

In The Pipeline



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Frauenkirche Dresden

Dresden is the capital city and, after Leipzig, the second-largest city of the Free State of Saxony in eastern Germany. It is situated in a valley on the River Elbe, near the border with the Czech Republic.

Although Dresden is a relatively recent city of Germanic origin followed by settlement of Slavic people, the area had been settled in the Neolithic era by Linear Pottery culture tribes ca. 7,500 BC. Dresden's founding and early growth is associated with the eastward expansion of Germanic peoples, mining in the nearby Ore Mountains, and the establishment of the Margraviate of Meissen, a medieval principality.

Dresden in the 20th century was a major communications hub and manufacturing centre with 127 factories and major workshops and was designated by the German Military as a defensive strongpoint, with which to hinder the Soviet advance. Being the capital of the German state of Saxony, Dresden not only had garrisons but a whole military borough, the Albertstadt.

During the final months of the Second World War, the bombing of Dresden by the Royal Air Force and the United States Army Air Forces between 13 and 15 February 1945 was devastating. On those days 773 RAF Lancaster bombers dropped 1,181.6 tons of incendiary bombs and 1,477.7 tons of high explosive bombs on the city. The inner city of Dresden was largely destroyed. The high explosive bombs damaged



Dresden Frauenkirche today

buildings and exposed their wooden structures, while the incendiaries ignited them, denying their use by refugees.

On the morning of February 15, 1945 – two days after the devastating bombing raid on Dresden – the burnt out Frauenkirche finally collapsed.

Although it had apparently survived the direct attack and fire storm, unlike the majority of buildings in the city centre, the extreme heat that had been generated finally took its toll. In the early hours of February 14, when the fire reached the church, not only were the wooden galleries and pews consumed by the blaze, more and more sandstone exploded from the piers until they could

no longer bear the immense weight of the dome.



After the Second World War, Dresden became a major industrial centre in the German Democratic Republic (former East Germany) with a great deal of research infrastructure. Many of the city's important historic buildings were reconstructed, including the Semper Opera House and the Zwinger Palace, although the city leaders chose to rebuild large areas of the city in a "socialist modern" style. Some of the ruins of churches, royal buildings and palaces, such as the Gothic Sophienkirche, the Alberttheater and the Wackerbarth-Palais, were razed by the Soviet and East German authorities in the 1950s and 1960s rather than being repaired. Nonetheless, compared to West

Germany, the majority of historic buildings were saved.

Dresden has experienced dramatic changes since the reunification of Germany in the early 1990s. The city still bears many wounds from the bombing raids of 1945, but it has undergone significant reconstruction in recent decades. Prominently, the Dresden Frauenkirche, a Lutheran church, began to be rebuilt after the reunification of Germany in 1994. Both exterior and interior reconstruction were completed by 2005, a year before Dresden's 800th anniversary, notably by privately raised funds. The gold cross on the top of the church was funded officially by the British people and the House of Windsor. The urban renewal process, which includes the reconstruction of the area around the Neumarkt square on which the Frauenkirche is situated, will continue for many decades, but public and government interest remains high, and there are numerous large projects underway—both historic reconstructions and modern plans—that will continue the city's recent architectural renaissance.

Today Dresden has nearly 560,000 inhabitants.



The Frauenkirche remains a sacred place despite the great diversity of activities on offer. It is an Evangelical Lutheran church and as such, with its sense of ecumenical openness, invites all to experience the Christian faith, whether through the experience of being present in the church, by attending church and prayer services, through music or by listening to sermons and readings.

In the light of the damage received during WWII, largely still visible for all to see, the reconstructed Frauenkirche in Dresden issues a warning, but at the same time also announces the power of a new beginning and of peace. The aspects of remembering, reconciliation and peace create the backdrop and atmosphere for the daily life within the Church. As part of the Church of the Cross community, the Frauenkirche feels a strong obligation to tend the special relationship to Coventry Cathedral and its reconciliation, as well as to cooperate with the other Church of the Cross communities both at home and abroad.

The Frauenkirche does not have its own community, but rather forms temporary communities according to the activities offered. The church programme and outreach has been designed to this purpose. There are, of course, thematically linked blocks of events such as a series of sermons, musical recitals or a series of lectures, but each event can still be visited independently. The Frauenkirche Foundation is responsible for maintaining the sacred character of the church.

The name "Frauenkirche", which literally translates as "Our Lady's church", is by no means unusual: You will find a Frauenkirche or Liebfrauenkirche in around 100 cities throughout Germany, and in other European countries such as Belgium or France, where they are called "Notre Dame", or "Our Lady", and refer to Mary, the mother of Jesus. The original name of the Dresden Frauenkirche was 'Unserer Lieben Frauen', which dates back to the time the church was founded in the Middle Ages. The name was shortened over time to 'Frauenkirche' and even retained after the Reformation despite the fact that the Protestant Church does not practice adoration of the Virgin Mary.

One of the eight bells of today's Frauenkirche is a bell that had already rung in the church's predecessor between 1734 and 1925 and is called Maria.

The Frauenkirche is regarded as the symbol of protestant church construction. The evangelical concept of faith and church service has been translated here into architectural form. The brave idea of a centralised church room integrated into an octagonal outline underneath a tremendous stone dome goes back to Geore Bähr, the first architect of its kind, who translated Luther's convictions into stone.

After the Gothic church had to be temporarily closed at the beginning of the 18th century on account of it being in a state of disrepair, the Council of the City of Dresden decided to erect a completely new building in 1722. They



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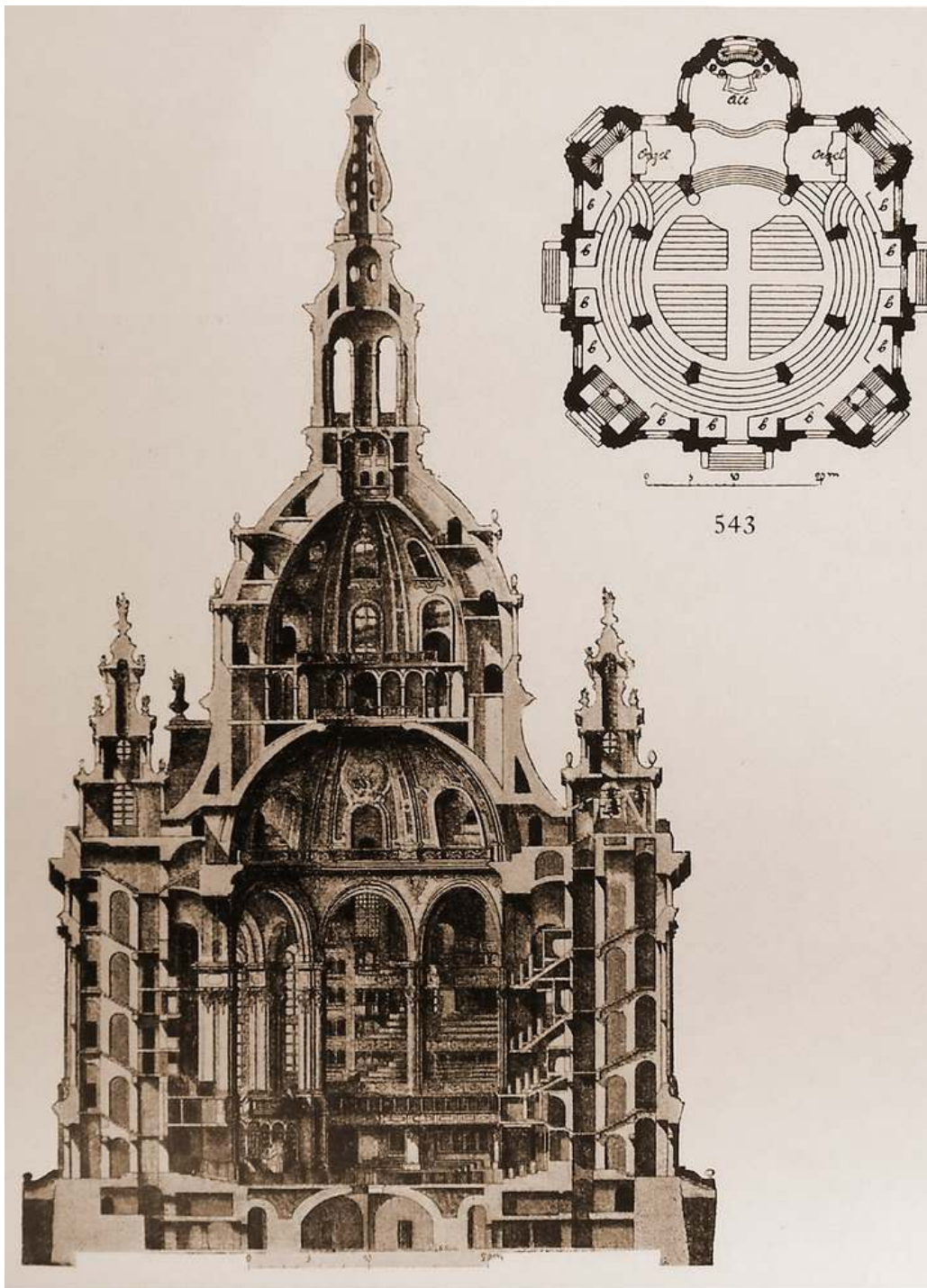
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account of opposing opinions. It was finally decided to erect a central building with a dome on a square base. As a parish church it was the responsibility of the surrounding parishes to finance the building work, which meant that the work was always in financial straits. The church was consecrated in 1734 whilst still under construction – without an organ and with only a provisional altar. The stone dome was completed in the following years up to 1738. In 1743 the building was finally completed with the erection of a stone lantern. Bähr's goal

commissioned the city master carpenter George Bähr to build the church. He planned a masterpiece whose unmistakable dome was to become a landmark of the city of Dresden.

The foundation stone was laid for the new Frauenkirche on August 26, 1726 after four years of planning. The commissioned architect George Bähr had previously submitted several drafts and had had to carry out corrections on

that the Frauenkirche be 'like a single stone from the ground to its highest point' had been achieved. It became a masterpiece entirely made out of stone.

The form of the stone, bell-shaped dome of the Frauenkirche is unique. However, it was the subject of repeated discussions both during and after its completion. The original plans submitted for ratification by George Bähr in 1722 initially showed a copper-plated wooden dome, but this

variant proved too expensive. Bähr thus suggested building the dome partly or completely of stone. The high load and questionable resistance to weathering of such a dome were, however, regarded as problematic. Expert opinions were commissioned and George Bähr questioned several times before a contract was concluded on the construction in stone in 1733. The dome was finished in 1736, but cracks soon appeared in the inner piers and connecting arches. The City Council called for new expert opinions on its stability. These arrived at contradictory results: from a commendation of Bähr's work through to a call for the complete demolition of the dome. In the end, the Council decided to leave the dome as it was and erect a lantern that was lighter than the one originally planned by Bähr. Unfortunately, Bähr did not live to see its completion; he died in 1738.

The Frauenkirche is crowned by a circular dome with a stone lantern. This dome is distinctive on many counts. Built totally of sandstone, it weighs in at more than 12,000 tonnes. It is said to be the largest stone dome north of the Alps thanks to its height of 24 m and diameter of 26 m. The dome's shape is also unique with the curved base giving it a bell-like look, which is why the Frauenkirche was also nicknamed the 'Stone Bell'. On top of the dome you find the "lantern", to which all visitors who want to enjoy the spectacular views from the viewing platform climb up to. Because of the open structure they can look to all

four cardinal directions. Even further up is the lantern cover on top of which the new tower cross has been placed.

Donated in the spirit of reconciliation by the British people, this is a replica of the old tower cross which was recovered from the rubble and is still displayed in the nave. It is a symbol of peace.

The Frauenkirche is a sandstone church erected on a comparatively small base area. The master builder George Bähr opted for a centralised building with an octagonal outline, i.e. the lower part of the church has the form of an octagon. The structure is topped by four corner towers and crowned by a circular dome with a stone lantern. Seven doors lead into the main church; three of which enter into the nave and four via staircases in the four towers up to the galleries. George Bähr decided that none of these doors should be a special main entrance as all visitors should feel equally welcome no matter where they came from.

Sandstone is the building material used



The Elbe River flows past the Elbsandsteingebirge quarries

for the Frauenkirche and many other buildings in Dresden and its surroundings. This material was so popular because it is very strong, easy to work and available locally, among other things. Last but not least, it is also an optically attractive building material.

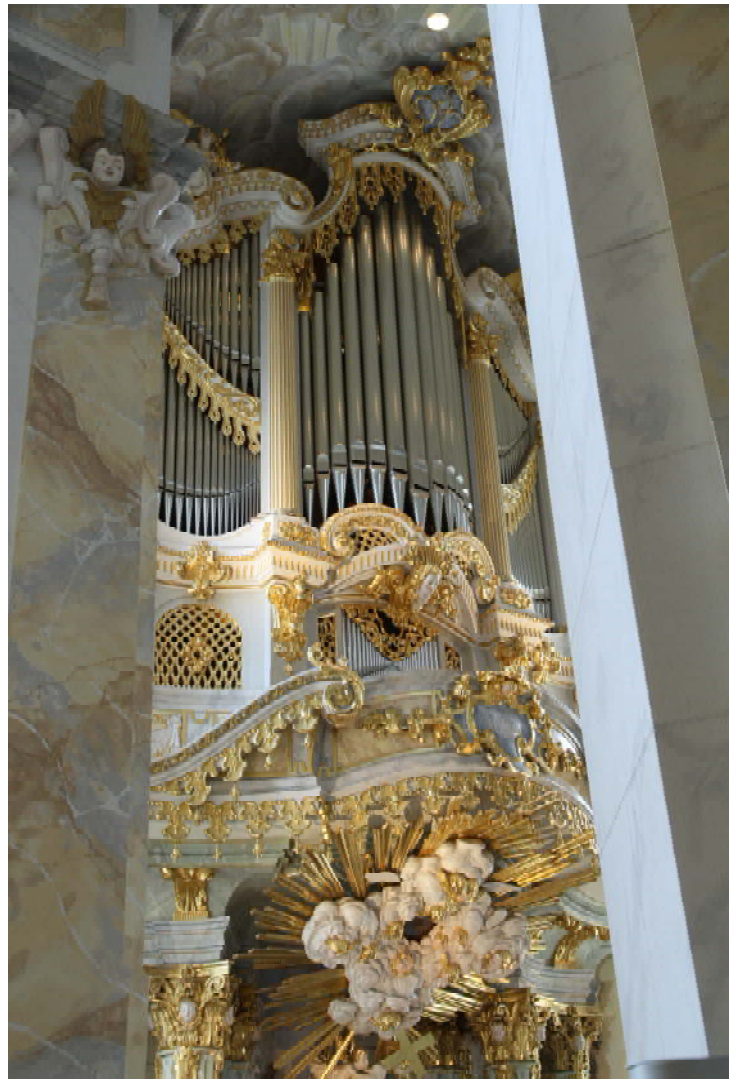
The sandstone for Bähr's Frauenkirche as well as the rebuilt church comes from the Posta quarries in the Elbe Sandstone Mountains (Elbsandsteingebirge) 50km from Dresden. Whereas mining the sandstone was very hard work in the 18th century, the latest technical equipment is a great help today. Stone blocks are now either control-blasted or cut using a high-pressure water jet. Computers help cut the blocks and contours precisely, though these devices cannot fully replace the stonemasons, who are still needed to modify and finish the ashlar.

In Bähr's time, the sandstone was brought to the Dresden Neumarkt by boat. The quarry and the church to be built were both located near the River Elbe and it stood to reason that this means of transport be used. Unlike 200 years ago, when the broken stones were mostly hewn on site, the raw material nowadays is processed in workshops and delivered in prefabricated blocks by overland routes only.

The organ in Bähr's Frauenkirche was installed in 1736 and deemed one of the greatest works of Gottfried Silbermann. It had 43 registers over three manual and the pedal divisions. Johann Sebastian Bach gave a concert on it shortly after its

installation. However, by 1769, the pitch of the organ was changed for the first time. A further retuning was carried out in 1819, because the organ, which was developed for the sound of baroque chamber music, stood 'a half a tone too deep in relation to the present instrumental ambience'. Also in the period that followed, the organ was expanded several times and restructured so that its original sound form has not been handed down. The organ together with the organ case was completely destroyed in 1945. At that time it was a five-manual organ of 80 registers.

The new organ was built in 2005 by Daniel Kern, an organ-builder located in Strasbourg, France, a city at the



crossroads of Europe which enjoys various musical cultures, especially those of France and Germany. Frequent contacts with organists of international repute and experts in organ science have contributed to the flowering of Kern as one of the major organ manufacturers in the world.

The Kern Company is internationally renowned thanks to its restoration and reconstruction of many instruments of the great pipe-organ builders such as Clicquot, Cavaillé-Coll, Silbermann, to name but a few of the most famous builders of the 18th and 19th century. The Kern Company has also been responsible for the reconstruction and restoration of several of the great cathedral organs in France and other countries especially in Germany, the United States and Japan.

The Dresden organ impressively combines the organ building principles of the brothers Gottfried and Andreas Silbermann. The instrument is tonally enriched by the typical sounds of a French romantic organ work, so that the new organ possesses an impressive versatility. As a result, the organ works of Johann Sebastian Bach can be played just as authentically as the symphonic organ works of César Franck. The extremely adaptable instrument possesses 69 sounding stops which are distributed over four keyboards and pedal. Of the 4,876 pipes, of which only a small part is visible, the smallest measures less than one centimetre and the biggest measures over five meters.



Instead of rewriting the story of the new organ, I will let the organ builder tell his own story. Errors in the translation are my fault, so please excuse them.

When we were asked by the Stiftung [Managing Board] of the Dresden Frauenkirche in the fall of 2002 about a cost estimate for building of the new organ, the theme was to realise a new work in the essence or approximation of Gottfried Silbermann. However, we were told that the new work should not be a Silbermann copy, but the style should serve only as a base reference.

After many years of reflection and negotiation, a fundamental issue was



Hauptwerk



Oberwerk

finally decided by the Organ Commission: that under no circumstances were we to build a rigorous copy of the destroyed organ of 1734.

In the course of time, the work of Gottfried Silbermann was transformed by many changes and enlargements. When destroyed in 1945, the main console had five manuals and the organ had 80 stops. The original console as well as all Silbermann windchests had already been replaced in successive rebuilds. Also the original pipe work was changed to a large extent.

When I came to Dresden in 2003 to get a first impression of the project, the church was still under construction and covered by a lot of scaffolding. On one of the scaffoldings was a large poster stating “Creating peace, building bridges”. The touching notice rang an emotional bell in my mind. From that moment on, it was clear to me that creating a musical, cultural and peaceful bridge would consist of building an organ in which the Saxon (by Gottfried Silbermann), the Elsässiche (by Andreas Silbermann) and the Parisian organ culture (by Cavaillé-Coll) can be heard together.

I was never impressed with the idea of a creating a strict replica of the Gottfried Silbermann organ, especially not in the case of Dresden, because a large work by him has been preserved and can be heard very close to the Frauenkirche in the Hofkirche. I thought that my proposal should also offer new horizons and new possibilities for the musical life of Dresden rather than try to recreate something already available in the





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Claudia Sosin
Mezzo-Soprano



Tomasz Nowak
Organ and Piano

city. The organ commission understood my philosophy and decided to choose the Kern Pipe Organ Company (Daniel Kern Manufacture d'Orgues) for this work.

The new organ has got four manuals. The first manual is the Hauptwerk the second the Oberwerk, the third the Récit Expressif in the style of Cavaillé-Coll, and the fourth the Brustwerk.

The layout of the divisions in the case (faithfully reproduced according to the design by Bähr) is very close to the composition of Gottfried Silbermann's original scheme.

The chest movement and the small and large pedal divisions are in the lower part of the case, the Hauptwerk behind the display of the front pipes, the Oberwerk on the main frame above the Hauptwerk, the Recit Expressif in the same level as, and 60cm directly behind, the Oberwerk.

The console mechanics for all four manual divisions is built with a suspended action in the classic style and made only of traditional materials (wood angles, shafts, trackers, etc.). The Récit Expressif has iron mechanics. The couplers can all be used mechanically, but there is also the possibility to use some couplers with a console aids, mainly for large romantic pieces that need a lot of couplers and registers. For the Brustwerk we have built a mechanical transposer which allows this division to be used for the

accompaniment of older music requiring 415 Hz.

The stop action is purely electric with a combination setting system which has many possibilities. The wind chests are made as slider chests with tone cells in the classical construction made with oak wood.

The wind turbine is built in the style of Gottfried Silbermann which means a large tower with six wedge bellows behind the organ. The whole organ has the same wind pressure (about 90 mm w/s).

The pipework is made according to the classical model for the Hauptwerk, Brustwerk, Oberwerk and Pedal. The principal and the reed stops are made of high percentage tin 87,5 % and the flutes and the rabbets are more leaded.

We used Cavaillé-Coll scales and alloys to make the Récit pipes. The principals and reeds are made of tin 75%, the bourdon and flutes of 33%. For the Schwellwerk we took the organ of St-Sernin in Toulouse as a model. For the classical stops we used the scales Gottfried Silbermann and Andreas Silbermann used. The tuning is equal 442 hz at 18°.

With the Hauptwerk, Brustwerk, Oberwerk and Pedal divisions, including the adaptation mentioned above, you can achieve what the representative dome space demands:

Classical brilliance of the mixtures in the pleno, singing power of the

SPECIFICATION OF THE KERN ORGAN in FRAUENKIRCHE DRESDEN (2005)

Hauptwerk		Oberwerk		Schwellwerk		Brustwerk	
C - a''' 58 notes		C - a''' 58 notes		C - a''' 58 notes		C - a''' 58 notes	
Montre	16'	Quintade	16'	Bourdon	16'	Gedackt	8'
Bourdon	16'	Principal	8'	Gamba	8'	Prinzipal	4'
Octave	8'	Quintade	8'	Flûte harmonique	8'	Rohrflöte	4'
Viole de Gambe	8'	Salicional	8'	Voix céleste	8'	Nasat	2 2/3'
Rohrflöte	8'	Gedackt	8'	Bourdon	8'	Octav	2'
Octave	4'	Octave	4'	Flûte harmonique	4'	Gemshorn	2'
Spitzflöte	4'	Rohrflöte	4'	Quinte	2 2/3'	Terz	1 3/5'
Quinte	2 2/3'	Nasat	2 2/3'	Octavin	2'	Quinte	1 1/3'
Octave	2'	Octave	2'	Piccolo	1'	Sifflet	1'
Terz	1 3/5'	Sesquialtera	1fach	Cornet	V	Mixtur	III
Cornet	V	Mixtur	IV	Mixtur	III – VI	Vox Humana	8'
Mixtur	V	Trompette	8'	Basson	16'	Tremblant	
Cymbel	IV	Chalumeau	8'	Basson – Hautbois	8'		
Fagott	16'	Tremblant		Trompette harmonique	8'		
Trompette	8'			Vox Humana	8'		
Clarine	4'			Clairon Harmonique	4'		
				Tremolo			

Pédal	
C – f' 30 notes	
Untersatz	32'
Principal	16'
Subbass	16'
Octave	8'
Bassflöte	8'
Octave	4'
Mixture	VI
Basson	32'
Posaune	16'
Trompette	8'
Clarine	4'

4,876 pipes
68 registers
4 manuals and pedal

principal, gravity of the reeds and basic registers, colours and poetry of the aliquots and reeds, softness and clarity of the flutes and the strings.

For the repertoire of Romanticism and the 20th century, a great swell can be integrated without harming the classically oriented substance of the organ.

Principals, overblowing flutes, narrow strings and celestes lend the organ work as a whole, without dominating, the possibility of stylistic vastness in the direction of romanticism and symphony, using couplers for the entire sound spectrum.

With our new organ we would like to make a contribution to the cultural understanding and enrichment of the

Saxon musical life.

Daniel KERN
Orgelbaumeister

The Inauguration of the Dresden Frauenkirche and its new Pipe Organ took place on 30th of October 2005.

Bruce Duncan

Information for this article has been compiled from many sources including www.kernpipeorgan.com, www.frauenkirche-dresden.org and www.frauenkirche-dresden.de.