In The Pipeline

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St Peter's Cathedral

St Peter's Cathedral is the Anglican cathedral in the South Australian capital of Adelaide. It is the seat of the Archbishop of Adelaide and Metropolitan of the Province of South Australia. The cathedral, a significant Adelaide landmark, is situated on about one acre of land at the corner of Pennington Terrace and King William Road in the suburb of North Adelaide. The south front has similar features to the Cathedral of Notre Dame and the Church of St Jean-Baptiste de Belleville in Paris, including an ornate rose window above the main entrance which depicts stories of South Australia and the Bible.

William Butterfield designed the cathedral, but the long communication gap between England and Adelaide contributed to delays and disagreement. Butterfield's plans were purchased and given to Edward John Woods, of Adelaide architectural firm Wright, Woods and Hamilton, for completion. Woods changed some of the plans' materials and design, while keeping the general details as Butterfield had proposed. Woods was noted by his colleague Walter Bagot as strongly influenced by French architect Eugène Viollet-le-Duc, and had imbued a French Gothic character in many elements of its design. Bishop Short laid the foundation stone, a 13 long hundredweight (0.7 ton) block from Glen Ewin Quarry, on St Peter's Day 1869 in front of over a thousand people. Brown and Thompson contracted for the building work, which progressed slowly. The first service was held on St Peter's Day 1876, though the building was incomplete.

The women of the diocese had raised £1,200 to purchase an organ which was installed in 1877. The first part of the

cathedral was consecrated on 1 January 1878. Work began again in 1890 during the tenure of Bishop George Wyndham Kennion. Governor the Earl of Kintore laid a foundation stone, 1.5 long tons (1.5 tons) of Monarto South granite, on 27 September. Over £10,000 was spent beginning the two towers and the western part of the nave, and completing the northern porch. Building work ceased in 1894 when funds were exhausted and did not resume for some years.

A tender was awarded in 1899 to complete the nave and bring the towers to roof height. The Duke and Duchess of York (later King George V and Queen Mary) were present when the nave was consecrated and a Boer War memorial unveiled on 14 July 1901. A dedication ceremony for the towers and spires was held on 7 December 1902, and the last scaffolding removed two months later. The south porch and some temporary vestries were subsequently built, in addition to a crypt under the Lady chapel. A consecration ceremony was held on 7 April 1904; this marked completion of the cathedral's external structure. Records show that the work from the 1890s to date had cost somewhat over £25,000.

The cathedral's interior is 203 feet (61.9 m) long. The nave is 59 feet (18.0 m) wide and, at the top of the spires crosses, the cathedral rises 168 feet (51.2 m) from ground level. Hammer dressed Tea Tree Gully sandstone—from what is now Anstey Hill Recreation Park— was used

in the sanctuary, choir, transepts and part of the nave. Stone used for the quoins is lighter in colour and came from the same area as that used in the Adelaide Town Hall. The building's base and some of the interior uses stone from Glen Osmond in the Adelaide Hills. Other parts of the cathedral use stone from New Zealand, Pyrmont, New South Wales and Murray Bridge.

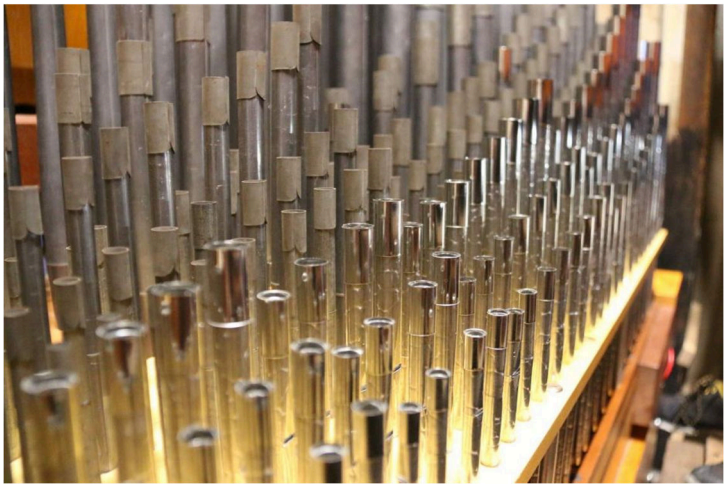
The cathedral has significant fine-quality stained glass windows. James Powell and Sons made three that were unveiled in the Lady chapel in November 1900. The southern transept window is the largest stained glass window in the cathedral and was dedicated in August 1926. A window representing Saint Cecilia, patron saint of church music, was unveiled in 1876 in the pulpit side of the chancel, though by 1969 it was ironically concealed by the organ.

In the western tower is the cathedral's ring of eight bells, hung for change ringing. Their purchase was funded by a bequest from cathedral warden Frederick Allen Wakeman. They were cast by John Taylor & Co of Loughborough England in 1946 and were dedicated by Bishop Robin on 29 June 1947. With the tenor (largest) bell weighing just over 41 long hundredweight (2.1 t) they are the heaviest ring of eight bells in the Southern Hemisphere, and the second heaviest ring of eight in the world after Sherborne Abbey in England. The bells are rung by members of The Australian and New Zealand Association of Bellringers who also operate the Adelaide Ringing Centre of 8 dumb-bells for training which opened in 2012.

St Peter's Cathedral has a long and distinguished musical reputation in Adelaide. St Peter's Cathedral Choir has been singing services in the cathedral for over 130 years. It is the only choir of children and adults of its type in Adelaide. Currently, the choir sings three choral services per week (Solemn Eucharist and Evensong every Sunday, plus Evensong on Wednesdays during school terms) in addition to regular concert performances and other special services. In 2006/7 and 2010/11, the choir toured internationally to the UK and Italy. In 2014/15, the choir undertook its third international tour to the UK and France.

The Cathedral's original organ was built by the London firm of Bishop & Son. It was built in 1876 at a cost of £1,200, installed in 1877 and dedicated on 1 January 1878. The organ contained 29 stops distributed over 3 manuals and pedals, being installed on the floor of the right choir transept with a reversed console standing behind the choir in what is now the sacristy. With the addition of the present nave and Lady Chapel, despite its substantial size it was considered inadequate for the enlarged building. It was used for over fifty years before relocation in 1930 to St Augustine's Church in Unley, South Australia.

The current organ was built by William Hill & Son and Norman & Beard of Melbourne and London and was dedicated on 29 July 1929. The 1928 contract price was stated to be £7,197 and the English job number was 27274, Australian job number 21. It has an electro-pneumatic action, four manuals and fifty speaking stops, featuring 26 couplers. Initial plans were for the organ to be divided on either side of the choir, but in the end the more economical solution of a single location in the left-hand choir transept, was adopted. The detached console was placed in a newly-built loft adjacent to the pipework; constructed in oak, the stop jambs are attractively panelled and resemble those in the former organ at Melbourne Town Hall and at Peterborough Cathedral, in Britain. Walter Bagot, the Cathedral's architect at the time, prepared plans for a splendid carved case, but this could not proceed owing to cost; in 1963, the base of this was completed. It is of interest that the central pipes of the two towers have double mouths facing at right angles to one another.



The organ is significant in the history of Australian organ-building, since its commission coincided with several other major contracts won by Hill Norman & Beard (notably the replacement of the organ - destroyed by fire on February 1st, 1925 - in the Melbourne Town Hall,

followed between 1925 and 1930 by contracts for new organs in Christchurch Cathedral, Christchurch City Hall, Dunedin Town Hall and the Presbyterian Assembly Hall in Sydney - now in Scotch College, Melbourne), and which justified the British parent company's establishment - in August 1926 - of an outpost factory in Clifton Hill (Melbourne) which survived until 1974. While its metal pipes were imported from England, as much as possible of the balance of the instrument was constructed locally.

Its specification, incorporating all the stop names in the original Bishop organ, was drawn up in consultation with A E H Nickson, an outstanding Melbourne-based organist and teacher, whose engagement included superintending its construction at Clifton Hill, and testing the finished work, when he is quoted by a cathedral publication (c. 1930) as saying that "...he believed the Cathedral had now one of the finest organs in Australia".

The organ remains largely unaltered from the original, testimony to the excellence of its original construction. Major work has been limited to lifting the pitch to orchestral requirements and conversion of the bottom octave pipes to electro-pneumatic action (1971), installation of solid state switching for key and stop action (1983) and replacement of the blowing system (1986). Only two minor tonal additions have been made by Adelaide organ builder George Stephens, the addition of a Mixture V stop on the Great (1986) and the 32' Contra Trombone to the pedal division (1989), but all the original pipework survives in its original location. The lowest 12 pipes of the Contra Trombone rank are located on a wall above the sacristy, opposite the main organ case. These pipes are not the largest pipes in the instrument, that title goes to the 32ft Double Open Diapason,

happen. "Once we've got it going again we're hoping people will really enjoy it, not just those who are churchgoers," he said. "In the cathedral ministry, music is such an important part of what we do here at St Peter's Cathedral, but equally it's a very important significant part of the music life of Adelaide. It's like having a whole symphony orchestra controlled by one person."

whose pipes stand at the back of the main organ chamber and are big enough to climb inside. The instrument sounds particularly well in the building because of the resonant acoustic, highly favourable to organ music. The first stage of the casework, to the original design of architect Walter Bagot and installed in his memory, was fitted in 1963 but not completed.

Together, the 3,209 pipes of St Peter's Cathedral's organ make a mighty instrument, but nearly a century after their installation, they had started to leak and groan. That is why last year, the pipe organ in St Peter's was pulled completely apart, in a major restoration that ended up taking almost 18 months. "She's a grand old lady who got a bit tired, put it that way," The Very Reverend Frank Nelson, Dean of St Peter's Cathedral, said. "This is her 90-year service — it should've been done 30 years ago but it wasn't."

The Dean has been planning the restoration for almost a decade, and raised almost $1.7 million to make it

In July 2017 the organ was dismantled and shipped back to England to the workshop of Harrison & Harrison Ltd of Durham, where it was comprehensively overhauled. Four new stops were provided and the 32ft Contra Trombone was revoiced; these tonal revisions being based on the original pipework scaling. While the romantic style and character of the 1929 instrument has been preciously safeguarded it has been equipped with modern playing aids to allow the cathedral musicians to have an instrument fit for today's liturgical requirements. The instrument remains as one of the grandest and substantially musically unaltered organs in Australia,

Refurbishment of the pedal board in Harrison's workshop

making it one of significant historic importance.

"All the leather components were re-leathered, all the pipes were washed, and then they went on the voicing machine," Andrew Scott from the company said. "This kind of work only happens once in a generation — this is the biggest piece of work this organ has seen in its whole lifetime.

"Organs are a very expensive luxury — after the building itself, the organ is usually the next most expensive item of furniture." Mr Scott's job title is head voicer, and it reflects the way he tunes the instrument. "Every pipe in this organ is a musical instrument in its own right, and it's our job as voicers to make all of those pipes play harmoniously," he said. Each pipe is tuned individually by ear, but these days it is aided by technology: an electronic keyboard connected to the pipes over Wi-Fi. "The cathedral has had to be closed because we need it quiet in here, because my job is all done by ear," Mr Scott said. The restoration also included the installation of an intricate facade for the organ that was based on the design for the original 1929 construction but never finished.

The current cathedral organist is David Heah, who started learning piano at age five, and was a member of the church choir. "I started learning the organ when I was 18, and I was an organ scholar here for three years," Mr Heah said. "It's certainly a privilege and I do have to pinch myself occasionally when I walk up here and see this instrument sitting here and get the opportunity to play it." While it is largely used in the church's regular services, the organ is also played for concerts, celebrations, weddings, funerals and state occasions. And while the major piece of maintenance is over, the pipes do still need regular care.

"As the temperature changes we have to keep the organ in tune so it's speaking as one instrument, so we typically have a local organ builder come in and tune the pipes once every six to eight weeks," Mr Heah said.

The organ was rededicated on Sunday 2nd December 2018.

Bruce Duncan

Information compiled from many sources including Harrison and Harrison, St Peter's Cathedral and ABC News. Special thanks to Chris Oaten, Insight Visuals (www.insightvisuals.com.au), for the use of his photographs. Other photos from the internet.

Stoplist of St. Peter's Cathedral Organ, Adelaide

Great Organ

Double Open Diapason	16	61
Open Diapason I	8	61
Open Diapason II	8	61
Claribel Flute	8	61
Corno Dolce	8	61
Principal	4	61
Harmonic Flute	4	61
Quint Flute	2 2/3	61
Fifteenth	2	61
Sesquialtera 17.19.22	III	183
Mixture 19.22.26	III	183
Trumpet	8	61
Clarion	4	61

Choir Octave to Great
Choir to Great
Choir Sub Octave to Great
Swell Octave to Great
Swell to Great
Swell Sub Octave to Great
Solo Octave to Great
Solo to Great
Solo Sub Octave to Great

Swell Organ

Lieblich Bourdon	16	73
Open Diapason (heavy pressure)	8	73
Rohr Flöte	8	73
Viol d'Orchestre	8	73
Voix Céleste (TC, tuned sharp)	8	61
Principal (heavy pressure)	4	73
Flute	4	73
Fifteenth	2	73
Sesquialtera 12.17.19	III	219
Mixture 15.19.22	III	219
Contra Fagotto	16	73
Cornopean	8	73
Oboe	4	73
Clarion	4	73

Tremulant

Octave
Unison Off
Sub Octave
Solo to Swell

Choir Organ

Gedeckt	8	61
Gamba	8	61
Unda Maris (TC, tuned flat)	8	49
Suabe Flute	4	61
Salicet	4	61
Harmonic Piccolo	2	61
Clarinet	8	61
Orchestral Oboe	8	61

Tremulant

Octave
Unison Off
Sub Octave
Swell Octave to Choir
Swell to Choir

Solo Organ

Harmonic Flute	8	61
Violoncello	8	61
Salicional	8	61
Harmonic Flute	4	61
Vox Humana	8	61

Tremulant

Unenclosed Tuba	8	61
Clarion (from Tuba)	4	24

Octave
Unison Off
Sub Octave

Clarion has two ranks of flue pipes in top octave

Pedal Organ

Double Open Diapason	32	12
Open Diapason (wood)	16	32
Contra Bass (from Great)	16	-
Bourdon	16	32
Principal	8	32
Violoncello	8	32
Bass Flute (from Bourdon)	8	12
Fifteenth (from Principal)	4	12
Contra Trombone (from Trombone)	32	12
Trombone	16	32
Trumpet (from Trombone)	8	12

Choir to Pedal
Great to Pedal
Swell to Pedal
Solo to Pedal

Accessories

Six foot pistons to the Pedal Organ
Six pistons to the Choir Organ
Six pistons to the Great Organ
Six pistons to the Swell Organ (duplicated by foot pistons)
Six pistons to the Solo Organ
Reversible pistons to the unison couplers
Eight general pistons and general cancel
Stepper operating general pistons in sequence
128 general levels, 8 divisional levels
Combination couplers:
Great & Pedal Pistons, Generals on Swell foot pistons
Reversible foot pistons for:
Pedal 32s; Swell to Great and Great to Pedal

Wind Supply

Discus 10 h.p. multistage blower
Discus 0.33 h.p. blower

General

Pitch c = 517.3 @ 19°c
Pitch a = 435 @ 19°c

Manual compass 61 notes
Pedal compass 32 notes
The organ comprises 53 speaking stops and 3,425 pipes.