Rieger-Orgelbau, Schwarzach, Austria
Cathedral Church of St. Peter, Regensburg, Germany, 2009

It was an exceptional privilege for us to have been commissioned to build the new main organ for the Cathedral Church of St. Peter in Regensburg, Germany, especially bearing in mind that, in its 800-year history, this cathedral never possessed such an instrument. No less daunting, however, were the challenges of building an instrument of adequate size in a space of such significance for art and cultural history, an instrument that does justice to prevailing musical requirements and expectations, and simultaneously takes into consideration the architectural sensitivities of the magnificent Gothic building.

This is emphasized by the fact that it eventually took 25 years from the inception of this unique project to its actual realization. What was needed was an exceptional constellation of persons with the magnanimity for working together to mutually find the optimal solution, despite differing opinions and priorities.

Naturally, the first aspect is always the question, often leading to controversial debate, on the tonal architecture of an organ. What should a cathedral organ sound like in the 21st century? One must say that there is no single correct answer to this question. And, if the question can be answered at all, it certainly cannot be done in a few sentences. This subject is far too caught up in ideology for that.

Accordingly, together with the members of the international organ committee, we posed a somewhat different question: **what should the new organ be able to do and what would be the appropriate musical expectations for the instrument?** In so doing, it soon became clear that one would need a multifaceted, versatile instrument that would accommodate our ways of listening to music today, both for liturgical use and concert practice. It is simply a fact that, nowadays—and this distinguishes us from previous centuries—we do not just want to hear the currently contemporary style of music, but enjoy listening to a wider repertoire of good music from the past.

The tonal considerations taken into account for this organ are mirrored, we trust, in the choice and combination of stops, their scaling and voicing, as well as their allocation to the different divisions of the organ. Each of the three large manual divisions is based on a 16-foot foundation, broadened by a large number of variously colored 8-foot stops, an appropriate superstructure of mutation registers, and numerous reed stops of varied timbres.

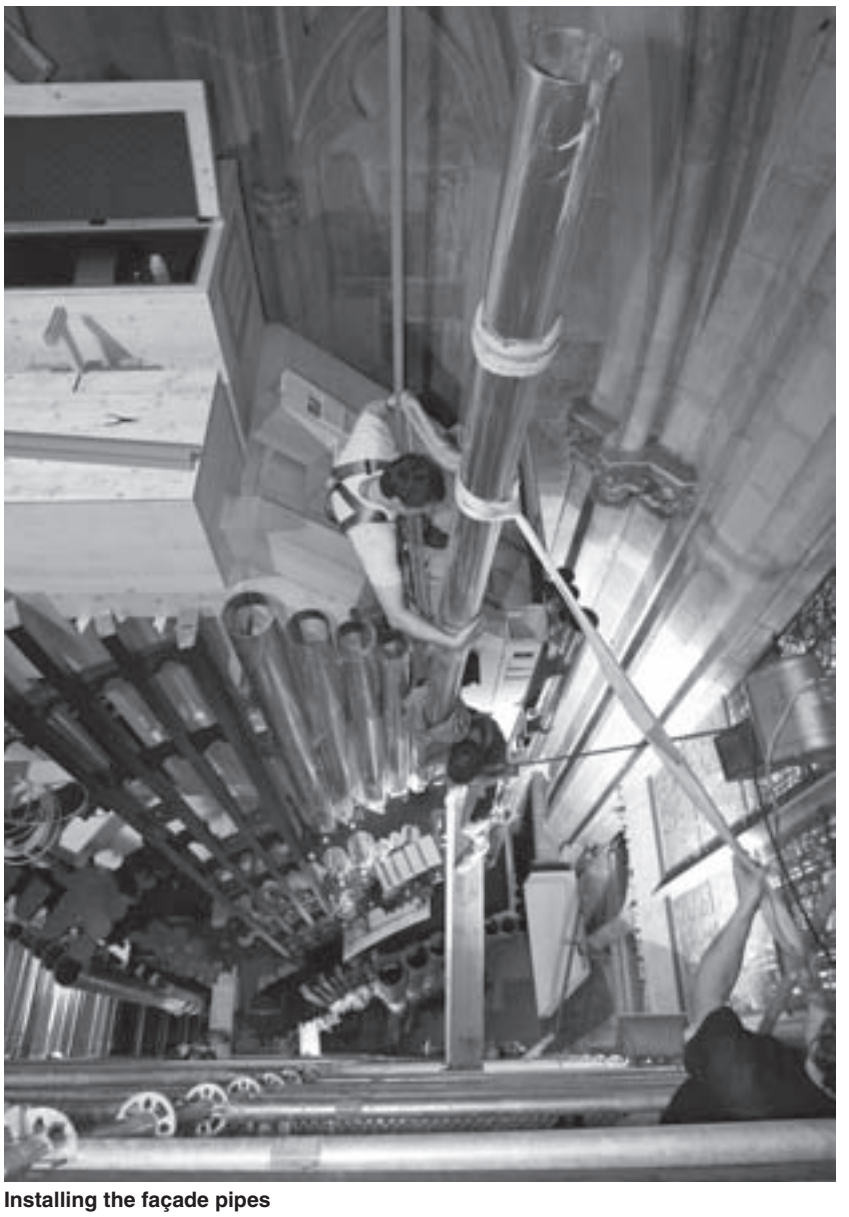
The dynamic breadth of the instrument is increased by the balance achieved between the stops with their individual characteristics and the enclosure of the "small Great Organ" (i.e., the Positiv) in a swell box. The Solo division complements this musical structure by adding a tonal crown of distinctive solo voices and a powerful ensemble of reed stops. All this is underpinned by a sonorous Pedal division, rich in fundamental tone, which gives the organ a calm, supporting foundation.

Three requirements were set for the exterior appearance of the organ: it had to be in a "**modern**" style, "**as small as possible**," and, for spatial reasons, was not to stand on the floor nor on a gallery, but be "**suspended**" from the vaulting! These requirements led, after various planning phases, to the design that has now finally been constructed.

Modern

We expressly did not attempt to include elements from the building in the design, but instead aligned the organ's design to the architecture by creating a structural form emphasizing verticality and radiating lightness. As is easy to see, this meant avoiding visible casework as far as possible. Despite this, following tonal tradition, a complete case of solid oak is hidden behind the pipe façade.

Elevator to the left of the façade



Installing the façade pipes

The electric console

As small as possible

This organ is as small as possible, and simultaneously as large as necessary. With a height of 60 feet, a width of 25 feet and a depth of 8.2 to 13.4 feet, this instrument has majestic proportions. Nevertheless, in the visual space of the cathedral, the organ appears to be made of filigree. The specific, curved and tapering layout conveys to the viewer the impression of an organ case of modest depth but, simultaneously, one incorporating movement. This impression is strengthened further by fan-shaped elements that open stepwise to form the optical basis for the greater part of the façade pipes, in addition to defining the view of the case from below.

The separate tonal divisions of the organ are arranged in five stories, one above the other, with the mechanical console situated in the middle, both for aural reasons and the technical requirements of the key action. The middle of the lowest level is devoted to the Solo Organ, which is flanked on both sides by the windchests of the Pedal Organ. The second level, directly above the Solo, houses the enclosed Positiv Organ and is followed by the third level with the console. The Great Organ (Hauptwerk) is positioned above the console, with the Swell Organ situated in the top story. On looking closely, one can recognize this arrangement of the tonal divisions in the organ façade.

The first of the organ's two independent wind systems is positioned above the roof of the Swell Organ (right at the top), with the second being positioned behind the Solo Organ (right at the bottom). Separately from one another, the two wind systems provide stable yet natural "breath-like" wind to the upper and lower divisions of the organ respectively.

The organ possesses two independent consoles: the main console integrated into the structure of the organ, and a general console placed in the sanctuary of the church. The two are functionally identical and both can be used for playing the existing Choir Organ (30/II). The main console is provided with pure mechanical key action and mechanical couplers, whereas the complete key and stop actions, and also the control of the organ's swell boxes from the general console, are purely electrical. The innovative REA (Rieger Electronic Assistant) system, developed recently by us, is used for this.

The suspended organ

As is known, this is not the first hanging organ. However, with its 80 stops and weight of 37 tons, it is surely the largest of its kind. To achieve this, it was necessary to introduce a steel suspension structure into the loft of the cathedral. To this structure are attached the four steel ca-

Fan-shaped elements of the Positiv façade

The steel suspension structure

bles, each 1.18 inches thick, from which the organ is suspended, notably without also being attached to the wall. Attaching the organ case to the cathedral walls was not allowed by the heritage authorities, who insisted that the historical structure of the cathedral should not be changed.

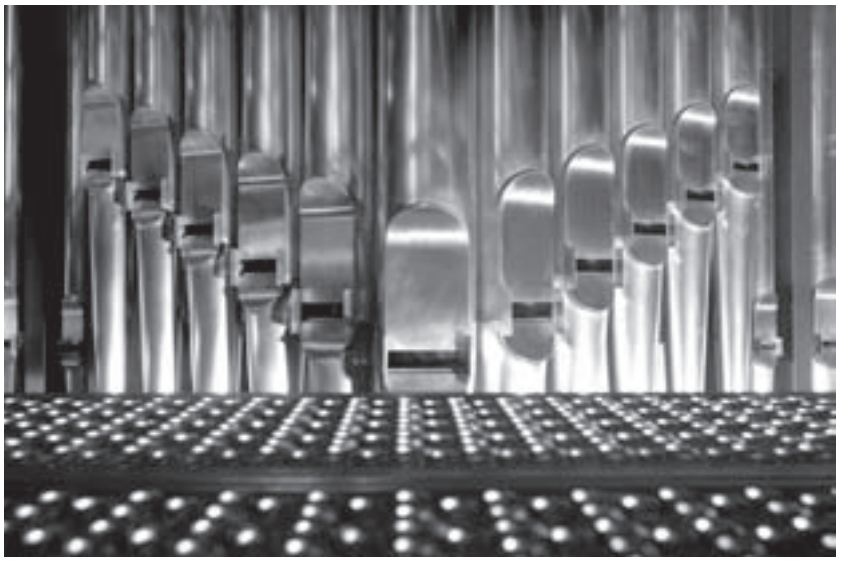
Access to the organ's main console, 49 feet above the floor, presented a further technical challenge. Given the heritage considerations, you have probably already guessed it correctly: there is no such access possibility from the cathedral. After considering the different options, we finally decided to plan for an elevator inside the organ. Now, the organist can "be raised" to the console comfortably in two minutes by the Panorama elevator while enjoying the unique view of the imposing cathedral nave.

The elevator's 2.6 x 2.6 foot glass cabin is normally parked directly next to the console and is therefore hidden from view. Only when in use is a door on the side of the organ opened, to enable the cabin to move horizontally about 6.5 feet on a telescopic arm, out of the organ case, before descending 49 feet to the floor, without any support except the cable on which it hangs.

In building this unique organ, we have moved a step beyond our previous tonal, creative, and technical traditions. We trust that the exceptional goals we set ourselves have been met, namely, creating an organ that will be convincing for generations to come, and that will, in a certain sense, indicate the way forward; and that its sound and its visual appearance will delight many listeners and visitors and inspire many musicians.

This is the wish of all the employees of the Rieger firm, who spent countless hours creating this instrument.

—Wendelin Eberle
Rieger-Orgelbau



View of the front pipes from the scaffolding

Photo credit: Michael Vogl

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GREAT (I) C–c4

16′ Principal
16′ Bourdon
8′ Principal
8′ Bourdon
8′ Doppelflöte
8′ Gambe
5⅓′ Großquinte
4′ Octave
4′ Spitzflöte
3⅕′ Großterz
2⅔′ Quinte
2′ Superoctave
2⅔′ Mixtur major IV–VI
1′ Mixtur minor V
8′ Cornet V
16′ Trompete
8′ Trompete
4′ Trompete

POSITIV (II) (expressive) C–c4

16′ Quintatön
8′ Principal
8′ Holzgedackt
8′ Flûte harm.
8′ Salicional
8′ Unda maris
4′ Octave
4′ Rohrflöte
2⅔′ Nasat
2′ Octave
2′ Waldflöte
1⅗′ Terz
1⅓′ Larigot
1′ Sifflöte
1⅓′ Scharff V
½′ Cymbel IV
16′ Bassklarinette
8′ Trompete
8′ Krummhorn
Glockenspiel
Tremulant

SWELL (III) C–c4

16′ Bourdon
16′ Salicional
8′ Diapason
8′ Cor de nuit
8′ Flûte harm.
8′ Viole de Gambe
8′ Voix céleste
4′ Prestant
4′ Flûte oct.
4′ Viole
2⅔′ Nazard harm.
2′ Octavin
1⅗′ Tierce harm.
1⅓′ Plein Jeu V
16′ Basson
8′ Trompette harm.
8′ Hautbois
8′ Voix humaine
4′ Clairon harm.
Tremulant

SOLO (IV) C–c4

16′ Chamade
8′ Chamade
4′ Chamade
8′ Flûte harm.
8′ Grand Cornet V
8′ Clarinette
8′ Tuba episcopalis
Campane

PEDAL C–g1

32′ Principalbass
16′ Principal
16′ Violon
16′ Subbass
10⅔′ Quinte
8′ Octave
8′ Cello
8′ Gedackt
4′ Choralbass
2⅔′ Mixtur II–IV
32′ Bombarde
16′ Posaune
16′ Fagott
8′ Trompete
4′ Schalmey

Mechanical Couplers
II/I, III/I, IV/I, III/II, IV/II,
I/P, II/P, III/P, IV/P

Electric Couplers
II/I, III/I, IV/I, III/II, IV/II, IV/III
III/I 16′, III/I 4′, III/II 16′
III/II 4′, III/P 4′
Sub and super in each division
3 free couplers

Accessories
Rieger combination system:
20 users with 1000 combinations each with 3 inserts each
Archive for 250 tracks with 250 combinations each
4 adjustable Crescendi
Sequencer
Free couplers
Copy functions
Repeat functions
Division cancel
General cancel
Sostenuto

Consoles
Main console (mechanical)
General console (electric)

Additional features
Rieger tuning system
Rieger replay system
Connection of the Choir Organ
Divided Pedal at the general console
Wind pressures:

Great	110 mm
Positiv	95 mm
Swell	100 mm
Solo	90/130 mm
Pedal	105 mm