. The chancel will be more crowded than "normal" (or what will become normal) because of the presence of the churchestra and piano, which is larger than our organ console. Thus, it may be premature to evaluate the arrangements in the chancel. Look for at least two things, though: Notice the cross above the high altar, which Altar Guild had re-lacquered. And listen for the changed acoustics. Can you hear the choir better? Can you hear one another better when singing hymns? Can you hear the preacher and celebrant well? We hope so, but we need feedback. Do let us know.

Nursery School Begins

The Nursery School began its fall session on Wednesday. Jane Adams admitted that staff and volunteers worked until 11 PM Tuesday night to get ready, but ready they were. "Unpacking was fun," she said. "Tiring, but fun.

In addition to a long list of minor items the contractor needs to take care of, fixtures in the Big Room and hallways need to be installed. Temporary fixtures will continue to provide light in the meantime. Light fixtures for the classrooms did arrive and were installed. The energy-efficient fluorescent fixtures are beautiful and perfectly complement the other classroom elements. The classroom décor is very attractive and soothing. And, as Jane remarked, "People who work with children need to be soothed."



September 27, 1998

Organ Factory

At 8:30 AM Saturday, a dozen people met in the parking lot to arrange carpooling for a trip to the Schantz organ plant in Orville, Ohio. After a 2½-hour trip, we arrived at Schantz and were met in the office by Tim Mann, whom many of us had met at least once at St. Paul's. The previous weekend, Schantz had held its annual community open house. It had been suggested that, although we were free to attend the public event, we might prefer a private tour. This was a good idea, as it turned out. Tim was an excellent guide, and no one expressed dismay at not being able to rub elbows with the 1000 people who walked through the facility the week before. Although work on other organs is being completed or begun, the St. Paul's organ is the primary project Schantz has been working on for the past couple of weeks. Thus, the instrument both the St. Paul's group and the guests the week before saw most of was ours

I should probably avoid unnecessary suspense and tell you straight out that everyone was

impressed—both with our organ builder and with our organ. We are, I think, getting a quality instrument with many of the bells and whistles (figurative ones, that is) I had feared we would not be able to afford.

Our 65-rank organ (a rank is a matched set of, usually, 61 pipes), was described as a mid-sized project for Schantz. Schantz has worked on much larger organs, but most of the ones it builds or enhances seem to be smaller and less complex. Besides the universal problem of how to deliver the most instrument for the least cost, our organ seems to have presented at least two major design problems: how to fit all the pipes into the space available, and how to get maximum flexibility in the use of the two consoles.

As we walked from one area of the plant to another, it became clear that we are putting a lot of organ into limited space. The gallery organ and the main console, for example, seemed much larger than I imagined they would be. The real trick, however, is fitting all the pipes into our modest-sized organ chambers that flank the chancel. Here Schantz has resorted to a number

of space-saving techniques, such as mounting certain large pipes horizontally, one atop another, and using stopped pipes that need be only half the length of normal pipes. I came away thinking that, even had we been inclined and able to buy a larger instrument, we might have been hard-pressed to install it comfortably in our worship space.

The console problem is an interesting one. The main console will sit in the chancel, of course, and will control all pipes in both the front and back of the church. We sometimes place the choir (or part of it) in the gallery, an arrangement that can produce a beautiful musical sound. When we do so, it would be helpful to be able to play at least the gallery organ from a local console. (Choir members can tell you horror stories of trying to co-ordinate their singing with the playing and directing of an organist at the other end of the building!) Once we decided to place a small console in the rear to control the gallery organ, other issues presented themselves. What if the choir sings an entire service from the rear? Can hymns be adequately

accompanied by the 12-rank organ there? If a prelude is sung from the rear, will the organist have to run to the front of the church to play the processional? In response to such questions, Schantz worked out a mechanism that allows the entire instrument to be played from either console, though this requires some advance preparation at the main playing position. Surprisingly, the company had never been asked to do this before, but Schantz was eager to iron out the details for our installation, as they need to implement a similar solution in an organ they are enlarging in Melborne, Australia. (Curiously, the Melborne organ will be Schantz's first foreign installation.)

Our tour took us on a circuitous journey through the trim complex of brick buildings that have grown up around the original 1901 plant. We visited the voicing rooms, the pipe shop, the blower shop, the loading deck, the woodworking and varnishing shops, the wood pipe shop, the casework and console shops, the old and new assembly rooms, and the engineering offices. Nearly everywhere, we saw our organ un-

der construction. In one of the voicing rooms, we actually heard some of its pipes speak. Elsewhere we saw some of the larger metal and wood pipes, though many ranks of pipes were merely stacks of oddly shaped metal sheets accompanied by a brief description and "Mount Lebanon" printed on a slip of white paper.

For me, the tour highlights were seeing the two consoles—the gallery console is nearing completion, but the main console is only a decorative shell—and seeing the gallery casework, much of which was set up in the assembly room. I was impressed by Schantz's woodworking ability. I think we will achieve the ideal of installing an organ that will seem as though it has always been there. And I was impressed by the builder's attention to detail and concern with maintainability, which was especially evident in the console construction.

At the end of our tour, we thanked Tim and adjourned to Das Dutch Kitchen for a late lunch. We exchanged impressions over a generous Amish-country lunch, took leave of one another, and left for home.

October 4, 1998

Lights

A couple of items relating to lighting fixtures deserve mention. First, permanent fixtures were finally installed in the Big Room. What you will notice this week is that the place is well illuminated and cheery, rather than a bit dreary in spite of the renovations. The hallway still has temporary lighting; the new fixtures are coming from a different manufacturer than the one that supplied the Big Room lighting.

Speaking of dreary, there were a number of complaints last week that the lighting in church was inadequate. Investigating the matter, we discovered that one altar spotlight had been removed for replacement, and a number of other spotlights were not aimed where they should have been, presumably because the contractor, in working near the ceiling, jostled the lamps somewhat. On Friday, the contractor erected a small scaffold, and a brave workman climbed to the top to aim spots at the altar and font. More frighteningly, he replaced the missing bulb. Sunday services should look a bit brighter now.

Preliminary Appraisal

After a few weeks' experience in the church, it is probably time to let out a breath and begin to enjoy the new acoustics. The evidence is accumulating that we have achieved exactly what we set out to accomplish. In fact, I suspect that anyone who attended the wedding Saturday afternoon no longer has doubts that the sound in our church is quite glorious.

Much of the music for the wedding was provided by a brass quintet. As the musicians practiced, it was clear that they sounded different from any other brass ensemble that has played in St. Paul's. The sound was less like that of an open field and more like the rich, reverberant sound of Gabrielli played in an Italian cathedral. Dr. Starr walked up and down the aisle and remarked that there seem to be no dead spots. And a limousine driver standing at the back of the church offered the unsolicited opinion that the sound was very good indeed. Perhaps my favorite reaction was from Fr. Pickering, who was performing the wedding

with Fr. Banse, our new rector. He was surprised to hear people in the congregation singing. People have been singing all along, of course, but this has never been very obvious from the chancel!

Now that we can better hear one another singing, we need to learn that we can sing with more enthusiasm without embarrassing ourselves. Perhaps we can even become a church known for its inspirational congregational singing. Imagine that!

My own evaluation of our PA system in the church is more negative. Although amplified voice appears to be intelligible throughout the room, there does seem to be an unpleasant edge to the sound, probably resulting in deficiencies in our sound system that have not stood out before now. A committee will be evaluating the PA system in its new environment, and comments from the pews will be very welcome.

On a somewhat unrelated topic, notice that the grills on the tone ports are now painted, and the wood molding is in place around the grills.

October 11, 1998

Organ Notes

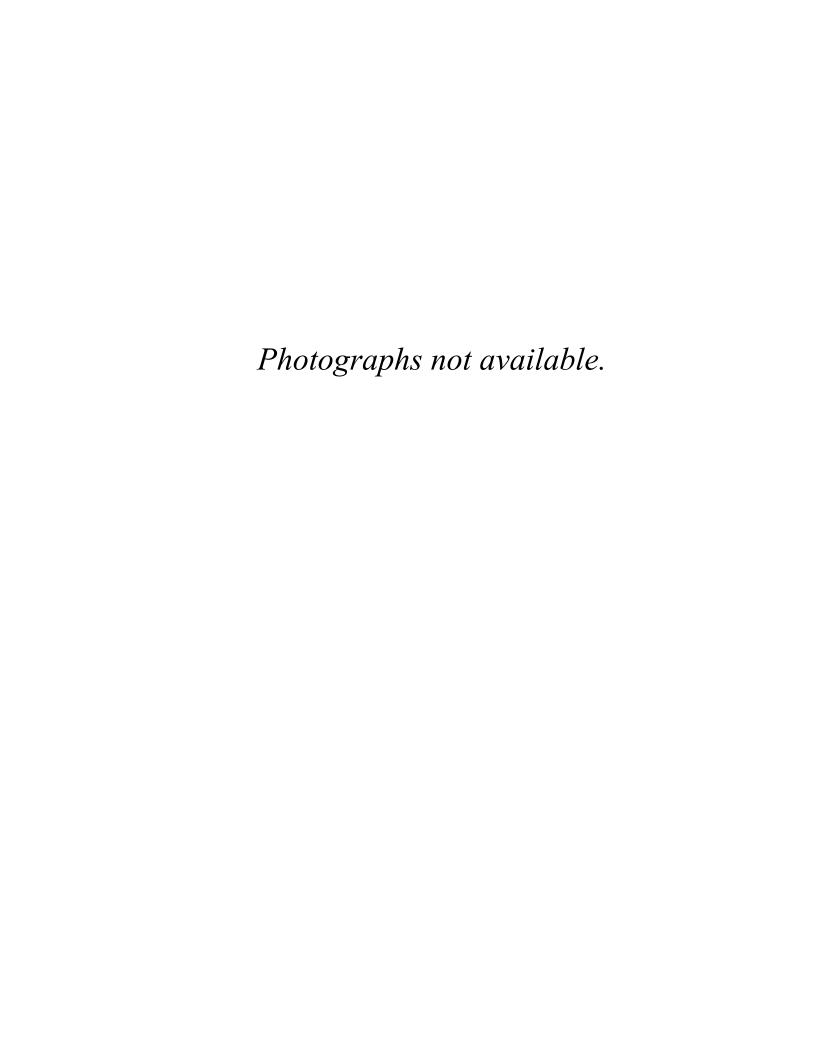
St. Paul's looks about the same this week as last, but things are about to change. On Monday morning, expect to see a tractor-trailer rig labeled "Schantz Organ Co." parked on Mayfair Drive. The first shipment from the organ factory is about to arrive. The first truckload will bring the gallery organ and some components of the main organ. Next week, the rest of our instrument will arrive. As soon as the trailer is unloaded Monday, work will begin on erecting the gallery organ. Don't plan to hear musical sounds for a bit, however.

As a preview of our new instruments, here are some photographs of it taken at the Schantz plant in Orville, Ohio. The larger photos were taken on the "official" tour a couple of weeks ago. The smaller ones were taken a couple of weeks before that. From top to bottom and left to right:

- Wood components of the organ (notice the label on the shelf)
- Pipes

- More pipes
- Wood pipes under construction
- Schantz plant
- Voicing organ used to make initial adjustments to pipes. The rank of pipes at the left are ours; the two other ranks are for reference.
- Large flue pipes in pipe shop
- More St. Paul's pipes
- Our main console under construction
- Gallery console under construction
- Gallery casework (some of it, anyway) and pipes set up in assembly room





October 18, 1998

Just About Done

Although the contractor is still responsible for correcting some small problems on the ground floor—I noticed a baseball-sized hole at the base of one of the hallway walls—the renovation of St. Paul's Episcopal Nursery School is essentially done. This past week, the hallway light fixtures were finally installed.

The new fixtures are probably the most unusual architectural feature of the entire project. Discs of light along the walls now illuminate the hallway. Actually, you have to see it to appreciate it. In any case, the Nursery School, which had been somewhat gloomy, is now cheerily lit throughout.

Now is a good time to tour the Nursery School area. Be your own judge of how successful the renovation has been. My guess is that most people who don't just *hate* purple will think it just lovely.



Gallery Organ

It is impossible to go into the church and not be struck by what has happened on the back wall since last week. The gallery (or antiphonal) organ is almost completely installed. What had been a plain white wall with a beautiful, but somewhat too narrow lancet window has been transformed. Below the window and across the back of the balcony is a wood enclosure that hides blowers, air reservoirs, wires, and pipes. Two towers rise from opposite ends of the enclosure. The towers are swell chambers, enclosed spaces for organ pipes whose loudness is regulated by swell shades, moveable wood slats that operate like vertical blinds. Between the towers are exposed metal pipes (and unseen wood pipes) that frame the window by fanning out and upward from the base of the window. Four more rows of metal pipes will be installed next week to complete the gallery installation. High atop the towers are the copper pipes of the trompette en chamade rank, the horizontal herald trumpets of the organ that nearly peek over the railing of the balcony. In front of this casework and organ pipes is the gallery console, which is not visible from below.

What is most arresting about the gallery organ is neither its beauty considered in isolation nor the way in which it and the window enhance one another. What is most striking is how the casework relates to the woodwork in the chancel. It achieves what every new organ installation seeks to achieve—it looks like it belongs where it is, and it looks as though it must have always been there. This is no small achievement.

The Schantz truck carrying the gallery organ and parts of the main organ arrived at St. Paul's on Monday. By lunchtime, everything except the gallery console had been unloaded from the trailer and was distributed throughout the church (see photographs). By Monday evening, the six workers from Orville, Ohio, had created the outline of what was to come (more photographs). The crew arrived early each day and worked with impressive efficiency, setting up the gallery organ and installing some components of the main organ in the old organ chambers flank-

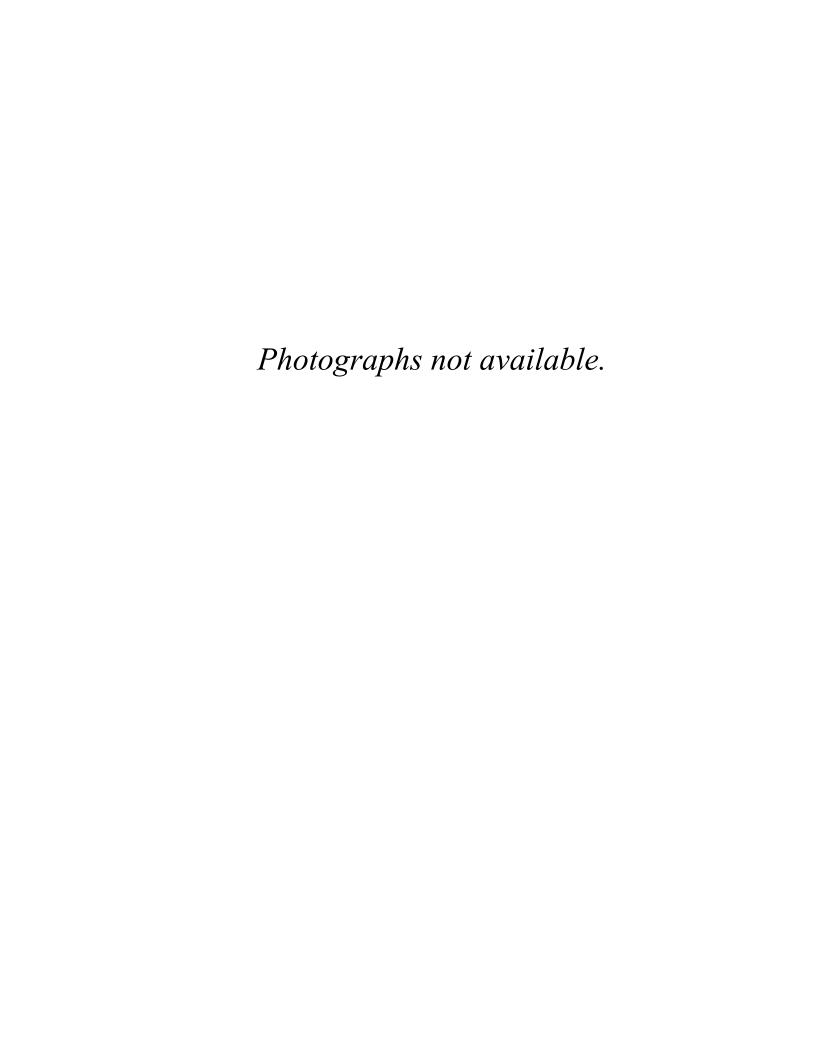
ing the chancel. The trailer returned to Ohio late Thursday, and the remaining workers finished their job Friday, with the help of a few parts that had to be brought down from Orville. Some parishioners claim to have heard the organ play, though it is not yet ready to be heard. When the Schantz crew left, the console cover was in place and locked. St. Paul's does not yet have a key.

On Monday, Jeff Dexter from Schantz will arrive to voice the gallery organ. He should be bringing with him the remaining pipes for the gallery. Voicing (or tonal finishing) is the process of making small adjustments to each pipe so that the organ becomes a musical instrument, not just a noisemaker. The voicer is concerned with assuring that the sound produced by the organ is neither too soft nor too loud, that the proper balance is achieved between ranks, and that individual ranks of pipes exhibit the same tonal character irrespective of which pipe is speaking. And, of course, the organ must be tuned, which requires additional adjustments to each pipe.

If all goes well, we will be able to use the gallery organ for services next week. This schedule was devised to allow us to have an organ as quickly as possible, but it should be kept in mind that that the premier of the gallery organ is somewhat misleading. By itself, the gallery organ is a small instrument, designed primarily to supplement the main organ and to provide accompaniment to the choir when it sings at the rear. It has roughly one-fifth the number of pipes of the organ as a whole. Hearing it can only suggest the character and flexibility of the completed instrument.

The rest of the organ is scheduled to arrive Monday, October 26, in another Schantz tractor-trailer rig. It is hoped that the erection and voicing of the main instrument will be completed by November 30, when Bishop Duncan officially installs Fr. Banse as our new rector.





October 25, 1998

Ready to Play

Voicer Jeff Dexter and his assistant Jeff Herr arrived from Schantz Organ Co. Monday to begin voicing the gallery organ. The process went smoothly, and, by midmorning Friday, the pair had left to return to Orville. Many parishioners stopped by during the week to observe the process, and the pair was good-natured about interrupting their work for conversation and demonstrations.

Had you dropped by to observe the work, you would likely have seen Jeff Dexter sitting in the middle of the center aisle at a small portable keyboard that looked like it might have come from a toy store. The keyboard was connected by cable to the gallery console, one of whose manuals (keyboards) the portable unit temporarily replaced. Dexter played notes from his station, listened carefully, and directed Jeff Herr to make changes to the pipes. Herr would have been perched somewhere on the casework among the pipes.

By the time of choir rehearsal Thursday night, the organ could be played, and the choir spent some time singing along with it. For the next few Sundays, the adult choir will sing from the gallery, and the gallery organ will accompany services. As soon as the main console is available, the choir can move to the chancel, even if little of the main organ is playable. For now, Canterbury Choir will continue to sing from its usual location, using the piano. Hymns will be accompanied by the gallery organ, which, by the way, should be quite adequate for the task. Keep in mind, however, that the pipes in the gallery instrument represent about onefifth of the pipes of the organ as a whole. This is not to say that the final instrument will be four times louder, but it will provide much more variety of tone color than is available now.

Organist-Choirmaster Doug Starr will be out of town this Sunday, so the first person to play the gallery organ in a service will be our twiceformer organist and Organist Emeritus, Chuck Little.

November 1, 1998

Continuing the Organ

Little happened of immediate consequence this past week. The Schantz van arrived Monday carrying mostly parts of the choir and swell divisions. The crew of four spent much of the week making all those parts disappear into the organ chambers. When the Schantz workers left Thursday, however, some pipe trays—the open boxes used to transport pipes from the plant to the installation site—remained in each transept. This coming week will see the final shipment from the builder, which will include the great and pedal divisions, as well as the main console. The playable part of the organ remains what it was last week—the full gallery organ. As a result, the adult choir will again sing from the balcony on All Saints' Day.

Wednesday, work on the organ was halted a second time by a funeral, and the church had to be made presentable for a service. This may have seemed a crisis to us, but the Schantz workers took it in stride. Such interruptions are apparently common in their line of work.

November 8, 1998

Big Changes

The arrival of the Schantz truck this week brought big changes in the church. The naked steel beams we have been staring at for so many weeks have been clothed in wood casework that mirrors and enhances the existing woodwork. And, presumably, exposed pipes are beginning to fill the formerly empty space on either side of the [liturgically] east window. "Presumably" because the organ builder was running late this week, and the crew worked well into Saturday afternoon, a time when I was too busy to drop by to verify progress. We expected the van to arrive on Monday, but, due to some problems with the main console—it too is now very conspicuous—the arrival was postponed until Wednesday. There had been hope that the installation would be finished this past week, but the installers will be here next week as well.

Now is a good time to address concerns that might be raised by the current state of the organ. (1) Won't it be dark under the new wind chests? Perhaps. We have decided to wait until the or-

gan is completely installed before deciding what additional lighting may be needed. (2) Won't the lighting above the wind chests need to be altered? Probably. The floodlights on either side of the arch are very close to the pipes, which can cause both aesthetic and physical hot spots. They make some pipes very bright and others very dark. The heat from the lights will also make nearby pipes flat, as it will expand the size of the pipes and lower the pitch. The two lanterns are less of a musical problem, but they may be a visual one. Again, we will wait and see. (3) Isn't the chancel crowded? Yes. As of Saturday morning, anyway, the piano was still in the chancel. This, along with the new organ console, makes for a very congested space. The piano should be removed presently, and the console—check it out—doesn't take up too much floor space.

Schantz should complete installation next week and begin voicing shortly thereafter. The instrument will be largely available for Fr. Banse's institution on November 30, but it will not be completed until early December.

November 15, 1998

Pipes

Contrary to my expectations, pipes did not appear at the front of the church last Sunday. Most of the exposed pipes were installed this past week, however, and the voicing process has begun. Voicer Jeff Dexter can now sit at the main console to do his job. The leased piano has been removed from the chancel, so we can begin to get a sense of how the chancel will look in the future. Little of the main organ is playable now, and only some of the gallery organ can be played from the front console. For at least another week, the organ will be played from the rear of the church.

Last week, a number of people were remarking on how natural the woodwork housing the new wind chests looks in the sanctuary. Organist Emeritus Chuck Little has provided an interesting sidelight to this addition and exposes some irony in the comments. Chuck wrote Victor Zuck about the organ installation. Recall that Victor, a Möller organ salesman turned priest, was, for many years, associated with St. Paul's.

According to Victor, when the previous organ was planned, he wanted to put pipes in the sanctuary where Schantz is putting them. The rector at the time, Dr. Doren would have none of this idea—his objection presumably was aesthetic—so it was never implemented.

The exposed pipes in the sanctuary are a prominent feature of the new installation, and a few words about them are in order. All builders considered for St. Paul's agreed that pipes needed to be "in the room." Every builder except Schantz, however, proposed placing pipes over part of the chancel, cantilevered in front of the existing chambers. These plans threatened to make great changes to the look of the chancel. Placing pipes in the sanctuary seemed less obtrusive. Furthermore, the confined space of the sanctuary provides a natural shell, which will reflect sounds from the pipes into the rest of the room. The placement also allows the pipes to be closer to center axis of the church, which is the ideal place, acoustically, for the origination of musical sounds.

November 22, 1998

Accommodations

The fine details of siting the new organ are proving a tad more difficult than we anticipated. Take, for example, the seating in the balcony. Recall that there used to be pews there, but the pews were uncomfortable and matched no other pews in the church. Clearly, they had to go. We thought that new seating could be provided by the pews removed from the chancel. This would not only have put matching furniture in the balcony, but would provide the music racks desired by the choir. Various pew arrangements have been tried in the balcony, and the last one almost worked. It is likely, however, that, in the end, we will use short pews on the top row, with chairs everywhere else. This will provide access to the blower and other organ components behind the center doors in the rear casework, and it will allow flexibility in seating arrangements. Whenever the choir sings from the rear, the singers will likely arrange themselves in neat rows, but, should we place an instrumental ensemble around the rear console, the players will

no doubt want to form as close to a semicircle as the risers will allow.

Lighting, both front and rear, is a bit of a problem. The two down lights that shine on the tops of the trumpets in the rear are something of a mixed blessing, illuminating the trumpets as the do, but also casting severe shadows on the casework and the seating below. The lamp in one of these fixtures has now burned out, and no one is quite sure how to reach it safely. The rest of the balcony lighting is reasonably satisfactory, though some aiming of fixtures is indicated.

In front, there is a growing consensus that the sanctuary lanterns detract both from the window and the organ. Removing them will allow the exposed pipes to frame the window quite nicely. Combined with the fact the floods for the sanctuary cannot be turned on because they are too close to the pipes, this means that the sanctuary could become quite dark. We will probably have to call upon a lighting consultant to find a solution to this problem, the balcony problem, and the matter of lighting under the

new wind chests. Unfortunately, any work done above or around the exposed sanctuary pipes will require that the pipes first be covered—debris in small organ pipes can be disastrous—and later re-tuned.

The news is not all so problematic. The two Jeffs from Schantz were hard at work this past week, continuing the voicing late into the night and into the weekend. All the pipes that can be seen in front can now be played with great success, though most of the organ in the chambers cannot be. Gallery pipes have been re-tuned to match the tuning of those in front. It is now possible to play both main and gallery organ from the front console and fill the church with sound in a way we never could before. Jeff Dexter gave a demonstration of this Saturday, and I can report that I felt enveloped in sound (but not overwhelmed) when standing in the nave. Jeff described the effect as being "like a big hug." Come to church and see how a big hug feels! But remember that there is more to come.

y y y

November 29, 1998

The Next Goal

With the Thanksgiving holiday, this past week was a short one for the Schantz crew voicing the organ. Progress was made, of course, though organist Doug Starr reports some intonation problems and even some cyphers. (At least one pipe spontaneously sounded at the 10:45 service last Sunday.) These are normal problems that will be taken care of presently.

It had been hoped that the organ work would be done by the end of November, though it appears now that the work will stretch into the second week of December. November 30 is an important deadline, however, as we will be joined by Bishop Duncan and many clergy to celebrate the new ministry of Fr. Banse. We will also bless the new organ that night. When Schantz returns on Monday, therefore, the goal will be to put the instrument into the best shape possible for Monday night. The organ won't be "finished" for the Institution, but it will do much more than an adequate job of celebrating the occasion. But just wait until Christmas!

December 6, 1998

BIG Blowout and Other Matters

Last Monday, the Institution was held for our new Rector. This event provided a good opportunity to hear the new organ, which, incidentally, was blessed during the same service. The Institution was quite grand, though there was some grumbling that the organ was too loud. Voicer Jeff Dexter warns that unfamiliarity with the new instrument will lead to some number of such complaints, as combinations of stops that were required on the old organ to produce adequate sound are overkill on our new Schantz. It may take some experimentation to learn how much is enough. When both the main and gallery organs are used, another factor comes into play—the sound cannot be the same in every seat. (Try moving around the room while listening to your stereo system.)

Jeff Dexter demonstrated an interesting organ feature to me the other day, the MIDI recorder. In a small drawer on the right side of the console is a device that looks a bit like a cassette recorder. It is, in fact, a MIDI recorder, "MIDI"

referring to the standard digital interface for musical instruments. Rather that being done on a cassette, recording is done on a diskette. The MIDI device rather simply and inexpensively turns the organ into a player organ. Because the console is largely electronic, information about what keys are pressed when and what ranks are engaged is recorded during performance. When the information is played back, the recorder acts as the console, regulating airflow to the pipes. Notice that sound is not recorded, only control information. Upon playback, the organ produces sound in the normal way. The MIDI recorder is not so much a way to eliminate an organist as a way to let the organist hear the organ as others do.

A group of St. Paul's people is meeting next week with the architect and lighting consultant to explore lighting changes that can be made in the church to accommodate the new organ. Figuring out what to do has proven difficult. Additionally, we have noticed that many lightbulbs are burning out upstairs simply because the lights are on during the day for the voicers!

December 13, 1998

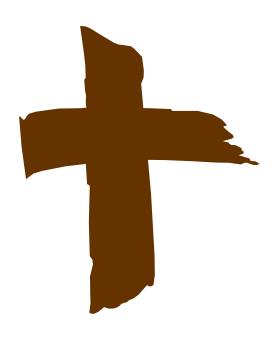
Homestretch

The current phase of construction at St. Paul's is nearly at an end. The punch list has been getting shorter and now mostly consists of minor construction cleanup items. Additionally, some of the hallway lights in the Nursery School were installed upside down, and they need to be righted. And we are still awaiting shipment of a handful of lighting fixtures for Nursery School bathrooms.

Voicing and tuning of the organ is, in principle, finished. One rank of pipes is not playing properly, however, and Schantz people will be at the church next week to track down the problem. No doubt other minor glitches will present themselves and will require attention over the next few weeks. We hope that all such problems can be resolved before the time of the initial dedicatory recital at the end of January.

Three matters remain to be dealt with in the church—lighting, seating, and sound. A meeting to discussing lighting matters had to be put off last week and has been rescheduled for Monday.

Chancel seating was discussed in Worship Commission, which devised various plans for seating that now must be tried out. Ultimately, we would like to replace the old cathedral chairs with more comfortable and attractive seating that would also provide kneelers for the choir. Seating is also an issue in the balcony. Here, too, it may take some time to find the right solution. The acoustical changes we made to the church did not, fortunately, make our sound system unusable, though it did expose weaknesses. For this and other reasons, upgrading or replacing the sound system is an undertaking for the near future.



January 17, 1999

Goodbye

The most recent building program at St. Paul's is done. The new organ is being used every Sunday, and the Nursery School is back to normal. The dedicatory recital on the new organ is but a week away. It is time to move on and to anticipate our mission under a new Rector and, presently, a new Associate Rector.

Has Continuing the Vision met expectations? For most, I suspect the answer is yes. The Nursery School renovation has produced the kind of high-quality result that the earlier undercroft transformation led us to expect. We have said to the community in the most concrete way that St. Paul's Episcopal Nursery School is an important vehicle of outreach for St. Paul's Episcopal Church.

For many parishioners, the changes in the church are probably still somewhat unsettling. The ceiling looks as it always has, the organ often seems too loud, the sound system is more obtrusive than ever, the lighting in front is dreary, and no one seems to know exactly where

to sit during services. The end of the project here has, in fact, left some loose ends that must be addressed.

The acoustical hardening of the ceiling has been a great—and possibly lucky—success. View it with your ears, rather than your eyes. Singing in the congregation the other day, I was struck by how well I could hear others around me singing and reciting. I felt much more a part of a group than I used to feel in these circumstances. The choir and the organ also sounded very fine indeed from my vantage point. As a congregation, however, we need to learn to sing with more enthusiasm. It will take some time to recognize we can do so without embarrassment and can give ourselves a spiritual thrill in the process.

The lucky part refers to the degree of reverberation introduced into the room. We knew that more reverberation would enhance music but could make voice less intelligible. Our acoustical consultant warned us that an even less extensive ceiling modification would degrade intelligibility of the spoken word to the point that our

old sound system would have to be scrapped in favor of one that used speakers distributed throughout the room. The consultant was apparently wrong; not only does music sound better, but also speakers with strong voices are easily heard and understood from everywhere in the church. The more favorable room acoustics have exposed flaws in our sound system that were formerly masked, however, so we may still need to buy new speakers and other components.

As for the organ, those who have doubts about what marvelous things it can do need to mark January 25, the day of the dedicatory recital, on their calendars. As for the "too loud" objections, parishioners have sometimes been right on target. Each pipe organ and worship space is unique, and it takes time to learn what sounds work best with the combination at hand. We at St. Paul's are used to an inadequate organ in a "dead" room, and both our voices and expectations will have to undergo some adjustment. So will Dr. Starr's registrations.

Probably the biggest problem that is a legacy of Continuing the Vision is lighting. The existing floodlights in both the front and rear of the church are positioned where they now create severe shadows and warm pipes so as to cause them to go out of tune. The lights in front cannot be used at all, resulting in a relatively dark sanctuary and choir. Moreover, the area below the new wind chests flanking the east window is especially dark, as no lighting has been provided for it. We are currently awaiting a proposal to modify our lighting system not only to achieve adequacy, but also to enhance the beauty of the church by lighting the exposed parts of the organ in a way befitting such an important architectural element of the room.

As for how we use the chancel, the Worship Commission is at work trying different schemes. Eventually, we will again look like we know what we are doing. Be patient. Perhaps by Easter (or somewhat later), our legacy problems will have been dealt with, and we can begin to feel more comfortable in our new surroundings.

God has blessed us greatly, but He hasn't yet let us off the hook!

But back to goodbye. This is the last installment of this incarnation of the St. Paul's Construction Update bulletin board. It is time to thank readers and contributors alike for their help and indulgence. I sincerely hope my efforts have helped people understand and appreciate the changes at St. Paul's these many months. May we be good stewards of what we have wrought.

Some special thanks are in order. The staff of the church and Nursery School were ever helpful, however strange my requests. Jane Adams was always patient and forthcoming, despite my obvious ignorance of the Nursery School. We all owe a great debt to Jim Wilbur, who has been our overseer for this project, but I owe him special gratitude for his willingness to discuss the project with me and to listen patiently to my own concerns. Many of the details I was able to report could only have come from someone intimately involved in the construction. For such details, I am indebted to Phil

Muzina of Landau Construction Company. Jeff Dexter, Jeff Herr, and Tim Mann, of Schantz Organ Company were always friendly and informative. Whenever I could not talk to them—or any of a number of other people for that matter—I knew I could rely on Chuck Little to tell me what was going on.

And so, I now return to civilian life. I have enjoyed playing reporter—it is a great excuse to snoop around and ask questions. But now I, like you, am called to be living the vision.

—Lionel Deimel

