

THE POPE BENEDICT ORGAN

Background Information and Specification

We first saw the unique space housing this organ shortly before the renovation of the church began which continued during the last decade of the 20th century. The former head of the monastery, prelate Wilhelm Schätzler, the monastery music director, Prof. Josef Kohlhäufl, the monastery organist Prof. Norbert Düchtel, and the certified organ expert Karl Norbert Schmid originally envisioned a new organ in the original case with 37 stops, three manuals and pedal.

In 2005 new ideas relating to the optimal size of a new organ in the Old Chapel were discussed, taking into consideration the volume of the chapel of over 400,000ft³ (11,500 m³) with a seating capacity of 300 to 500.

«The dimensions of the existing case set limits. Normally, given the spatial and acoustical characteristics of the room, a larger organ with greater reserves would have been appropriate. However, the limitations imposed by the original case will have to be a major factor in the decision making process» (Hermann Mathis, June, 2005)

In 2005 the existing case was meticulously measured and examined, which uncovered several alterations that had been undertaken over a long period of time. The cambered frame of the original console with its recess bay, and various engravings contained in wood fillers and on the console itself were all missing. The top and side enclosures of the oberwerk were missing, as well. Within the case there was an altered supporting structure that was also removed.

The question soon arose of how Weiss managed to accommodate the huge pipe work of the pedal with three 16' stops within the available pedal towers. The maximum height of pedal pipes starting at the lower block is over 14ft. (4.4 meters); however, the tallest pipes of the 16' stop are much longer. A 16' Violon Bass pipe measures almost 17ft. (5.1 meters). Cutouts in the architrave reveal that the four largest pipes of the 16' Principal Bass were mounted directly on the outer wall of the case and reached below the upper point of the oberwerk.

In keeping with the scale of the original case the specification of the new organ is, with few exceptions, the same as that of Andreas Weiss. It has 40 stops on two manuals and pedal, and, especially because of the dual manuals the instrument possesses an extensive range of organ sound potential.

Building the New Organ

Based on the detailed plans for the original case the planning for the specification began with designs for windchests adapted to the projected overall dimensions. Already on 8. August, 2005, work began in the Mathis Orgelbau studios on the individual elements of the organ, especially the pipe work.

The wind supply is situated in the base of the case with the blower on the left and the bellows of the hauptwerk on the right. The reservoir for the entire instrument is located behind the console.

The arrangement of the pipes in the manual works was uncomplicated, but the available space in the pedal towers was very limited. For this reason Weiss had positioned the largest pipes of the 16' Principal Bass outside of the case on its rear wall as they are shown in both the horizontal and lateral views of the layouts. Cutouts at the base of the rear wall of the housing as well as notches in the beam construction indicate that some of the pedal stops were also situated on the rear wall of the church in a separate case.

In the course of optimizing the specification it was decided to install toy stops popular in the Baroque and late Baroque. These stops were deemed appropriate considering the popular preferences at the time of the original appointments to the church and in view of the fact that former organs in the church had been equipped with such stops.

Glockenspiel	The glockenspiel with 39 tuned, cup-shaped bells (c° to d''') and mechanically activated action is designed according to historical models stemming from the Baroque organ builder Stumm.
Rossignol	The Rossignol is in the form of a lotus flue pipe fitted with a piston and is positioned on its own wind chest. Both the stroke of the piston and the power supply of the sound valve are governed mechanically in a manner similar to Baroque player clocks using revolving cylinders.
Kuckuck (cuckoo)	The sound of the kuckuck is produced with two tuned wooden pipes which are mechanically operated similar to the Rossignol with revolving cylinders.
Vogelgesang (birdsong)	The vogelgesang produces its sound with three pipes standing in water.

The Console

The organ bay was reconstructed according to traces remaining on the existing case. The keys on pillar supports are attached to the organ case. The stop boards, the music stand, and the adjustable organ bench were completed in walnut.

Keyboards	<p>The organ has 2 two keyboards of 58 keys for Hauptwerk (I) and Oberwerk (II) with a range from C-a'''. The white keys are of bone and the black keys of ebony.</p> <p>The 30 pedal keys ranging from C-f' are double cambered and completed in walnut with ebony for the black keys.</p> <p>The key cheeks of the manual keyboards are of walnut. The style of the applied forms and shapes is borrowed from the cornice crowns of the stucco work in the church.</p> <p>The coat of arms in shell white and gold of Pope Benedict XVI, to whom the organ is dedicated, is positioned above the console.</p> <p>The music stand contains the coat of arms of the collegiate church and its canon, H. H. Hubert Schöner.</p>
Drawknobs	<p>The drawknobs are distributed on frames in 2 vertical rows each on either side of the manual keyboards. The form of the knobs is derived from comparable Baroque models and they are of ebony. The names of the stops are engraved on the front faces of bone in black, except for the stops not in the original Weiss organ, which have red lettering.</p>
Couplers	<p>The couplers function either as foot pedals or stop knobs: II-I, I-PED, II-PED.</p>
System	<p>The sound and stop actions are exclusively mechanical.</p>
Actions	<p>The manual actions are equipped with self-tensing mechanics. The trackers are of selected alpine spruce and the roller board of seamless extruded steel shafts with spot-welded rocker arms. The trace-rods are of solid wood and the stop trundles of wrought iron.</p> <p>In addition the stop action has been equipped with the necessary electrical components for a setter board.</p>

Installation and Voicing

In January of 2006 the Old Chapel organ, built in 1974, that was designated to be replaced was fully dismantled, with the exception of the case remaining on the organ gallery. A selected number of reclaimable pipe ranks were removed to the Mathis Orgelbau workshop in Näfels. The renovation of the gallery and the space containing the organ was completed in February and March enabling the first stage of the installation process. In the months of May and June the church painter treated the surfaces of the organ case after which the second stage of installation began with mechanical adjustments and the delivery of the pipes. The instrument was voiced in the months from July to September.

Case (1791)	Width: 20ft. 8in (6,30m) Height: 29ft. 6in (9,20m) depth: 6ft. 4in (1,94m).
Prospekt pipes	The arrangement of pipes on the prospekt is visually dominant: The hauptwerk is in the middle with five sounding ranks (and two mute ones) capped by the oberwerk and flanked by the pedal in the harp ranks on either side.
Console	2 manual keyboards of 58 keys each C - a'''. 1 pedal keyboard of 30 keys c - f. 47 stop knobs for 40 stops, 1 tremulant, 3 couplers and three toy stops (Glockenspiel, Vogelgesang, Nachtigall). 3 foot pedals for the couplers, 1 piston as sequencer for the setter board, 1 foot pedal «Zungen ab» («tongue down») as well as 1 foot pedal for the toy stop «Kuckuck» (cuckoo).
Windchests	6 windchests in all: 2 for the hauptwerk, 1 for the oberwerk as well as 3 for the pedal.
Wind pressure	Hauptwerk: 74 mm water column Oberwerk: 68 mm water column Grosspedal: 82 mm water column Kleinpedal: 90 mm water column
Stops	40 sounding stops in all: 35 labial, 5 reed. As well as 4 toy stops: Glockenspiel, Vogelgesang, Nachtigall, Kuckuck.
Pipes	Altogether 2448 pipes: 2100 metal and 348 wooden.
Longest pipe	C of the 16' Violon Bass in the pedal: 15ft.10in. (4,83 m) excluding pedestal.
Shortest pipe	a''' of the Quint 1 1/3' in the oberwerk: 0.28in (7 mm) excluding pedestal.
Temperament	Neidhardt III («for a city») 1724.

Specification

<u>I. Hauptwerk</u>		C - a ^{'''}
1.	Coppel	16'
2.	Principal	8'
3.	Gamba	8'
4.	Qvintadena	8'
5.	Coppel	8'
6.	Portun	8'
7.	Octav	4'
8.	Flautten	4'
9.	Flaut travers	4'
10.	Quint	2 2/3'
11.	Superoctav	2'
12.	Tertiana	1 3/5'
13.	Mixtur major III-IV	2'
14.	Mixtur minor III	1'
15.	Trompetten	8'
<u>II. Oberwerk</u>		C - a ^{'''}
16.	Coppel	8'
17.	Solicinal	8'
18.	Unda maris ab f°	8'
19.	Principal	4'
20.	Dulciana	4'
21.	Spitz Flauten	4'
22.	Nasard	2 2/3'
23.	Octav	2'
24.	Flascholett	2'
25.	Terz	1 3/5'
26.	Qvint	1 1/3'
27.	Mixtur IV	1 1/3'
28.	Krummhorn	8'
29.	Hoboe	8'
	Tremulant	

	<u>Pedal</u>	<u>C - f'</u>
30.	Principal-Baß	16'
31.	Violon-Baß	16'
32.	Sub-Baß	16'
33.	Qvint-Baß	10 1/3'
34.	Octav-Baß	8'
35.	Gamba-Baß	8'
36.	Coppel-Baß	8'
37.	Superoctav	4'
38.	Mixtur IV	2 2/3'
39.	Bombard	16'
40.	Trompetten-Baß	8'