

ST. JOHN'S FOUNDATION

THE EHRICK ROSSITER STONE CHURCH RENOVATION PROJECT

FIRST STEPS – February and March, 2024

Feb. 4, 2024

St. John's Foundation board meeting. Board-member nominations confirmed: Veronique Dulack, Alec Purves, Rod Pleasants. Father Geoff Hahneman and David Gillespie present as *ex officio* board members, as Priest-in-Charge and Treasurer of the Vestry, respectively. The board elects Worth Bracken as President, replacing Mary Davis, who remains as an advisor. The board agrees to initiate a project of restoring the nave windows in the church, which are in varying states of disrepair (some windows no longer close, for example, and in others the panes are detaching from the lateral saddle bars that support them).

Feb. 14

Veronique Dulack and Worth Bracken meet at the church with Charles Woodward of Guarducci Stained Glass Studios about restoring the windows in the nave.



Charles Woodward suggests

that we confirm the structural soundness of the cast-stone window surrounds before embarking on window restoration. On Feb. 20, the Foundation receives an estimate from Guarducci Stained Glass Studios of \$168,200.

Feb. 15-16

Visual inspection of the exterior window surrounds along the outside of the nave suggests that the cast-stone used for the surrounds may mostly be in good shape, but the coating that has been applied in successive layers is peeling. So most, at least, of the window surrounds themselves seem not to need replacement in order to undertake the window project, but they do look a mess.



However, even a cursory viewing of the church's wall surfaces reveals significant deterioration. In some areas, what appear to be large cracks run along the joints between stones (see top of next page).



In other places, gaps both large and small appear between stones.



Several of the cast-stone coping elements and whole sections of the cast-stone water table are spalling, or crumbling, leaving piles of detritus and dust on the ground beneath them.



The church's cornerstone approaches ruinous condition.



Although the nature, extent and cause of the damage are unclear from visual inspection alone, it is glaringly obvious that the alarming condition of the church requires immediate attention.



This leads to a reevaluation of priorities: the prospective restoration of stained-glass windows in the nave is put on the back burner, and the St. John's Foundation turns its attention instead to the masonry fabric of the church structure.

Feb. 21

Worth sends an email to Peter Talbot, AIA, a prominent local architect who grew up in Washington and was a congregant of St. John's as a child and young person, requesting a referral to a suitable masonry expert to evaluate the church.

Feb. 22

Meeting by Zoom of the St. John's Foundation. Worth suggests that restoration emphasis be moved from windows to the church structure. Board members agree.

Feb. 22

Peter Talbot suggests meeting Worth at the church to do a preparatory visual inspection. They agree to ask Alec Purves, a Foundation board member and Professor Emeritus of Architecture at Yale, to join them.

Feb. 27

Worth, Peter and Alec meet at the church and inspect the structure on the inside and outside, except the inside of the tower. They agree that the best next step would be to renew discussions with Wiss, Janney, Elstner Associates, Inc. (WJE), the engineering firm that prepared a detailed review of the church structure in 2011.

March 15

Peter reports that he has reviewed the 2011 WJE report, and that he has had an initial discussion with Jaret Lynch, one of the signatory engineers of that report. Peter also contacts other potential consultants for initial discussions. These discussions lead to an introduction to Josh Jaskowiak, an engineer at WJE, whom the building committee selects. Peter makes further inquiries regarding masonry contractors; these lead to a referral to Ben Pear, of Benjamin Pear Masonry, which is based in New Milford.

PRACTICAL STEPS IN A PATH FORWARD – April–June, 2024

April 19

First meeting at the church with Peter Talbot, Alec Purves, Worth Bracken, Josh Jaskowiak (WJE), and Ben Pear (Benjamin Pear Masonry, or BPM). Visual inspection of masonry determines that the stones themselves are mostly in good condition. However, it is obvious that mortar has experienced extensive deterioration and that restoration is required; we cannot yet know the depth into the wall of mortar loss. Areas of most serious, immediate concern are around the west portal and wall, and the east wall and pilaster/buttress (Josh exclaimed “And this is the big one” upon seeing it).

Successive layers of coatings have been applied to all cast stone elements at some time in the past, and it is deemed likely that these coatings have contributed significantly to the present state of deterioration. Although they may have originally been applied with the goal of repelling water, they have probably had the contrary effect of trapping moisture in the structure of the stone wall. (They may also have been applied for aesthetic reasons, such as visually setting off the windows from the wall surfaces.)

In the photo to the right, one can see both the layers of coating on the cast stone of the exterior chancel window and a section at the bottom that has been cleaned to reveal the original.

Coated section of original cast stone

Cleaned section of original cast stone



We do not enter the tower, but it does not appear from the ground to have experienced the same amount of damage as the lower sections of the body of the church.

A main take-away from this meeting is that we need more information than is available through visual analysis. Since visual inspection alone cannot provide enough information about the extent of damage, it is not yet possible to determine a plan of action for the church as a whole. Therefore, it is clear that our next step must involve analysis and assessment of wall structure, cast-stone elements, and mortar. Also, we must act soon, because the deterioration will accelerate if allowed to continue unchecked, due to the accumulating effects of ongoing moisture and other causes of damage. The building committee emphasizes to Josh and Ben that none of these considerations can be taken into account without considering their financial costs, especially given the Foundation's very limited resources.

A Plan Emerges

As we discuss these points, a plan of action emerges: Conduct an initial, trial-phase renovation project that will tackle two of the most problematic and urgent sections of the church – the north exterior chancel wall and buttresses, and the buttress and section of wall to the left of the front door on the west façade. The project should have two main objectives: 1) Acquiring more information about the extent and cause of the damage; 2) Actually repairing the sections that are addressed. Included in the project will be an assessment of the tower. Not only will this plan allow us to stanch the worst of the deterioration, and thus buy us time to prepare properly for repairing the church as a whole, it will also provide the information we need to conduct a full-scale renovation project as effectively as possible. The meeting concludes with Josh and Ben expressing their strong enthusiasm for the project and its aims; they commit to submitting proposals for undertaking the work.



May 1

WJE submits their proposal for analysis and oversight of repairs in areas selected for the trial phase of church renovation. (Ben makes verbal proposal, which is formalized in writing on June 10.)

May 30

Peter, Alec and Worth meet to discuss the project and the WJE proposal. They agree that the best path forward at this point is to proceed with the limited scope we had previously discussed of a project focused on two discrete areas with the dual goal of information-gathering and repair. It is also agreed that the project is “hand-to-work” or “design-build,” meaning that it involves a small number of participants who can adapt nimbly to contingencies; this is especially important given the information-gathering nature (in part) of the project. Worth and Alec voice initial hesitations about the WJE proposal, but through discussion it is determined that the proposal is well-scaled to the requirements of the project and promises to be effective. We also discuss scheduling and other operational issues, as well as the importance of having the church covered by the contractor’s liability insurance.

June 1

Meeting of the Board of Directors of the St. John’s Foundation. The Board votes to accept the WJE and Benjamin Pear proposals as thus far presented and to proceed with the plan for a trial phase renovation project focused on the north chancel wall and buttresses, and the left side of the façade.

June 24

Phone conversation between Worth and Ben. Discussed language for Certificate of Insurance. Also discussed cast stone and the choice of Sun Precast for supplier. WJE recommended Sun Precast, which weighs heavily in their selection. Ben noted that we need to order as soon as possible, due to the six-week lead time required.

June 1-25

Peter, Worth and Alec continue to discuss details of scheduling the project with Josh Jaskowiak and Ben Pear, both by telephone, email, and a Zoom meeting.

June 19

Meeting of building committee, WJE, and BPM. Includes discussions about the roles and expectations associated with the various stakeholders and participants, and, relatedly, reporting structure. It is determined that Worth should be the primary owner’s representative, acting under advisement of WJE, BPM, and the building committee. That stated, Ben will receive instructions on a day-to-day basis not from Worth but from WJE, which will direct BPM’s actions in accordance with the project drawings and construction documents that they’ll prepare and taking into account contingencies as they arise on site.

Josh explains that their rate structure is an estimate based on time and materials. We agree on the importance of having a way to cap expenses so they don’t spiral out of control. It is decided that the most effective way of doing this is to start on the north side of the chancel and complete that section first. Then we can determine how the budget looks for moving to the section of the façade that we plan to address.

June-August

Ongoing provision of legal counsel from St. John's Foundation board member David Gillespie on contracts and insurance documentation (offered pro bono), which results in various modifications to the relevant documents.

JULY AND AUGUST – MORE PRELIMINARIES

July 2

Kick-off meeting via Microsoft Teams of the building committee and Josh and Ben. We agree that Ben can handle the permit required by the town. We discussed various points about cast stone, which has to be ordered six weeks or so in advance of its use, as well as holding an initial discussion about mortar. We continue to discuss various planning issues, including an eventual inspection of the tower. The building committee agrees in principle to the contracts for WJE and BPM, but negotiations over specific points of wording are still underway, so nothing is finalized. Peter suggests the possibility of converting the contracts to be AIA compliant – both Josh and Ben agree to do this. (In the end, WJE submits both a slightly modified version of their original proposal and an AIA-compliant contract. We end up agreeing that BPM can submit a slightly modified version of their original contract, without reference to AIA contractual form.)

July 19

St. John's Foundation board members meet at the church with Ben Pear, the mason, to choose a color for the four cast-stone coping elements that need to be replaced in the current project. Upon discussion, it becomes clear that the appearance of the uncleaned stone cannot be used as a reference point for selecting new (clean) cast stone. Most of the original cast stone is covered with several layers of coating; where the original cast stone is visible, its color is obscured by dirt and/or mold. The board votes at the site to approve a change order that will include cleaning the stone and casting stone in the area already designated for renovation. The question of choosing a color will be revisited after a section has been cleaned.

August 6

Peter and Worth meet with Tom Hollinger, a congregant of St. John's and Chair of the Town of Washington's Historic District Commission, in order to discuss the planned work on the church and its conformity with the town's historic preservation codes. The salient points that arise are that the work will involve "repair in kind," or repairs that make no observable changes to the visual character of the church, and that the work will be undertaken in a manner consistent with and respectful of high standards of historic preservation. Tom requests that the Foundation write a letter explaining the project and its goals for the Historic District Commission to consider as they deliberate in the approval process. Worth subsequently writes such a letter and hand-delivers it to Town Hall.

August 19

Renovation team meeting: building committee and Josh and Ben, via Microsoft Teams.

August 20

WJE and BPM contracts signed.

SCAFFOLDING! And Review of Existing Conditions at Site

August 30

Meeting at church with staging company to plan for scaffolding.

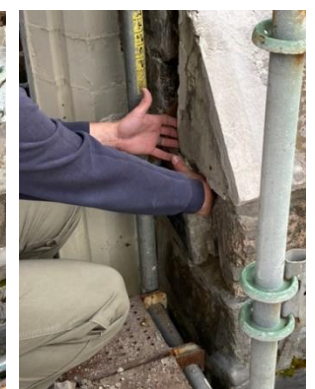
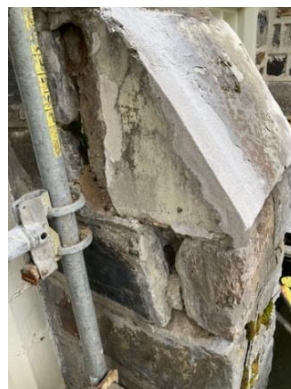
Sept. 20

Scaffolding erected against north chancel wall.



Sept. 23

Meeting with WJE and BPM at the church to review existing conditions from the newly erected scaffolding. Present were the full building committee, and Josh Jaskowiak (left in photos 2 & 3), Camden Crittenden and Klaudia Bak, all from WJE, and Ben Pear, mason (right in photos 2 & 3). Review of site conditions and discussions of scope.



FASCINATING MEETING ABOUT MORTAR AND CAST STONE – SEPT. 30, 2024

Sept. 30

Site meeting to discuss options for mortar type, color and application, as well as cast stone type and color. Ben prepared a board with samples and prepared sample areas of wall.



He also test-cleaned sections of stone wall and both original (1917) and new (2015) cast stone.



Cleaned stone wall section at left



Original (1917) cast stone – cleaned section at bottom



New (2015) cast stone – cleaned section at left

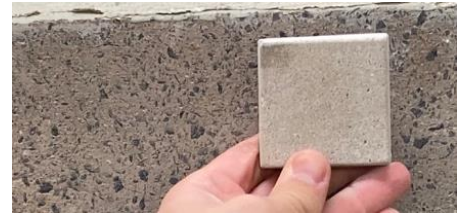
An important goal of the meeting today is to choose colors and mortar types, because enough surface has been cleaned to make comparisons valid. After considering various options and taking into account the (concurring) advice of Josh and Ben, the building committee selects Sun Precast Co. # 302N.



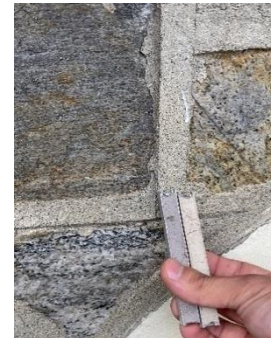
The photo to the left shows a sample of # 302N held against a cleaned section of new (2015) cast stone. When considering this comparison, an important point to keep in mind is that the clean section of the 2015 cast stone has weathered since it was installed, even though it was only nine years ago. As a result, some of the “fines” in the cement have washed away, revealing larger pieces of aggregate – as opposed to the sample, which therefore presents a smoother and less “grainy” surface. Another important point is that the cleaning did not remove all dirt staining. Thus, Ben smudged the lower left corner of the sample so we could see how it compares (this is visible in the photo). Taking these points

into account, Josh, Ben and the building committee all agree that # 302N is the closest match, and it may even be exactly the same (we have not found in the archives a record of the specific cast stone used in 2015, so we can't verify this possibility).

An interesting consideration here is that the 2015 cast stone does not *presently* appear to match the original cast stone. That stated, it does seem likely that the 2015 cast stone and the # 302N cast stone will gradually weather to an approximate correspondence, and it's possible that, over time, they will look approximately like the original cast stone does today. A later step in this trial-phase renovation will determine whether we apply some sort of breathable coating to the variously presenting types of cast stone or let nature take its course. *Stay tuned for more in a future blog post on the interesting topic of determining a period for the historical character of the new cast stone, and integration of the various cast-stone elements on the church into an integrated whole!*



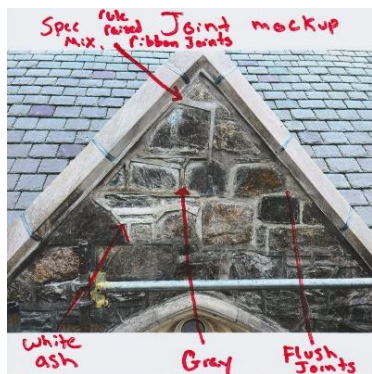
As for the mortar, at the site it was clear that mortar with an added pigment called “limestone” coloring would best approximate the color of most of what is currently present, especially when considering the likelihood of it darkening with age (see photo to right). Alternatives seemed either too dark or too light, as in photo at far right).



We also considered different applications of mortar. The two basic choices: flush trowelling; and some degree of extrusion, where the mortar extends in “ribbons” beyond the surface of the wall. Mortar trowelled so it is flush with the stone is relatively easy to apply and is relatively resistant to water damage. Aesthetically, flush mortar treatment provides a single surface plane, which undulates slightly with the changes in character of the individual stones. Thus, flush treatments of mortar tend to emphasize the totality of the wall in relation to the form of the building itself; the presence of the joints between stones is minimized, and the viewer’s awareness of the mortar and of individual stones tends to be subsumed into awareness of wall.

By contrast, applications of extruded mortar provide a network of contour lines that are apprehended both visually and, because they are raised and have measurable width, physically as an independent architectural element. Therefore, extruded mortar tends to break up the coherence of the wall as surface plane. For one thing, it presents web-like linear paths for the eye to explore independently of the mass of the building’s form. Since these paths follow the contours of individual stones, extruded mortar treatments also tend to enhance the viewer’s awareness of stones, thereby putting more of an emphasis on the wall as a collection of individual parts. Therefore, when a variety of interesting stones are chosen for the wall, as at St. John’s, an extruded treatment of the mortar can bring the varied qualities of the individual stones more immediately to the viewer’s attention.

Below right is a photograph that Ben took of his trial mortars and labelled. It indicates both the different types of mortar under consideration and the different applications (extruded is on the left and flush is on the right). The center photo below shows Josh and Ben inspecting the trial mortars, and the photo below on the far right shows Peter Talbot, Klaudia Bak (of WJE), and Josh deliberating.

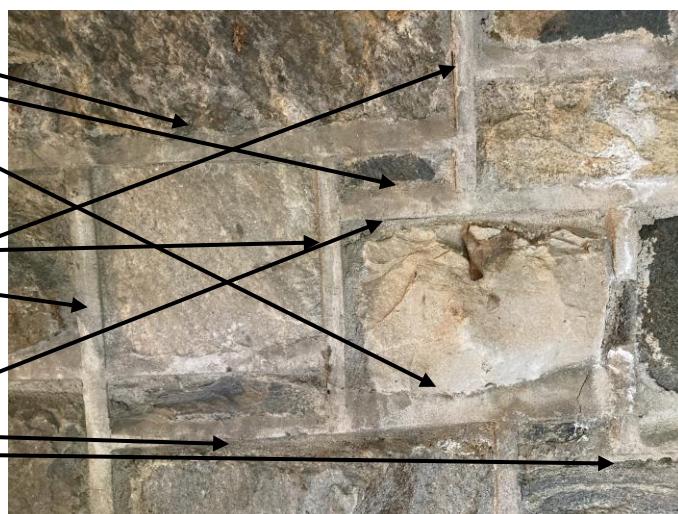


In a historical preservation project, a key consideration in questions such as type of cast stone and style of mortar application is determining the historical moment that will be used as a standard for renovation. As far as the mortar is concerned, Josh and Ben both believe that there may be no original mortar visible on the main exterior body of the church, due to successive campaigns of repointing. However, the section of exterior wall that is now enclosed by an outside stair to the undercroft does appear to be original. Therefore, we decided to use it as a basis of comparison for joint type and mortar.

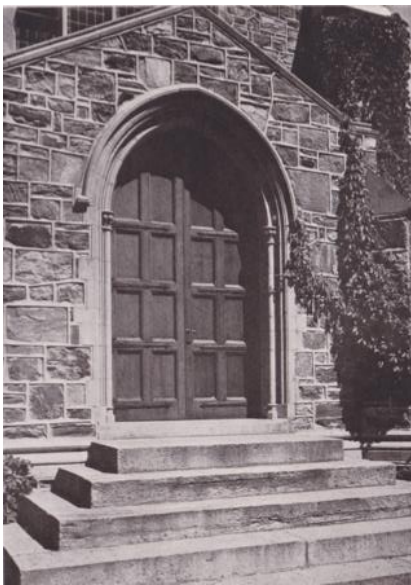
Note how top of joint is flush to surface of stone.

Mortar is then built up to extrude.

And a raised edge is formed on the lower side so water drops away from mortar.



Old photographs provide more testimony to the original treatment of mortar. As you can see in the examples that follow, the original treatment had pronounced extrusion.



SITE VISIT, October 7, 2024

Josh and Klaudia Bak from WJE visited the site to review coating removal on tracery units, finalize mortar color and profile selection, and to finalize coping and watertable cast stone selection. Also present were Ben Pear and Pete (from BPM) and Worth and Peter Talbot. For more information, see Site Visit Report No. 3.

The photo below to the left documents ongoing coating removal. The middle and right photos show Josh testing a spalled section of tracery.



Below left is original tracery cast stone with coating removed. The surface is very smooth. In the middle is Josh testing water table cast stone spalling, with Ben in the background. To right below is Josh holding up the sample piece of cast stone # 302N.



SITE VISIT, October 18, 2024

Worth visit to Ben and Pete at site. Below right is an area of wall where the old repointing has been scraped out and it now awaits repointing.



SITE VISIT, October 24, 2024

Worth visit to Ben and Pete at the site – another exciting day! BPM erected scaffolding at the front of the church to the left of the façade entrance, in preparation for starting work on that section. Ben hopes to be able to commence in that area next week.



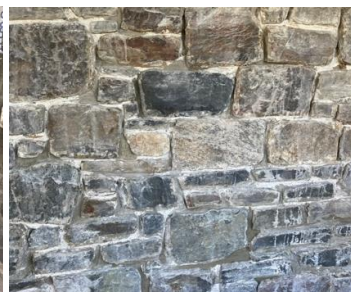
Some of the damage to be repaired is clearly visible here.

What's really thrilling is that Ben and Pete have started to repoint. After the time spent planning, raising initial funds, setting and revising goals, reviewing contracts, and working and meeting at the site to prepare (as detailed in part above), to see these joints repaired and sculpted into such an aesthetically pleasing surface sparks unexpectedly strong feelings of happy exuberance. Our dear stone church, so recently under such duress and appearing worn and broken, now looking so pert and dapper again – a gladdening sight indeed!



Photographs above are of the repointed gable, the first section to be addressed.

Below is a section under the window on the north chancel wall, before repointing. Wall surface to the left in this photo has been cleaned, but otherwise this area appears as it did before the project commenced. Middle left is the same section of wall during cleaning and after joints have been scraped in preparation for repointing. Below right is the repointed wall and a detail of it.

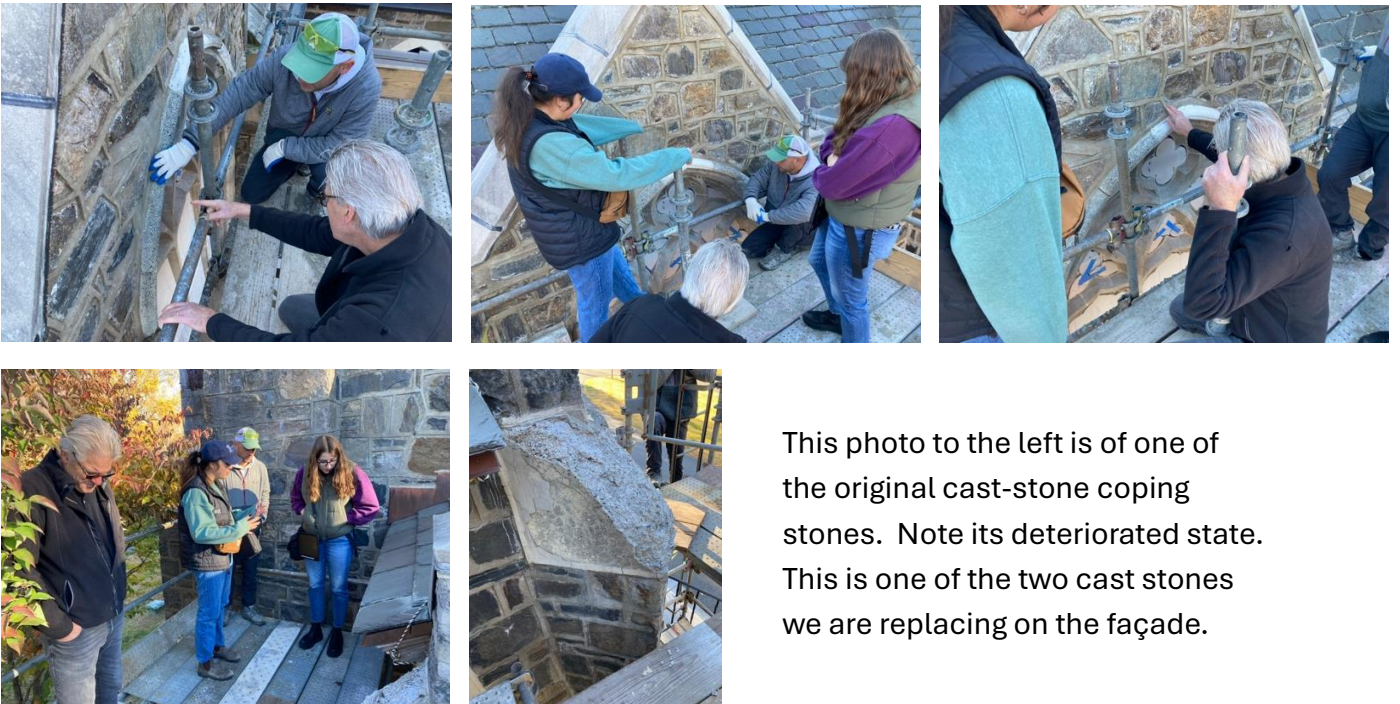


Below are before-and-after pictures of the left buttress on the chancel wall. Red arrows indicate corresponding sections between photos.

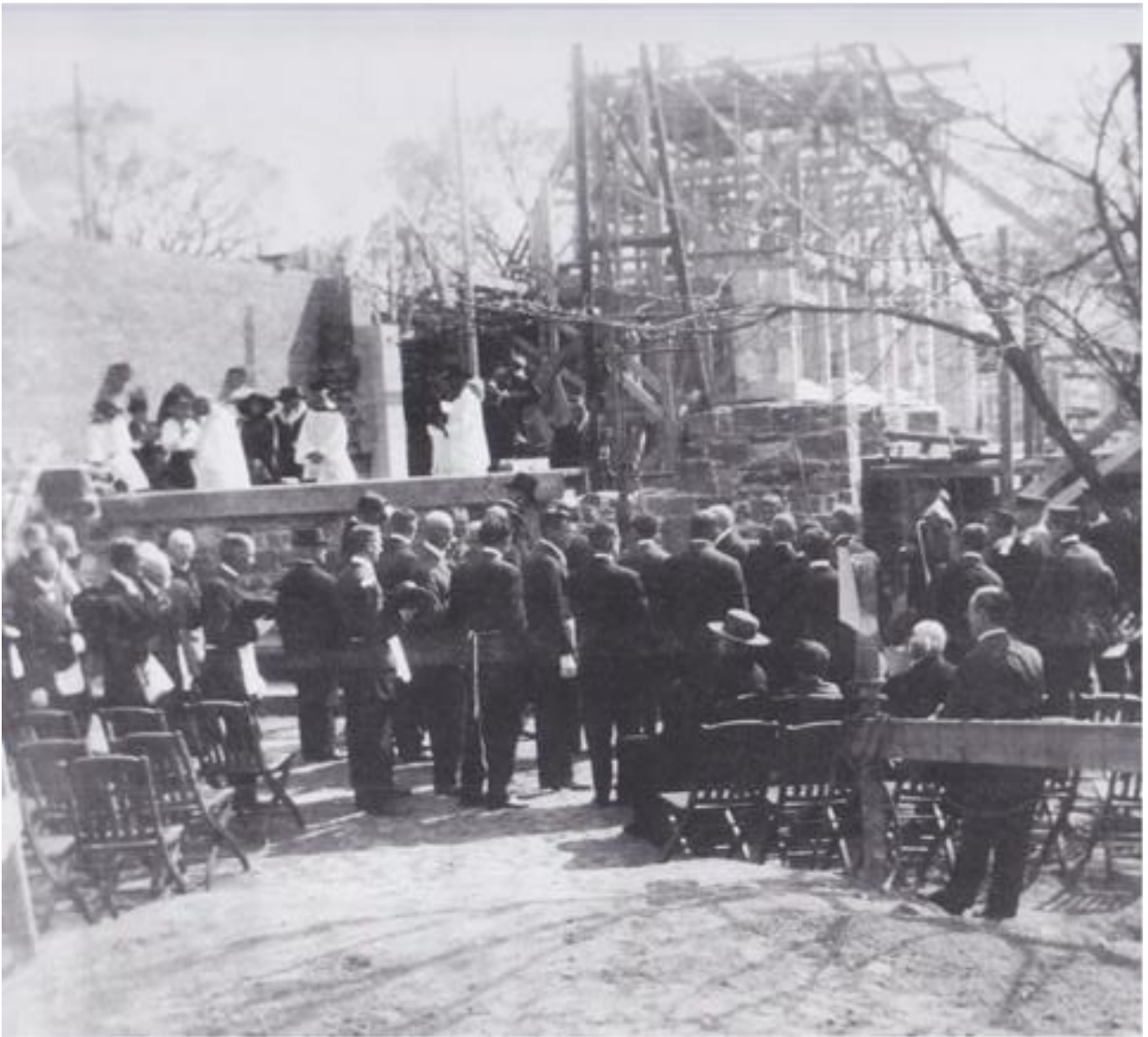


SITE VISIT, October 24, 2024

Site visit with Ben and Pete (BPM), Klaudia Bak and Camden Crittenden (WJE), Peter Talbot and Worth Bracken. Review, and discussion about window surrounds and tracery. Below are some photos.



This photo to the left is of one of the original cast-stone coping stones. Note its deteriorated state. This is one of the two cast stones we are replacing on the façade.



Laying the cornerstone of the new church, 1917.

Please consider donating to help us with this crucial project. For that purpose and more information, visit

<https://stjohnswashington.com/renovation.>