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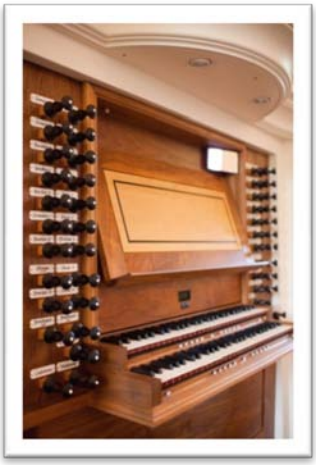
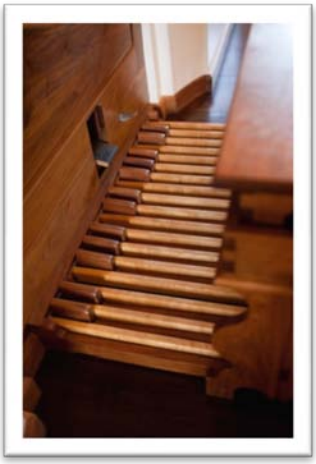
New Organs: Joe R. Engle Organ, Miller Chapel





On February 2, 2001 the new Joe R. Engle pipe organ, Opus 20 of Paul Fritts & Co., Organ Builders, Tacoma, Washington, for Miller Chapel at Princeton Theological Seminary was dedicated with festivities which included a dedication service and dedicatory recital, followed by a three-day colloquium (sponsored by the seminary) featuring a variety of worship services, recitals, lectures and panels on topics related to the organ in both historical and contemporary worship.

David Dahl talks with Paul Fritts about the new organ.

David Dahl: After you were selected to build the new organ for miller Chapel, how did you arrive at the concept we see and hear at the seminary?
Paul Fritts: I listened to the musical needs for the chapel as expressed by martin Tel (organist and C.D. Seabrook Director of Music at the Seminary) and the members of the organ committee (chaired by James F. Kay, Associate Professor of Homiletics and Liturgics at the seminary). They desired an organ with strong identity which would serve the daily worship of seminarians, as well as musical concerts involving choir, soloists, and various instruments. Martin Tel stated: "This is a very important instrument; seminarians need to be exposed to and 'moved' by an instrument of exceptional merit, such that in their later work as clergy they would be encouraged to seek similar quality."

Dahl: In order to reach consensus on the scope of the instrument, were there limitation which you needed to consider?
Fritts: Limitations can be both an asset and a drawback; they are a fact of life. If we try to eliminate limitations everything gets watered down. For Miller Chapel it was decided that the "identity" would be an organ known to be historically successful with congregational singing and a large body of liturgical organ repertoire. This identity was to be a blend of related North and Central German and Dutch concepts common to the late 17th and early 18th century, in which a large secondary division would serve as both an Oberwerk and Swell as companion to the Great and Pedal.

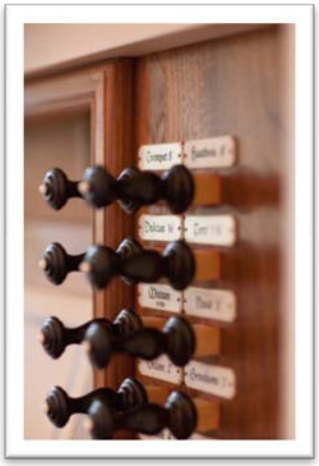
Dahl: Would you say that the concept is more "historically inspired" than a copy of some form of an old organ?
Fritts: Definitely! I worked to build this organ with an integrity based on historic models, but in the end it represents what I think ill work and sound best at this point in time. It is a modern instrument.

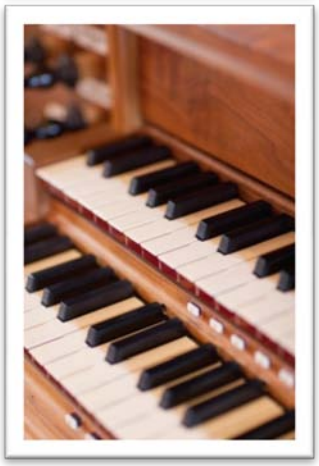
Dahl: Would you comment on how you arrived at the type of casework and architectural style we see here at Princeton?
Fritts: Miller Chapel is quite similar to Kilworth Chapel at the University of Puget Sound, Tacoma, Washington, where ten years ago we built an organ with a case design similar to organs in 18th -century Germany - such as those built by builders like Gottfried Silbermann and Hildebrandt. This concept works well there, and I thought that, with the same height restrictions coupled with a fair amount of depth, a similar casework and internal arrangement of the divisions would be successful at Princeton. We also

talked about the organs of the early American organ builder, David Tennenberg, who build instruments in Lutheran, Moravian and Reformed churches in the Mid-Atlantic region. Many of his organs found their place in the meeting-house style of building, where he most often used an 18th-century style case design. This building style is not unlike Miller Chapel.

Placing the organ front and center was a decision reached after exploring the possibility of the rear balcony. A good deal of remodeling was done to provide more width to the front of the chapel, so that the organ could stand on the floor at the front, with its presence clearly "in the room." The remodeling, taking in to account prior and current values for worship and music, also provided a flexible open space in front of the organ case, which during the colloquium following the dedication was the place for a very effective modern dance program with organ music of Bach and Eben.

I wanted a rather spacious case inside for the pipes, like Central German organs of Bach's time, which represents a change for me from some of the previous organs I've built in the more traditionally confined cases of North German style organs. This spaciousness would particularly ensure the effectiveness of the Swell division.





Dahl: Could you speak a bit more about your approach to building the Swell division, which, with 14 independent registers, is rather substantial?

Fritts: Yes, it is a rather large division. Some people have asked why there are not three manuals with an organ of 39 stops and some 60 ranks. Quite simply there was not enough height to do that, and I believe that a Swell should be on the large size in order to be effective. We decided that both the Great and the Swell should have principal choruses based on the 8' level. To make the Swell effective, there are shutters on three sides of the Well, which is positioned above the Great with rather free egress to the room. These shutters close tightly to make even a fairly large ensemble rather quiet; yet when open fully, the effect is similar to that of an Oberwerk. The Swell contains three reeds, of which the Hautbois 8' is closely modeled after Cavaillé-Coll - an exception to the Germanic roots of the organ, but nevertheless one which blends well within the total ensemble.

Dahl: I see that your mixture registers are IV-VI ranks, or V-VII ranks. Are there up to six or seven different pitches in these mixtures?

Fritts: The mixtures normally have but four pitches; in the treble some of the pitches are doubled with a second set of pipes. This helps achieve better turning an d focusing in the ensemble. Multiple unisons do not increase loudness much at all. The Swell Mixture V-VII has an optional Tierce rank which may be added or left out.

Dahl: Getting back to some of the limitations we spoke of earlier, I notice that you did not limit the stop action, but you "piggybacked" an electric stop action with solid-state combination and memory system. Would you comment on that decision?

Fritts: With a straight mechanical stop action there is little or no chance of failure to use the organ. However, we all agreed that with the size of the instrument and the variety of purposes for which it would be used, it would be good to have a state-of-the-art combination system. We installed a 99-level solid state memory system, in which each memory level has 20 general pistons. A "sequencer" is also provided, permitting the organist to advance from one general to the next by the use of one lever located to the right of the Swell pedal.

Dahl: The organ is tuned in the well-tempered system know as "Kellner." Would you speak about this choice for Miller Chapel?
Fritts: This is quite an amazing solution to the challenge of temperament and tuning. All keys are playable, and each has a slightly different personality. The major thirds of the most commonly used keys (especially for hymn singing, and a majority of repertoire) are more in tune than with equal temperament. However, even in the more remote keys the Kellner temperament works well. We advocate this temperament for nearly all of our instruments.

Dahl: How did the organ work with the choirs which sang during the colloquium, and during the morning seminary worship services?
Fritts: The dedicatory recital included the Seminary choir singing the Benjamin Britten *Rejoice in the Lamb*, for chorus, soloists and organ. This was a good test for a wide dynamic range, quick color changes and blend with voices. The organ succeeded well, I believe. The Westminster Choir of Westminister Choir College also presented an evening concert which included the C. V. Stanford *Magnificat & Nunc Dimittis in C*, which required the organ to work like an English cathedral organ. Here the Swell division responded well to the demands of a wide dynamic range.

Dahl: Is there anything you would do different if you built this same organ again?
Fritts: Even if I tried to make this identical organ again, with the same drawings, materials, scaling and voicing, it would turn out somewhat differently. In any handcrafted instrument, every crafted piece depends on so many variables at the time it is crafted, adding up to a particular result at a particular time. Yes, there are a few things I might "tweak" about pipe scaling and the action design were I to go around again with this organ, but fundamentally, I am quite pleased with the results we got at Princeton. We did not know how the room would be after its remodeling nor how the room would "receive" this organ. Happily the acoustical results exceeded my expectations for a room of its size and shape insofar as it works with the tonal properties of the organ. It fills the room easily with a "full and relaxed presence." With each instrument we build we try to improve in some way, although on occasion we might regret a small decision here or there. If the ideal result for a given organ might be compared to the "search for the Holy Grail," we will probably never reach the ultimate goal, but hopefully with each instrument we do get a little closer to it.

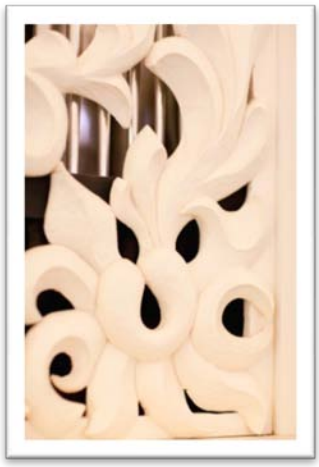
Postscript: The Paul Fritts & Co. Organ Builders shop is located in a semi-rural part of Tacoma, Washington. A total of seven craftsmen make up the work force. Paul's sister Judy Fritts designs and carves pipe shapes for the organs. Nearly every component of each organ is made locally in the shop including the casting of metal for pipes, key actions, casework and wooden parts of the organ. Future contracted organs will be installed at Vassar College, Poughkeepsie, New York; Thompson Chapel of St. Mark's Cathedral, Seattle, Washington; and in a new organ/choral hall at the University of Notre Dame, South Bend, Indiana.

David Dahl
Professor of organ emeritus at Pacific Lutheran University

From the Seminary organist:

The installation of the new organ in Miller Chapel was conceived as part of a larger project - the renovation and rededication of Miller Chapel. The plans for a new organ were thus able to evolve over a prolonged period of theological and liturgical reflection. The committee's primary objective was to come to an understanding of the functions of an organ in this seminary community.

Princeton Theological Seminary is an institution of the Presbyterian Church (USA). The primary liturgical function of an organ in a seminary rooted in the reformed tradition can be stated simply: the organ must first and foremost undergird and encourage congregational singing. The functions of the organ as accompaniment to choral singing and as an instrument for organ literature are clearly ancillary. Our operating conviction was that if all due attention were given to the primary function of the instrument, with design aspects supporting the role of the choir, the function of the organ as a performing instrument for literature would also fall into place.



And thus the form of the Miller Chapel organ is heavily bent toward the sound of the congregation's voice. The organ stands in the same room as the singers. The disposition allows for a wide range of accompanying possibilities. The concern for supporting congregational song is borne out in the two full principal choruses and in the presence of two distinct mixtures on the Great division. It was recognized that mixtures designed for contrapuntal literature have a different make-up than those designed primarily for the dull plenums needed for homophonic playing (e.g., the accompaniment of a vigorous hymn). It is notable that in the Reformed Churches of the Netherlands many organs were built (or rebuilt as the case may be) primarily for the accompaniment of robust singing. These organs tend to have mixtures which markedly favor homophonic textures - mixtures which may also obscure contrapuntal lines. on the Miller Chapel organ the Great Scharff represents the mixture particularly suited for homophonic accompaniment. The possibility of adding the Tierce rank to the Swell Mixture accomplished some of the same effect.

In the end, it was our desire to present to the seminary community an instrument of consummate beauty and integrity which would inspire a striving for excellence in the broader church which the seminary serves. We saw in Paul Fritts a craftsman who builds upon the native strengths of the organ. We sought to give him freedom to flesh out in an instrument the functions we would call froth from the organ.

Paul, in his interview with David Dahl, recognizes that there are inherent benefits in the limitations one encounters as one goes about one's art. I fully concur. The organ as it was proposed and eventually built by Paul Fritts has broad capabilities, and also recognizable limitations. It is incapable of fulfilling all the instrumental musical requirements of daily worship at Miller Chapel. Such a statement is not only prudent but, once acknowledged, also liberating. The organ does not need to "do it all." The seminary community represents many indigenous traditions beyond the Western tradition in which the organ originally blossomed. The presence of this instrument instructs all of us to pursue other musical traditions with eh same authenticity and integrity, whether this means the employment of piano, conga drums, bamboo flute or Hammond organ. Conversely, we are free to build and use the pipe organ according to it's native strengths.

The Miller Chapel organ project is thus not a regression to some rigorously pure Reformed dogma of worship music. (Indeed, such a proposal would eliminate the construction of an organ at all!) Rather, this project is an attempt to build upon the strengths of a developing and living Reformed tradition. It is an attempt to build on the native strengths of the pipe organ as a liturgical instrument in a thoroughly modern

and enlivening way. now that the instrument is in its place, it will be the calling of generations of organists to have the wisdom and grace to discern when this instrument is and when it is not the most appropriate means for leading the people's prayer and praise. In such a context this installation can be understood to be a progression. May it be so.

Martin Tel
C. F. Seabrook Director of Music at Princeton Seminary

Paul Fritts & Company Organ Builders: Greg Bahnsen, Robyn Ellis, Ricky Frith, Jon Hamelton, Jacob Nelson, Michael Phelau, Andreas Schonger, Peter Tomter, Judy Fritts (carver)

James Kay, Chair of Miller Chapel Renovation Committee and Organ Committee

The organ was made possible by a generous donation by Mr. Joe R. Engle, for whom the instrument is named.

The Joe R. Engle Organ
Built by Paul Fritts and Company Organ Builders (2000), Opus 20
Miller Chapel, Princeton Theological Seminary

Great		**Swell**		**Pedal**	
1. Bourdon	16'	1. Principal	8'	1. Principal	16'
2. Principal	8'	2. Gedackt	8'	2. Subbaß	16'
3. Rohrflöte	8'	3. Violdigamba	8'	3. Octave	8'
4. Quintadena	8'	4. Voix celeste	8'	4. Bourdon*	8'
5. Octav	4'	5. Octav	4'	5. Octav	4'
6. Spitzflöte	4'	6. Rohrflöte	4'	6. Nachthorn	2'
7. Quint	2 2/3'	7. Nasat	2 2/3'	7. Mixtur	VI-VIIIr
8. Octav	2'	8. Octav	2'	8. Posaune	16'
9. Tierce	1 3/5'	9. Gemshorn	2'	9. Trompet	8'
10. Mixtur	IV-VIr	10. Terz	1 3/5'	10. Trompet*	4'
11. Scharff	III-Vr	11. Mixtur	IV-VIr	11. Cornet	2'
12. Trompet	8'	12. Dulcian	16'		
13. Trompet	4'	13. Trompet	8'		
14. Bärpfeife	8'	14. Hautbois	8'		

*Transmissions from other pedal stops

Couplers: Swell to Great
Great to Pedal
Swell to Pedal

Compass: Manual: 56 notes
Pedal: 30 notes

Features:
Burnished tin front pipes
Suspended key action
Mechanical stop action with pre-set system by Solid State Lodgic Ltd.
Variable Tremulant
Wind Stabilizer
Tierce (1 rank for Swell Mixture)
Cimbelstern
Vogelgesang
Manual wind supply option
Kellner temperament