



The ORGANS *and the* **CARILLON**
OF THE CRYSTAL CATHEDRAL





The South Balcony Organ

The Crystal Cathedral, dedicated September 1980, was designed by the renowned architect Philip Johnson. A magnificent structure, the Cathedral provides an ideal acoustical environment for the great organ which is housed in the four points of the vast interior space. The building stands 128 feet high, 207 feet deep, and 415 feet wide. It is shaped like a star and contains 91,000 square feet of floor space. There are nearly 2,900 permanent seats, and 2,000 more can be accommodated in the choir and chancel areas and in the large East, West and South Narthex areas.

There are many unusual features in the all glass and steel building, including fountains and two 90-foot doors that can be opened and closed by remote control to reveal a spectacular view of the sky.

To fill this enormous air space, and to provide an instrument to adequately meet the varied musical requirements of the Music Ministry, a pipe organ of unusual design and scope has been built.

This organ is a result of the vision and commitment to great music by the founding pastor and his wife, Dr. and Mrs. Robert H. Schuller.

The HAZEL WRIGHT ORGAN

built by FRATELLI RUFFATTI

The Cathedral organ is a gift of the late Mrs. Hazel Wright of Chicago. Mrs. Wright also provided an endowment for the maintenance of the instrument.

This monumental organ is the largest European-built instrument in America, and is very near the top of the list of large organs in the world. The original design was by legendary organist Virgil Fox, who died in 1980. Organ Arts of San Francisco, U.S. representatives for Fratelli Ruffatti of Padua, Italy, handled negotiations with the builders and acted as consultants during installation.

The organ was inaugurated in May 1982. It combines the 1962 AEolian-Skinner instrument from Lincoln Center for the Performing Arts in New York City with the 1977 Ruffatti which was installed in the former Sanctuary of the congregation. A new String Organ and East and West Chamade organs were added by Ruffatti, along with the world's largest drawknob console.

The Henderson and Wilson Organ Company of Long Beach installed the organ and continues to maintain it. Design changes and completion plans in the years following the installation have been supervised by Frederick Swann, who was appointed Director of Music and Organist in 1982.

Funds for additions and replacements over the years have been provided by major gifts from Mr. F. Malone Hocker, Mr. and Mrs. Donald Schnake, Mr. and Mrs. John Veneri, Dr. Christian Herrmann, Jr., and Mr. J. T. Warring. A substantial number of additional gifts have been received from members and friends of the congregation, many in memory of Bryan K. Beavers, a former member of the music staff.

The completed organ consists of 230 voices, 302 stops, 293 ranks, and 17,106 pipes. In addition to these impressive resources, 31 Walker Digital ranks of 2,025 notes were added in 1996 to provide added color and to support congregational singing in areas of the vast

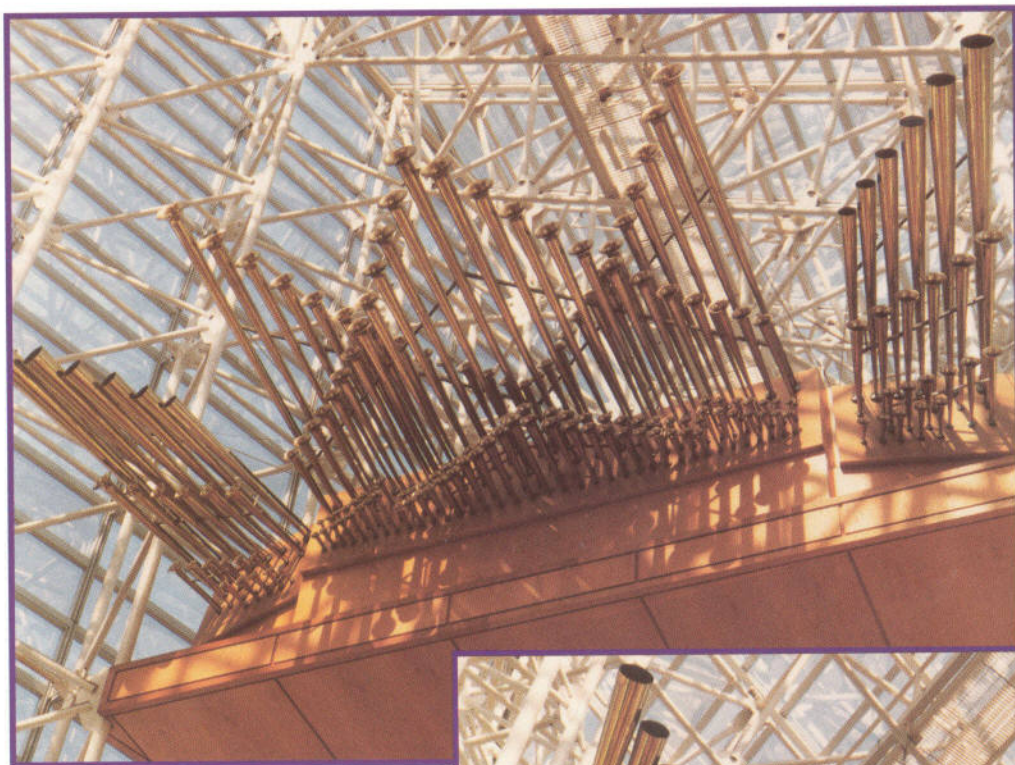
building unsupported by sound from the main organs. These stops were digitally sampled from major organs of the same period, and in the excellent acoustical environment of the Cathedral, are practically indistinguishable from the pipe sounds.

In the stoplist (beginning on page 6) the left column has letter symbols indicating the origin of the pipework: "R" = Ruffatti, "S" = AEolian-Skinner, "A" = additions or replacements, and "D" = Walker Digital additions.

Builders of the added pipe ranks were specially chosen for their craftsmanship and are: Thomas Anderson, Klaus Cannell, Eastern Organ Pipes, Tim Koelewijn, M.P. Moller, Inc., Brian Sawyers, A. R. Schopp and Sons, Organ Supply Industries, Trivo Reeds, plus several stops from old Ernest M. Skinner organs. Three of the large Pedal stops — 32'/16' Double Diapason in the main Pedal and the Gallery Pedal 16' Open Wood were built by Robert Morton and originally installed in the organ of Bovard Auditorium, University of Southern California (USC).

In most cases, installation, voicing and finishing have been accomplished by the curators of the organ: Guy Henderson, John Wilson, and Brian Sawyers.

Since the opening of the organ in 1982, several changes have been made to the solid-state operating systems. In 1985, a balanced line data transmission system was installed. This system was specifically designed and built for the Cathedral by the Trousdale Organ Company. In 1990, when the present 5-manual Gallery console was installed, electronics expert Roger Brown designed and built the interface that allows both the Chancel and Gallery computers to operate the organ. In 1993, the Chancel console was extensively rebuilt incorporating new Harris drawknobs, tilt tablets and a new Solid State Logic combination action. Installation of a new master computer control system is anticipated in 1998.

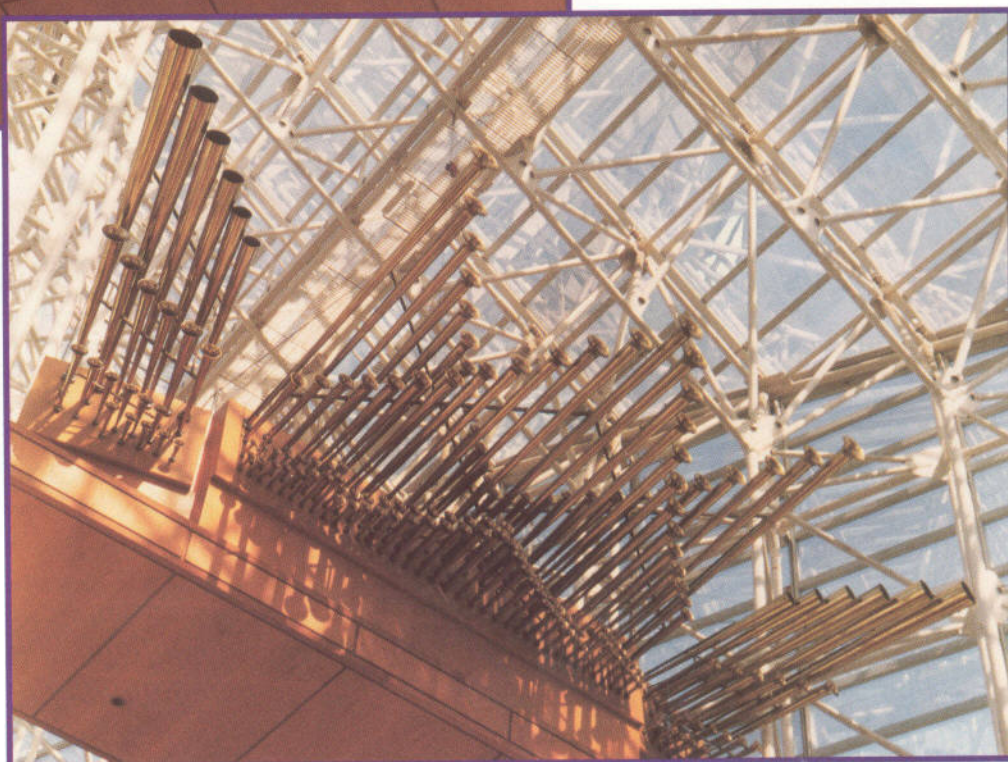


◀ **East Balcony
(Gospel Organ)**

The East balcony consists of 3 en-chamade (horizontal) trumpets, speaking at 16', 8', and 4' pitches. These magnificent bell trumpets made of solid brass are similar to the royal trumpets seen and heard at coronations. 3 ranks—183 pipes. The Echo Organ also sounds from this location.

**West Balcony
(Epistle Organ)** ▶

These fanfare trumpets have a different timbre than those in the East balcony, and speak at 16', 8', 4', and 2' pitches. 4 ranks—244 pipes.



The Fourteen Organs

The organ is comprised of fourteen organs or divisions which can be played individually or in any combination.

The Chancel (North) organ contains the Great, Swell, Choir, Positiv, Solo and Pedal organs.

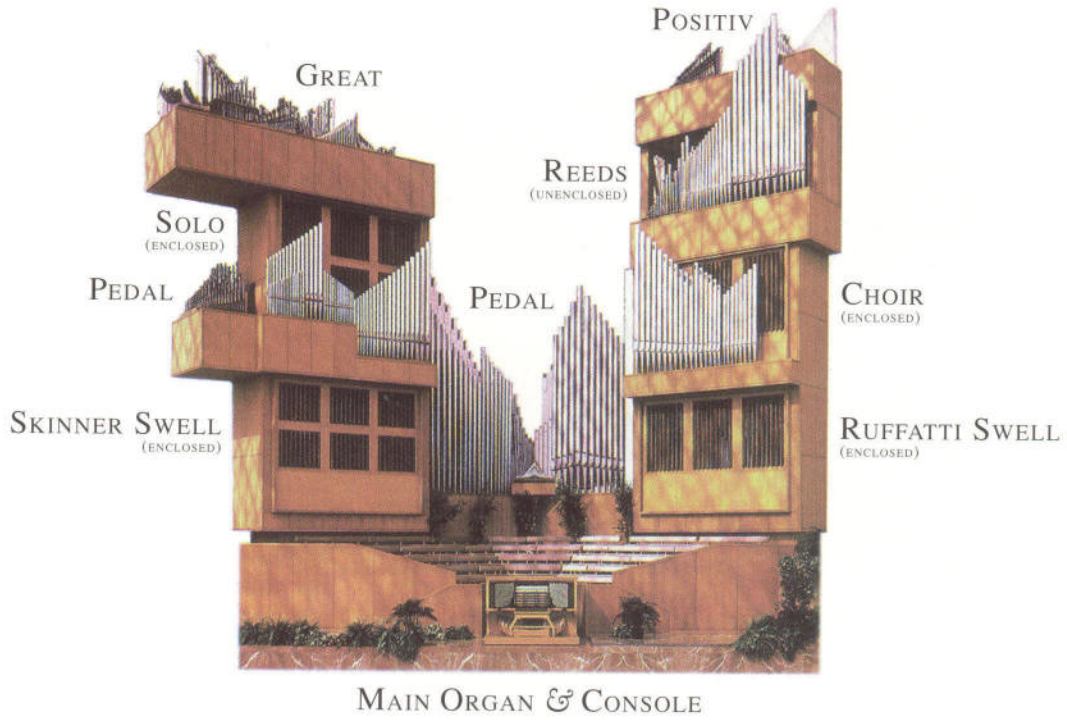
The South Balcony organ consists of the Gallery Great, Celestial, String, Gallery Solo and Gallery Pedal divisions.

The Trompeteria divisions, Gospel and Epistle, are in the East and West pinnacles of the building, separated by over 400 feet.

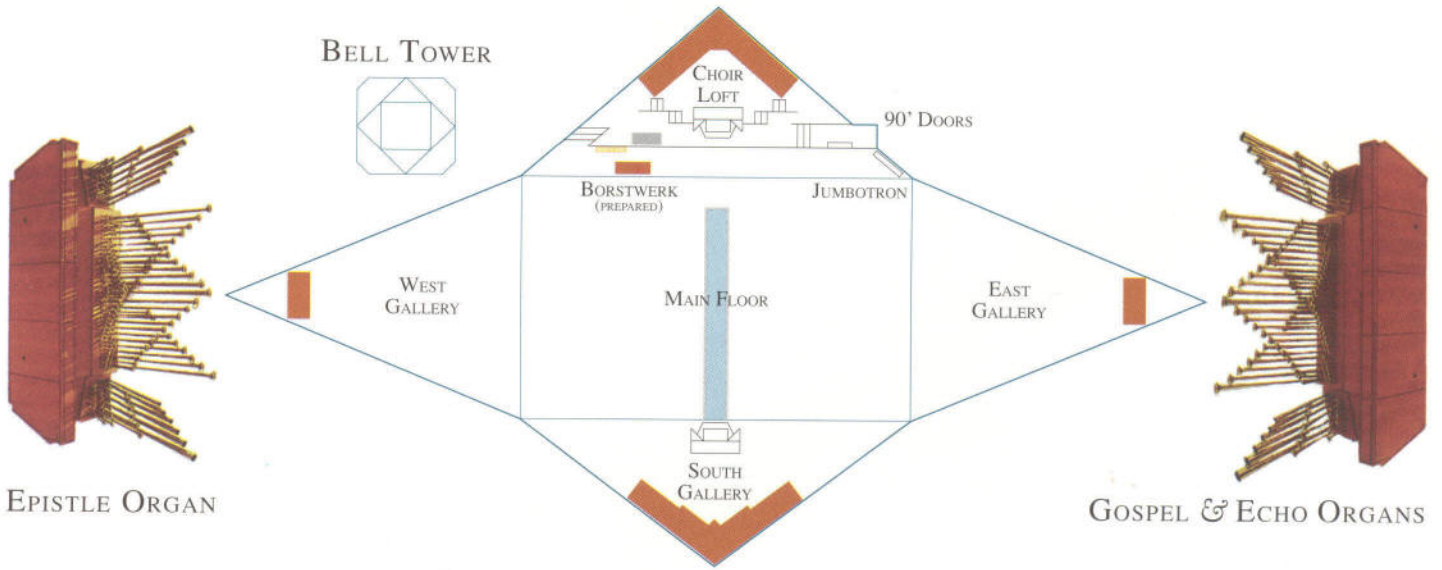
The diagram on the opposite page shows the location of each division.

The full tonal resources and wind pressures of each division are listed starting on page 6.

The Dispersed Locations of the Organ's 14 Divisions



MAIN ORGAN & CONSOLE



SOUTH GALLERY ORGAN & CONSOLE



Toplist of the Chancel (Main) Organ

GREAT ORGAN

Manual II
Unenclosed-3rd level West tower
32 stops 54 ranks 3096 pipes 31 voices
Wind Pressures: 3", 3-3/8", 5", 7"

SOURCE	PITCH	NAME	PIPES
R	16'	Montre	61
S	16'	Kontra Geigen	61
S	16'	Bourdon	61
S	8'	Diapason	61
R	8'	Principal Major	61
R	8'	Principal	61
S	8'	Holz Bourdon	61
R	8'	Flute Harmonique	61
S	8'	Spitzflöte	61
R	8'	Spitz Celeste	61
A	5-1/3'	Gross Quinte	61
R	4'	Octave	61
S	4'	Oktav	61
R	4'	Flute a Cheminee	61
S	4'	Flute Ouverte	61
S	3-1/5'	Gross Tierce	61
S	2-2/3'	Quinte	61
R	2-2/3'	Sesquialtera II	122
S	2-2/3'	Jeu de Tierce II	122
R	2'	Fifteenth	61
S	2'	Super Octave	61
S	2'	Blockflöte	61
A	2-2/3'	Grand Fourniture II-VII	338
R	1-1/3'	Ripieno IV	244
A	1-1/3'	Mixture IV-VI	305
R	2/3'	Cimbalo IV	244
A	2/3'	Zimbel III-V	257
R	16'	Contre Trompette	61
A	16'	Posaune (tc)	-
R	8'	Trompette	61
A	8'	Trompette	61
R	4'	Clairon	61
		Tremulant	
		Sub	
		Unison Off	
		Super	

SOLO ORGAN

Manual IV
2nd level West tower
26 stops 28 ranks 1712 pipes 18 voices
Wind Pressures: 6", 7-1/2", 10"

SOURCE	PITCH	ENCLOSED NAME	PIPES
A	8'	Gambe	61
A	8'	Gambe Celeste	61
A	8'	Major Flute (Gal. Solo)	-
A	8'	Doppelflöte	61
R	4'	Major Octave	61
R	4'	Orchestral Flute	61
A	2-2/3'	Quinte Flute (13-53)	41
A	2'	Fife	61
R	2'	Harmonics VI	366
S	1-1/3'	Gross Fourniture III	183
S	1/2'	Cymbel IV	244
S	16'	English Post Horn	12
S	8'	Trompette Harmonique	61
S	8'	English Post Horn	61
A	8'	English Horn	61
A	8'	French Horn	61
A	8'	Corno di Bassetto	61
S	8'	Cor de Basset (Gal. Solo)	-
S	4'	Clairon Harmonique	61
		UNENCLOSED	
S	8'	Flute d'Arveilla (Pedal)	-
A	8'	Herald Trumpet (16" wind)	61
A	8'	Millennial Trumpet (Gal. Gt.)	-
A	4'	Millennial Trumpet (Gal. Gt.)	-
A	16'	Tuba Profunda (tc)	-
A	8'	Tuba Mirabilis (18" wind)	61
A	4'	Tuba Clarion	12
		Tremulant	
		Sub	
		Unison Off	
		Super	

SWELL ORGAN

Manual III
Enclosed-1st level West tower (Skinner) and
1st level East tower (Ruffatti)
40 stops 44 ranks 2859 pipes 37 voices
73 Digital Notes
Wind Pressures: 3-1/2", 3-3/4, 5"

SOURCE	PITCH	NAME	PIPES
D	32'	Contre Gambe	12
D	16'	Gambe	61
S	16'	Flute Courte	68
R	16'	Quintadena	68
S	8'	Montre	68
R	8'	Principal	68
S	8'	Viole de Gamba	68
S	8'	Viole Celeste	68
R	8'	Salicional	68
R	8'	Voix Celeste	68
R	8'	Erzahler	68
R	8'	Erzahler Celeste	68
S	8'	Flute Couverte	68
R	8'	Bourdon	68
S	4'	Prestant	68
R	4'	Octave	68
S	4'	Flute a Pavillon	68
R	4'	Cor de Nuit	68
R	2-2/3'	Nazard	61
S	2'	Doublette	61
R	2'	Flute a Bec	61
R	1-3/5'	Tierce	61
A	1-1/7'	Septieme	61
S	1-1/3'	Larigot	61
A	1'	Piccolo	61
S	8/9'	None	61
S	2'	Plein Jeu III	183
R	2'	Ripieno V	305
S	2/3'	Cymbale III	183
S	16'	Bombarde	68
A	16'	Contre Trompette (tc)	-
R	16'	Basson	68
S	8'	Premiere Trompette	68
A	8'	Deuxieme Trompette	68
A	8'	Hautbois d'Orchestre	68
R	8'	Hautbois	68
A	8'	Voix Humaine	68
S	4'	Premiere Clairon	68
A	4'	Deuxieme Clairon	68
R	8'	Cornet V	(collective)
		Tremulant	
		Sub	
		Unison Off	
		Super	
		Skinner expression to Solo shoe	
		Ruffatti expression to Solo shoe	

POSITIV ORGAN

Manual V
Unenclosed-4th level East tower
14 stops 16 ranks 976 pipes 11 voices
Wind Pressure: 3"

SOURCE	PITCH	NAME	PIPES
S	16'	Bourdon (Great)	-
R	8'	Principal	61
S	8'	Rohrflöte	61
S	4'	Prinzjäl	61
A	4'	Spillflöte	61
S	2'	Oktav	61
S	1-1/3'	Larigot	61
S	1'	Siffelöte	61
A	2/3'	Scharff IV	244
A	1/4'	Terz Zimbel III	183
S	16'	Fagotto (Choir)	-
S	8'	Krummhorn	61
S	4'	Rohr Schalmei	61
A	8'	Tuba Mirabilis (Solo)	-
		Tremulant	
		Sub	
		Unison Off	
		Super	



Toplist of the Chancel (Main) Organ

CHOIR ORGAN

Manual I
Enclosed-2nd level East tower
19 stops 20 ranks 1314 pipes 17 voices
Wind Pressure: 4-3/4"

SOURCE	PITCH	NAME	PIPES
S	16'	Gemshorn	68
S	8'	Viola Pomposa	68
S	8'	Viola Celeste	68
S	8'	Cor de Nuit	68
S	8'	Flauto Dolce	68
S	8'	Flauto Celeste	68
S	4'	Prinzipal	68
S	4'	Koppelflote	61
S	2-2/3'	Rohr Nasat	61
A	2'	Prinzipal	61
S	2'	Zauberflote	61
S	1-3/5'	Tierce	61
S	1-1/3'	Larigot	61
S	2/3'	Scharff IV	244
S	16'	Fagotto	68
S	8'	Petite Trompette	68
A	8'	Clarinet	68
S	4'	Fagotto	24
R	8'	Millenial Trumpet (Gal. Gt.)	-
		Tremulant	
		Sub	
		Unison Off	
		Super	
		Great/Choir Transfer	

TROMPETERIA ORGANS

GOSPEL

Floating
Unenclosed-East Gallery
8 Stops 3 Ranks 195 Pipes 8 voices
459 Digital Notes
Wind Pressure: 16"

SOURCE	PITCH	NAME	PIPES
R	16'	Trompette en Chamade	61
R	8'	Trompette en Chamade	61
R	4'	Trompette en Chamade	73
D	16'	Pedal Principal	32
D	8'	Principal	61
D	4'	Octave	61
D	2'	Super Octave	61
D	1-1/3'	Mixture IV	244
		Sub	
		On Manual V	
		On Manual IV	
		On Manual III	
		On Manual II	
		On Manual I	

EPISTLE

Floating
Unenclosed-West Gallery
9 Stops 9 ranks 513 pipes 9 voices
447 Digital Notes
Wind Pressure: 12"

SOURCE	PITCH	NAME	PIPES
R	16'	Trompette en Chamade	61
R	8'	Trompette en Chamade	61
R	4'	Trompette en Chamade	73
R	2'	Trompette en Chamade	73
D	16'	Pedal Principal	32
D	8'	Principal	61
D	4'	Octave	61
D	2'	Mixture IV-V	293
A	8'	Mounted Cornet V (5" wind)	245
		Sub	
		On Manual V	
		On Manual II	
		On Manual IV	
		On Manual I	
		On Manual III	

PEDAL ORGAN

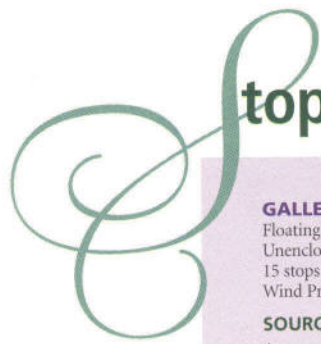
Unenclosed-2nd level West tower, 4th level East tower and Center between towers
58 stops 31 ranks 1088 pipes 24 voices
96 Digital Notes Wind Pressure: 5" 10"

SOURCE	PITCH	NAME	PIPES
A	64'	La Force (Derived)	-
A	32'	Double Diapason	12
S	32'	Kontra Geigen	12
D	32'	Contra Bourdon	32
D	32'	Contre Gambe (Swell)	-
S	21-1/3'	Diapente Grave	-
A	16'	Diapason	32
S	16'	Contre Basse	32
S	16'	Geigen (Great)	-
R	16'	Montre (Great)	-
S	16'	Principal	32
S	16'	Bourdon	32
R	16'	Subbasso	32
D	16'	Gambe (Swell)	-
S	16'	Gemshorn (Choir)	-
S	16'	Flute Courte (Swell)	-
R	16'	Quintaton (Swell)	-
R	10-2/3'	Quinte	32
S	8'	Octave	32
R	8'	Principal	32
R	8'	Violone	32
S	8'	Geigen (Great)	-
S	8'	Spitzflote	32
S	8'	Principal (Positiv)	-
S	8'	Bourdon	12
R	8'	Bordone	32
S	8'	Gemshorn (Choir)	-
S	8'	Flute Courte (Swell)	-
A	5-1/3'	Octave Quinte	12
S	4'	Choralbass	32
R	4'	Octave	32
S	4'	Principal (Positiv)	-
S	4'	Spillflote	32
R	4'	Spireflote	32
R	2'	Octave	32
S	2'	Spindleflote	12
S	5-1/3'	Fourniture IV	128
R	2-2/3'	Ripieno VI	192
S	1-1/3'	Acuta II	64
A	32'	Grand Cornet IV (Derived)	-
D	32'	Contre Bombarde	32
S	32'	Kontra Posaune	12
D	32'	Contra Fagotto	32
S	16'	Posaune	32
R	16'	Contre Trompette (Great)	-
S	16'	Bombarde (Swell)	-
R	16'	Basson (Swell)	-
S	16'	English Post Horn (Solo)	-
S	16'	Fagotto (Choir)	-
S	8'	Trompette	32
R	8'	Trompette	32
S	8'	Fagotto (Choir)	-
S	8'	Krummhorn (Positiv)	-
S	4'	Klarine	12
R	4'	Trompette	12
S	4'	Rohr Schalmei (Positiv)	-
S	2'	Rohr Schalmei (Positiv)	-

ECHO ORGAN

Manual III
East Transcept Balcony - Enclosed
8 Stops 671 Notes 8 voices
Walker Digital 1996

PITCH	NAME	NOTES
8'	Gedeckt	61
8'	Vox Amorosa II	122
8'	Voix Seraphique II	122
8'	Viols Forte II	122
4'	Divinare	61
2-2/3'	Rohr Nasat	61
8'	Hautbois	61
8'	Anthropoglossa	61
	Tremulant	
	Sub	
	Super	
	On Manual V, IV, II, I Pedal	
	Off Manual III	



Toplist of the South Balcony Organ

GALLERY GREAT ORGAN

Floating
Unenclosed-Gallery Organ West side
15 stops 18 ranks 1168 pipes 11 voices
Wind Pressure: 3-1/2"

SOURCE	PITCH	NAME	PIPES
A	8'	Grande Montre (Pedal)	17
A	8'	Holz Principal	61
R	8'	Holz Gedeckt	61
A	4'	Octave	61
R	4'	Koppelflote	61
R	2'	Fifteenth	61
R	1-1/3'	Nineteenth	61
R	1'	Twenty-second	61
A	1-1/3'	Fourniture V	305
R	1/2'	Zimbel IV	244
A	16'	Sub Trumpet	12
A	8'	Trumpet	61
A	4'	Clairon	12
A	8'	Millenial Trumpet (12" wind)	90
A	8'	Herald Trumpet (Solo)	-
		Tremulant	
		Sub	
		Unison Off	
		Super	
		On Manual V	
		On Manual IV	
		On Manual III	
		Off Manual II	
		On Manual I	

CELESTIAL ORGAN

Manual V
Enclosed-Gallery Organ East side
24 stops 31 ranks 1975 pipes 22 voices
Wind Pressures: 2-1/2", 4", 6"

SOURCE	PITCH	NAME	PIPES
R	16'	Bourdon Doux	12
A	8'	Principal	61
R	8'	Viola Pomposa	68
R	8'	Viola Celeste	68
A	8'	Flauto Dolce	68
A	8'	Flauto Celeste	68
R	8'	Flute a Cheminee	68
A	4'	Principal	61
R	4'	Italian Principal	68
R	4'	Flute Traversiere	68
A	2-2/3'	Sesquialtera II (tc)	98
A	2'	Doublette	68
R	2'	Octavin	61
A	1-1/3'	Plein Jeu V	305
A	2/3'	Cymbale IV	244
A	4/5'	Jeu de Clochette II	122
R	16'	Contre Trompette	12
A	16'	Ranquette	68
R	8'	Trompette	61
R	8'	Cor Anglais	61
A	8'	Cromorne	68
S	8'	Voix Humaine	68
R	4'	Cor de Schuller	61
A	4'	Trichter Regal	68
		Tremulant	
		Sub	
		Unison Off	
		Super	
		Positiv off Celestial	

PERCUSSION ORGAN (Chancel and Balcony)

11 STOPS

SOURCE	NAME	NOTES
	Tower Carillon (I,IV,Ped.)	52 Bells
D	Great Chimes	32 Notes
D	Choir Harp	61 Notes
D	Choir Celesta	61 Notes
	Celestial Chimes	25 Tubes
D	Celestial Harp	61 Notes
	Glockenstern	8 Bells
	Etoile du Grand Matin	13 Bells
	Rosignol	

STRING ORGAN

Floating
Enclosed-Gallery Organ West side
16 stops 16 ranks 1144 pipes 16 voices
Wind Pressure: 10"

SOURCE	PITCH	NAME	PIPES
R	16'	Viola	73
R	16'	Viola Celeste	73
R	8'	Dulciana	73
R	8'	Unda Maris	73
R	8'	Salicional	73
R	8'	Voix Celeste	73
R	8'	Dulcett	73
R	8'	Dulcett Celeste	73
R	8'	Muted Virole I	73
R	8'	Muted Virole I Celeste	73
R	8'	Muted Virole II	73
R	8'	Muted Virole II Celeste	73
R	8'	Violoncello	73
R	8'	Violoncello Celeste	73
A	8'	Rohrpfeife	61
A	4'	Nachthorn	61
		Tremulant	
		Sub	
		Unison Off	
		Super	
		On Manual V	
		On Manual IV	
		On Manual III	
		On Manual II	
		Off Manual I	
		String Tutti	

GALLERY SOLO ORGAN

Manual IV
Enclosed-Celestial and String
3 stops 2 ranks 98 pipes 2 voices

SOURCE	PITCH	NAME	PIPES
A	8'	Major Flute (12" wind)	49
S	8'	Cor de Basset (10" wind)	49
A	8'	Millenial Trumpet (Gal. GT.)	-

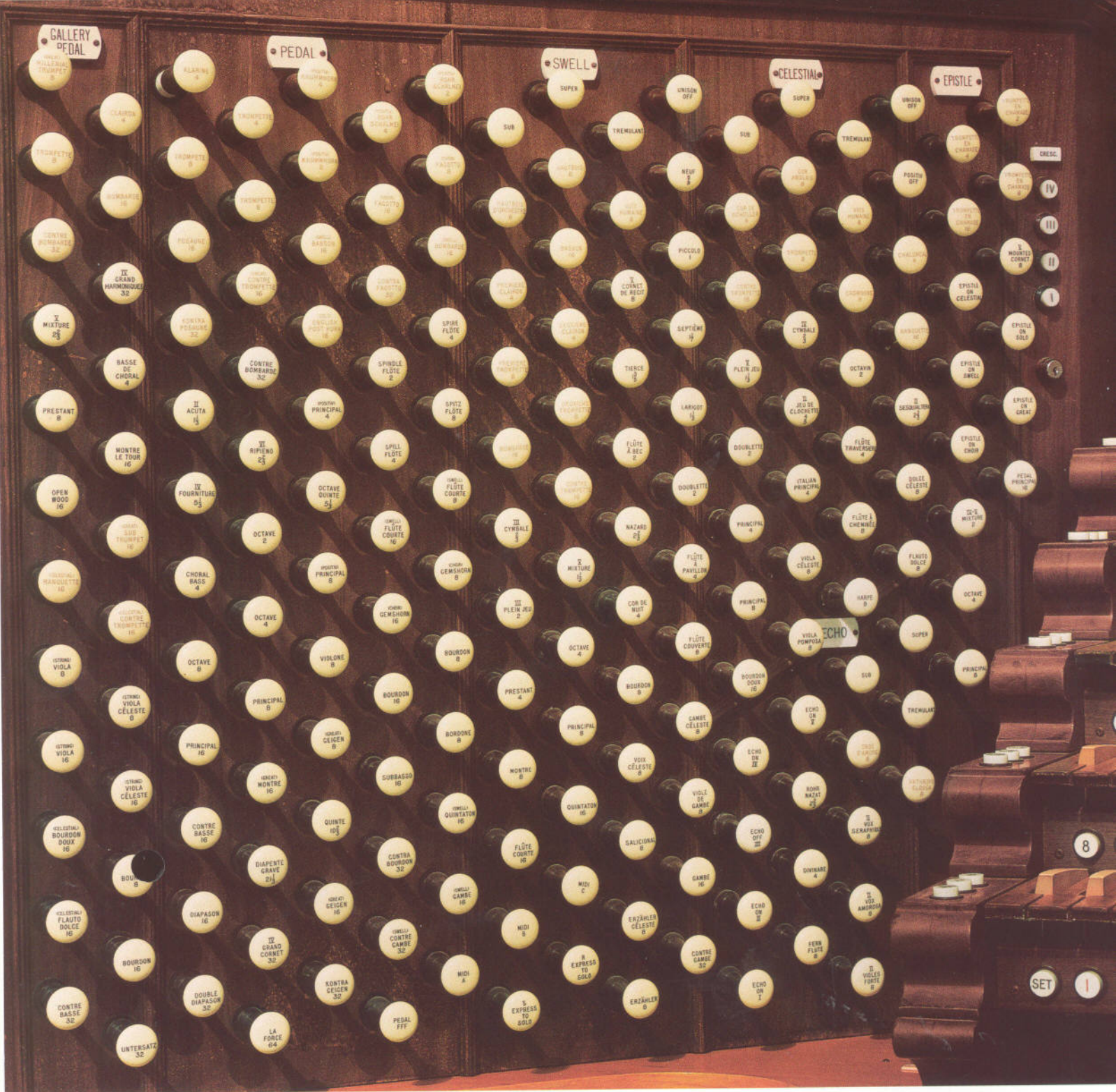
GALLERY PEDAL ORGAN

Unenclosed-Gallery Organ East side and Center
23 stops 9 ranks 260 pipes 7 voices
64 Digital Notes
Wind Pressure: 5"

SOURCE	PITCH	NAME	PIPES
D	32'	Contre Basse	32
D	32'	Untersatz	32
A	16'	Montre le Tour	32
A	16'	Open Wood	32
A	16'	Bourdon	32
R	16'	Bourdon Doux (Celestial)	-
R	16'	Viola (String)	-
R	16'	Viola Celeste (String)	-
A	8'	Prestant	12
A	8'	Bourdon	12
R	8'	Virole (String)	-
R	8'	Virole Celeste (String)	-
A	4'	Basse de Choral	12
A	2'	Mixture V (From Gal. Gt.)	60
A	32'	Grand Harmoniques IV (Derived)	-
A	32'	Contre Bombarde	12
A	16'	Bombarde	32
A	16'	Sub Trumpet (Gal. Great)	-
R	16'	Contre Trompette (Celestial)	-
A	16'	Ranquette (Celestial)	-
A	8'	Bombarde	12
A	4'	Clairon	12
R	8'	Millenial Trumpet (Gal. GT.)	-



The five rank Mounted Cornet is situated like a jewel amid 32' and 16' Pedal pipes. This French-Classic inspired compound stop is a solo voice of uncommon power and beauty, composed of flue pipes of the following pitches: 8', 4', 2-2/3', 2' and 1-3/5'.



▲ MAIN CONSOLE,

left jamb, contains stops for Chancel Pedal, Gallery Pedal, Swell, Celestial, Echo, and Epistle Organs.

A Brief History of Organs for

The first edifice on the Cathedral campus used for worship is the building now called the Cathedral of the Holy Spirit, dedicated in 1961. It originally housed a 23-rank Wicks pipe organ, a memorial to Dr. and Mrs. [Name]. This organ was replaced in 1977 by a five manual, 114-rank Ruffatti pipe organ. The mammoth Hazel Wright Organ. The small Antiphonal Organ, a memorial to Charles Bom [Name] detailed in this brochure.

In addition to these magnificent pipe organs (totaling nearly 400 ranks of pipes) there are the Richard Neutra designed Tower of Hope), a Rodgers 205 with two ranks of pipes in the off

Sain Console Controls & Accessories

INTERMANUAL COUPLERS

Great to Pedal	8'	8'	4'
Swell to Pedal	8'	8'	4'
Choir to Pedal	8'	8'	4'
Solo to Pedal	8'	8'	4'
Positiv to Pedal	8'	8'	4'
Gallery Great to Pedal	8'	8'	4'
Celestial to Pedal	8'	8'	4'
String to Pedal	8'	8'	4'
Echo to Pedal	8'		
Gospel to Pedal	8'		
Epistle to Pedal	8'		
Swell to Great	16'	8'	4'
Choir to Great	16'	8'	4'
Solo to Great	16'	8'	4'
Celestial to Great	16'	8'	4'
Positiv to Great	16'	8'	4'
Pedal to Great		8'	
Choir to Swell	16'	8'	4'
Solo to Swell	16'	8'	4'
Celestial to Swell	16'	8'	4'
Positiv to Swell		8'	
Swell to Choir	16'	8'	4'
Solo to Choir	16'	8'	4'
Celestial to Choir	16'	8'	4'
Positiv to Choir		8'	
Great to Choir		8'	
Celestial to Solo	16'	8'	4'
Positiv to Solo		8'	
Great on Solo			all stops and couplers



REVERSIBLES

To Pedal (thumb & toe)
Great, Swell, Choir, Solo, Positiv,
Gallery Great, Celestial, String,
Gospel, Epistle

Miscellaneous (thumb & toe)

Solo to Great
Glockenstern
Pedal FFF
Contre Posaune 32'
Full Organ (64 settings)
Chancel On
Gallery On
Both On
Silencer Cancel

(thumb only)

Gallery Tutti
Chancel Tutti
Grand Jeu
Plein Jeu
Swell to Great
Swell to Choir
String to Solo
Positiv to Great
Chamades 8' on V
Chamades Chorus on V
Enclosed Stops Off
Unenclosed Stops Off
Tower Carillon On/Off

(toe only)

64' La Force
32' Contra Bourdon
32' Kontra Geigen
32' Double Diapason

Ventils (silencers - thumb & toe)

Mixtures
Reeds
16' Manual/32' Pedal
Celestes

Expression Couplers

String on Celestial
String on Solo
String on Swell
String on Choir
All Swells to Swell (thumb & toe)

Pedal Movements

Celestial/Echo Expression
Choir Expression
Swell Expression
Solo Expression
Crescendo (four settings)

COMBINATIONS

SSL - Lockable - 64 memories

Generals	1-24, 0
(1-16, 0 duplicated by toe)	
Great	1-8, 0
Swell	1-8, 0
Choir	1-8, 0
Solo	1-8, 0
Celestial/Echo	1-8, 0
Pedal	1-8, 0
(1-7 duplicated by thumb)	
Gallery Pedal	1-6, 0
Gallery Great	1-6, 0
String	1-6, 0
Gospel	1-6, 0
Epistle	1-6, 0
Couplers	1-5, 0

Setter Button
Memory Lock (key switch)
Blind Check
Crescendo Set
Clear
Memory Level Up/Down

Gallery Cancel
Chancel Cancel
General Cancel (Master Cancel)

MISCELLANEOUS CONTROLS

Locking master power switch
Blower starter switches for Chancel, Gallery and Chamades.

STATISTICS

17,106	Pipes
293	Pipe Ranks
229	Voices
31	Digital Ranks
2025	Digital Notes
302	Stops
11	Percussion Stops
384	Draw knobs
66	Tablets
54	Reservoirs
110	Wind chests
10	Blowers (31 H.P. total)
2	Rectifiers

BORSTWERK ORGAN

This division, prepared for only 1997, is designed as a moveable unit to be used with either the orchestra on the main floor of the Cathedral or elsewhere on the campus.

8 stops 12 ranks 708 pipes 8 voices

PITCH	NAME	PIPES
8'	Roerfluit	61
8'	Quintadeen	61
4'	Octaaf	61
4'	Speelfluit	61
2'	Fluit	61
1-3/5'	Tertiaan II (tc)	98
1-1/3'	Mixture IV	244
16'	Baarpiip	61
	Tremulant	

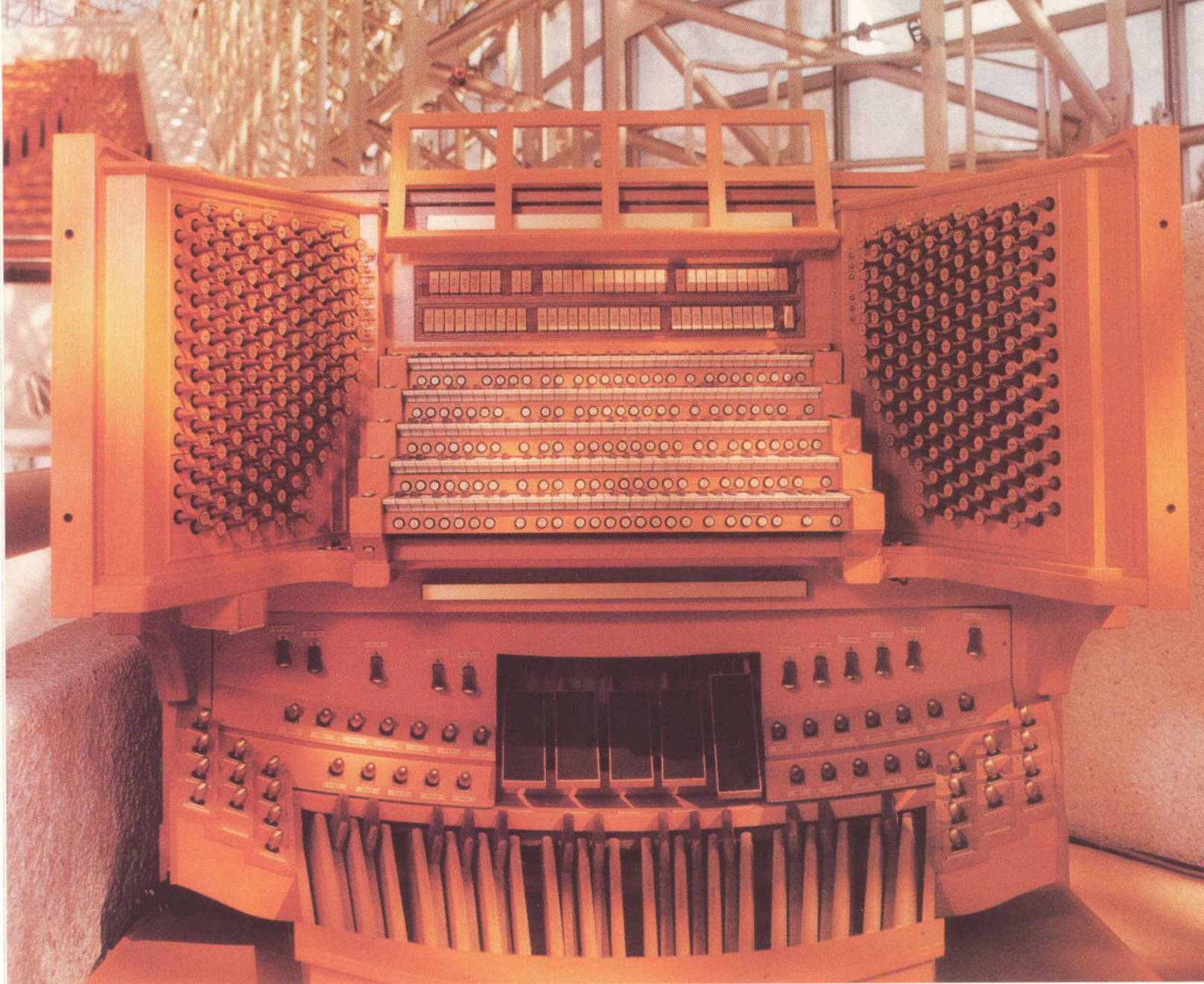


The Chancel (Main) Console

The Chancel (Main) console was built by Fratelli Ruffatti, and is the largest drawknob console ever built. There are five manuals and a pedal clavier. The resources are controlled by 384 drawknobs, 66 coupler tablets, 115 combination pistons, 55 toe studs, 64 combination memories, 62 miscellaneous controls, four expression pedals and a crescendo pedal capable of four independent settings.

The console rests on a moveable platform with parquet floor. The woods used consist of Virginia oak exterior and an interior of rosewood. The manual natural keys are rosewood; the sharps are maple with ivory caps.

Full details of Chancel console appointments may be found on the preceding page.



The South Balcony (Gallery) Console

The South Balcony (Gallery) console was built by M. P. Moller, Inc. and installed in January 1990. The complete resources of the organ can be controlled from this console, though not in a manner identical to the main console. Space limitations required certain modifications which are compensated for by the state-of-the-art Solid State Logic control system.

This console is used exclusively for several months each year when the Glory of Christmas and Glory of Easter pageants preclude the use of the main console and choir loft. The actual public-event-use of this console is almost triple that of the main console. It is on a moveable platform, and in addition to copious mechanical appointments it is prepared for MIDI.

There are 282 drawknobs, 65 coupler tablets, 126 combination pistons, 57 toe studs, 64 combination memories, 47 miscellaneous controls, four expression pedals and a crescendo pedal capable of four independent settings.

The console case is oak. The manual natural keys are bone, the sharps walnut, and the drawknobs a combination of maple and walnut.

The AEolian-Skinner Organ *in the Crystal Cathedral Arboretum*

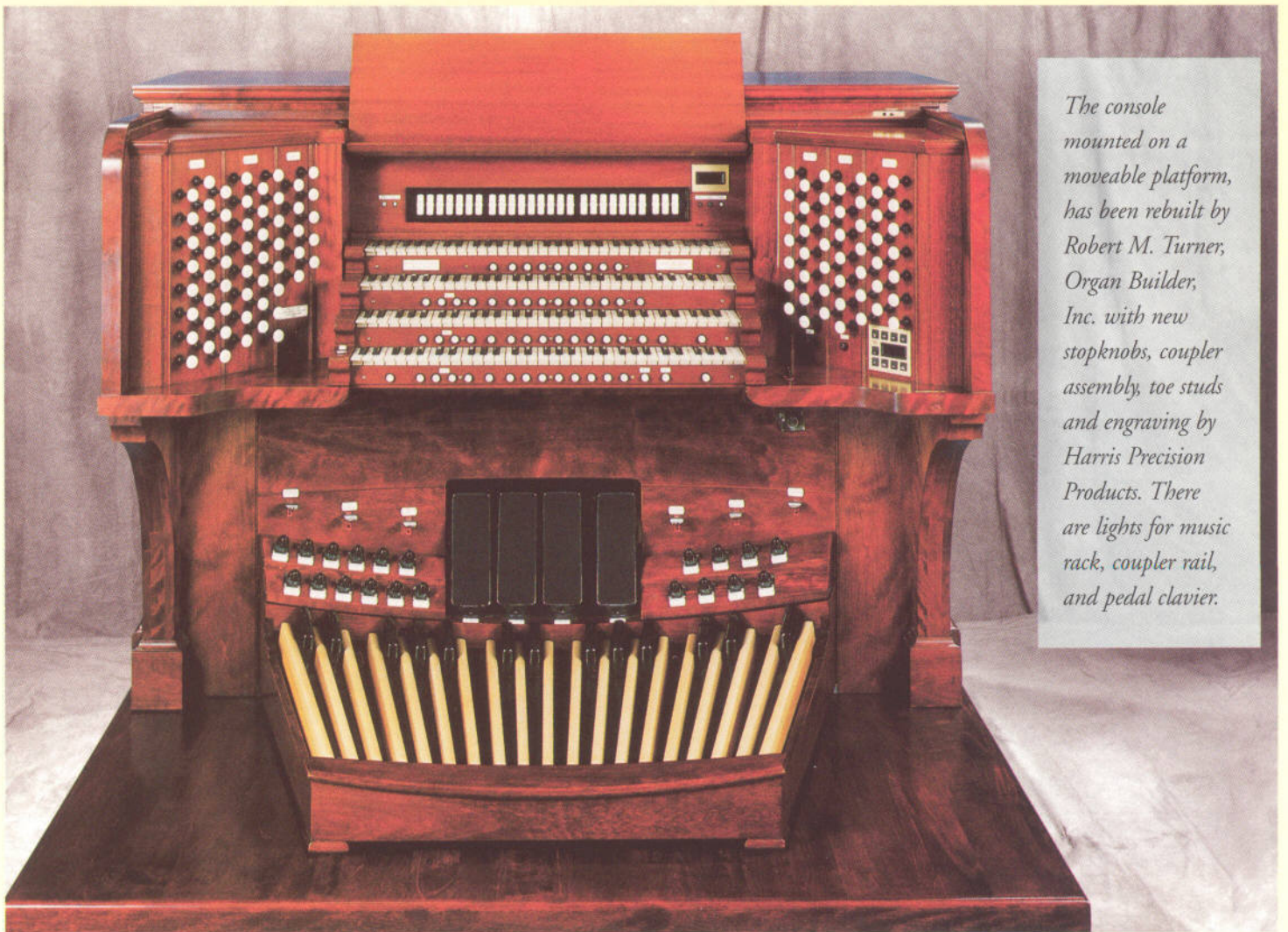
This organ, Opus 1141 of the renowned Boston firm, was originally installed in the First Church of Christ, Scientist in Beverly Hills, California in 1951. It was tonally finished under the personal supervision of the legendary G. Donald Harrison.

In January and March 1994 the Northridge earthquake and an aftershock did major damage to the church building but the organ was spared. In 1996, when the congregation decided to sell the property, a gift made it possible for the Crystal Cathedral to purchase the organ.

In June the organ was removed from the Beverly Hills church by Cathedral staff and has been lovingly restored and installed by the Cathedral Organ Curators and staff. Robert M. Turner, Organ Builder, Inc. releathered the pneumatic action and rebuilt the console. As part of the restoration process, the

console and organ actions have been improved and expanded by the addition of state-of-the-art control systems, and new leather, wiring and winding systems have been installed throughout. The result is a "like new" instrument. Tonally the organ has been preserved intact. Work was completed in December 1996.

The instrument consists of Great, Swell, Choir, Solo, Pedal and Echo divisions played from a four-manual drawknob console. There are 82 ranks and 4,949 pipes. There are also several additional stops (6 ranks plus Harp and Chimes) which are full compass digital additions by Walker Technical Company. These stops (marked * in the stoplist) have been digitally sampled from existing AEolian-Skinner organs and complete the specification in a manner typical of AEolian-Skinners of this size and period.



The console mounted on a moveable platform, has been rebuilt by Robert M. Turner, Organ Builder, Inc. with new stopknobs, coupler assembly, toe studs and engraving by Harris Precision Products. There are lights for music rack, coupler rail, and pedal clavier.

The Stoplist of the Arboretum Organ

GREAT ORGAN

(Manual II, unenclosed)
All stops 61 pipes unless noted ()

16'	Quinaton
8'	Principal
8'	Diapason
8'	Bourdon
8'	Gemshorn
4'	Principal
4'	Octave
4'	Flute Ouverte
2-2/3'	Twelfth
2'	Fifteenth
2'	Fourniture IV (244)
1'	Cymbel III (183)
	Chimes (Echo)
	Unison Off
	Swell to Great 16'
	Swell to Great 8'
	Swell to Great 4'
	Choir to Great 16'
	Choir to Great 8'
	Choir to Great 4'
	Solo to Great 16'
	Solo to Great 8'
	Solo to Great 4'

SWELL ORGAN

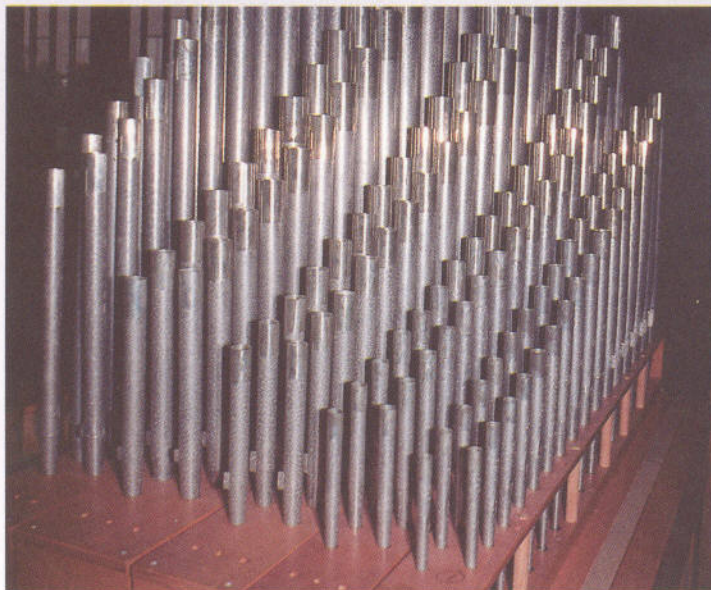
(Manual II, unenclosed)
All stops 73 pipes unless noted ()

16'	Flute Conique
8'	Geigen
8'	Geigen Celeste
8'	Salicional
8'	Voix Celeste
8'	Rohrflote
8'	Dolcan
8'	Dolcan Celeste
4'	Prestant
4'	Traverse Flute
2 2/3'	Octave Quinte (61)
2'	Fifteenth (61)
2'	Plein Jeu IV (244)
2/3'	Scharff III (183)
16'	Fagotto
8'	Trompette
8'	Hautbois
8'	Vox Humana
4'	Clairon
	Tremulant
	Sub
	Super
	Unison Off
	Choir to Swell
	Solo to Swell

CHOIR ORGAN

(Manual I, enclosed)
All stops 73 pipes unless noted ()

16'	Lieblich Gedeckt
8'	Viola
8'	Singend Gedeckt
8'	Erzahler
8'	Erzahler Celeste
4'	Koppelflote
2-2/3'	Nasat (61)
2'	Blockflote (61)
1-3/5'	Tierce (61)
1-1/3'	Larigot (61)
1'	Siffloite (61)
1/2'	Cymbel III (183)
8'	Clarinet
*8'	Trompette Heroique (61 notes)
	Tremulant
	* Harp
	* Celesta
	Sub
	Super
	Unison Off
	Swell to Choir 16'
	Swell to Choir 8'
	Swell to Choir 4'
	Solo to Choir 16'
	Solo to Choir 8'
	Solo to Choir 4'
	Great to Choir 8'



The Stoplist of the Arboretum Organ

SOLO ORGAN

(Manual IV, enclosed)

All stops 73 pipes unless noted ()

8'	Flauto Mirabilis
8'	Cello
8'	Cello Celeste
*8'	Flute Celeste II (134 notes)
4'	Flute Octaviane
8'	English Horn
8'	Bombarde
4'	Clairon
*8'	Trompette Heroique (CH)
	*Cloches (32 notes)
	Tremulant
	Zymbelstern
	Sub
	Super
	Unison Off
	Swell to Solo

ECHO ORGAN

(Manual IV enclosed; affected by Solo Couplers)

All stops 61 pipes

8'	Lieblich Flute
8'	Echo Viole
8'	Echo Celeste
4'	Flute D'amour
8'	Voix Humaine
	Chimes (25 tubes)
	Tremulant

PEDAL MOVEMENTS

Choir Expression
Swell Expression
Solo/Echo Expression
Crescendo Pedal
(With LED graph indicator)

PEDAL ORGAN

All stops 32 pipes unless noted ()

32'	Contra Bourdon (5)
*32'	Untersatz (32)notes
*32'	Contre Violone (32 notes)
16'	Contre Basse
16'	Violone
16'	Bourdon
16'	Quintaton (GT)
16'	Flute Conique (SW)
16'	Lieblich Gedeckt (CH)
10-2/3'	Quint
8'	Octave
8'	Cello
8'	Flute
8'	Flute Conique (SW)
8'	Lieblich Gedeckt (CH)
4'	Choral Bass
4'	Octave Flute
5-1/3'	Mixture IV (128)
*32'	Contre Bombarde (32 Notes)
16'	Bombarde
16'	Fagotto (SW)
8'	Trumpet (12)
4'	Clarion (12)
	Chimes (EC)
	Pedal Divide
	Great to Pedal 8'
	Swell to Pedal 8'
	Swell to Pedal 4'
	Choir to Pedal 8'
	Choir to Pedal 4'
	Solo to Pedal 8'
	Solo to Pedal 4'

COMBINATION ACTION

Solid State Logic System -

32 Memory Levels, with lock

Great, Swell, Choir, Echo/Solo,
Pedal 1,2,3,4,5,6,7,8

General 1,2,3,4,5,6,7,8,9,10,11,12,0

Adjustable Crescendos (4)

Blind Check - Clear

REVERSIBLE ACTIONS

Swell to Great (Thumb)

Solo to Great (Thumb)

Great to Pedal (Thumb & Toe)

32' Contra Bourdon (Toe)

32' Contre Violone (Toe)

32' Contre Bombarde (Toe)

Zymbelstern (Toe)

Manual 16'/Pedal 32' Stops Silent

(With indicator light)

Reeds Silent

(With indicator light)

All Swells to Swell expression (With
indicator light)

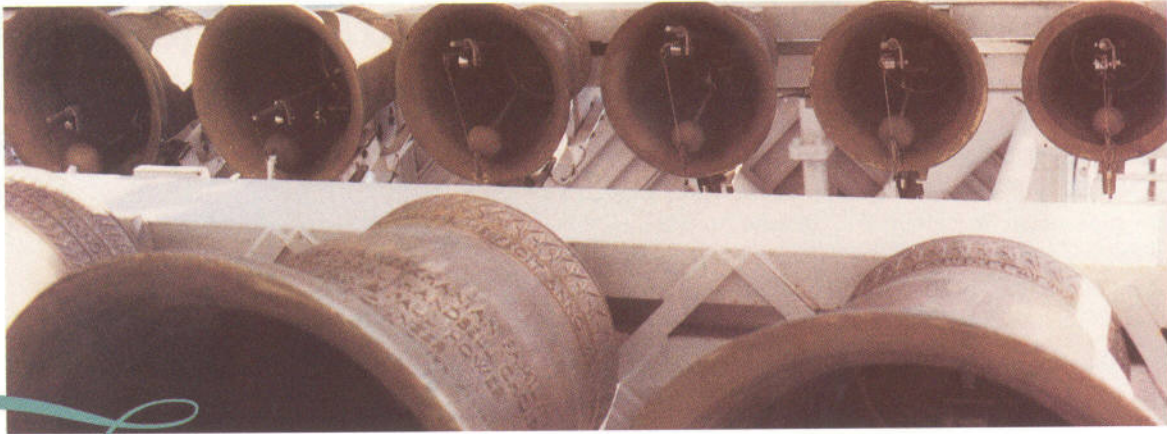
Chimes Dampers

(With indicator light)

Full Organ

(Thumb & Toe, with indicator light)





The Arvella Schuller Carillon

In September 1990 the Cathedral Spire (Crean Tower) was dedicated. It is breathtaking in its beauty, with the stainless steel prisms thrusting 236 feet into the sky, radiating colors and reflections that change with each hour of the day.

At the base of the tower is the Mary Hood Chapel. This exquisite and intimate room of variously-colored marble is available exclusively for prayer and meditation.

The tower and chapel were designed, as was the Cathedral, by Philip Johnson.

High in the tower is the Arvella Schuller Carillon. This glorious addition to the musical instruments of the Cathedral campus is named in honor of the wife of the founding Pastor, and was donated by friends and family in honor of Arvella Schuller's thirty-five years of service to the congregation, especially her work in the areas of music and worship planning, and as program director for the Hour of Power since its inception in 1970.

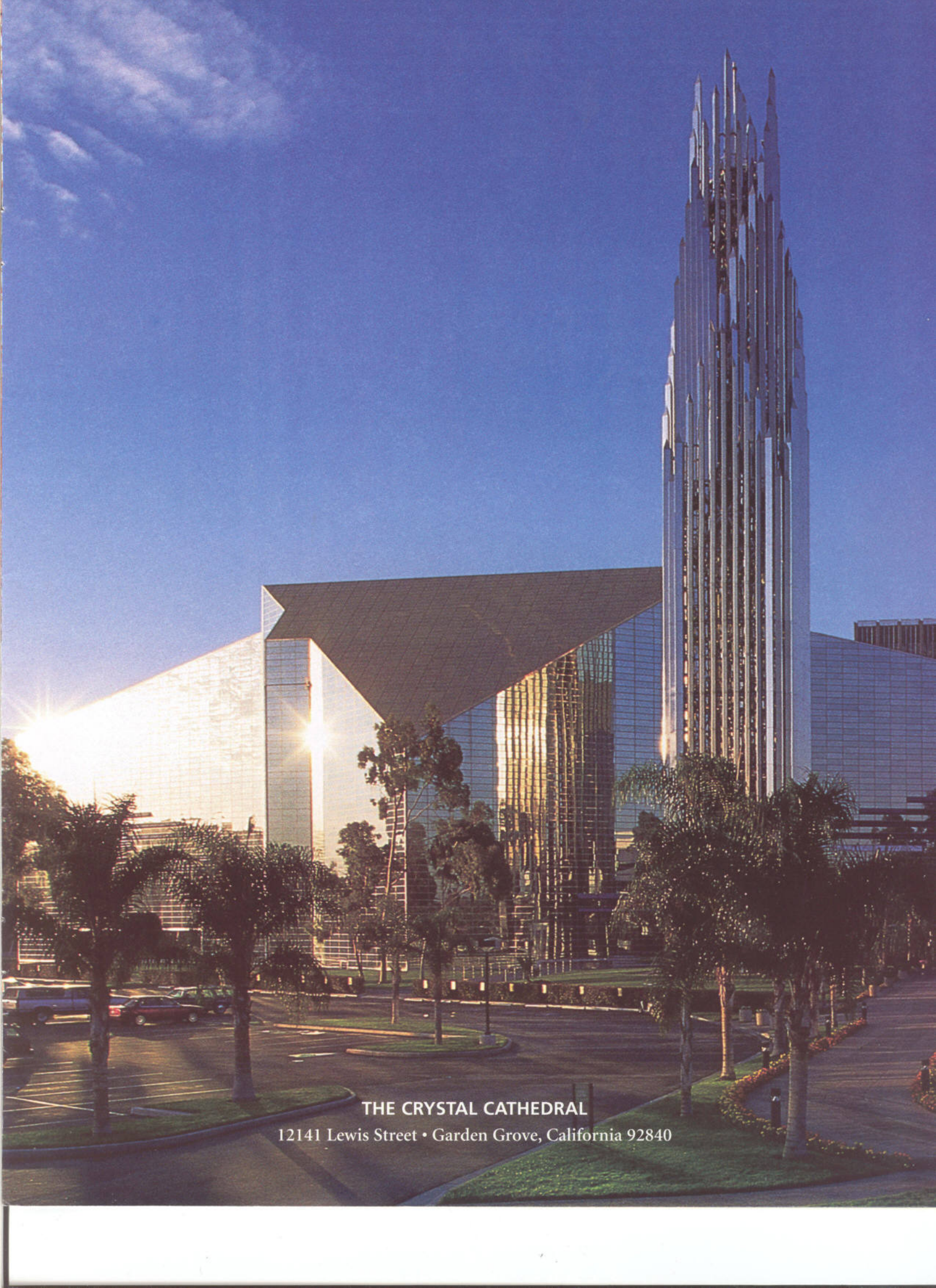
The fifty-two bells of the carillon were cast by the Royal Eijsbouts Bell Foundry in The Netherlands. It is the first carillon in America to have bells with a major third overtone instead of the usual minor third. This breakthrough in bell tuning was developed by the Eijsbouts foundry. The bells have a pure, completely in-tune sound that has won the admiration and endorsement of countless musicians throughout Europe.

The bells are of bronze. The smallest weighs thirteen pounds, the largest more than 5,000. The combined weight of the bells is 38,000 pounds.

The carillon may be played in the traditional manner from a clavier situated among the bells in the tower. It may also be played electrically from either of the organ consoles in the Cathedral, and from a portable keyboard in Mary Hood Chapel.

The Westminster Ring sounds each quarter hour from nine am to six pm, Monday through Saturday. At noon, several hymns are heard. The carillon is also played before and after services of worship and special events.





THE CRYSTAL CATHEDRAL

12141 Lewis Street • Garden Grove, California 92840



photography by Gay Heinterson

The Arboretum Organ