the GRAND OPHICLEIDE

Journal of the Atlantic City Convention Hall Organ Society, Inc.





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On the Cover

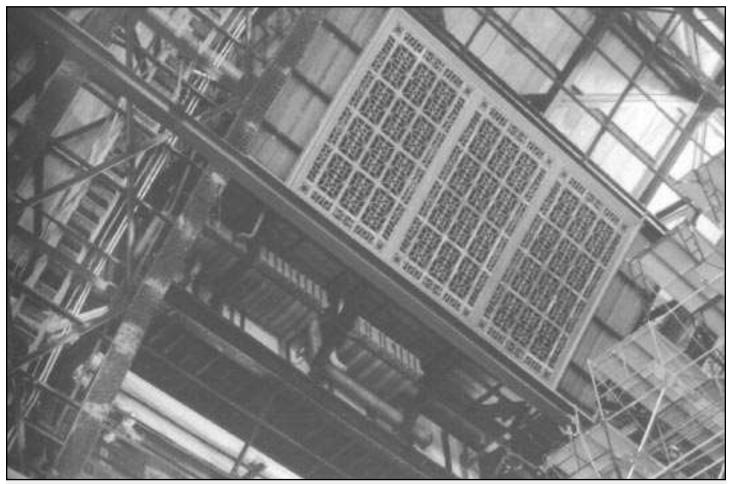
The cover picture shows Convention Hall organist Lois Miller seated at the 7-manual console in a 1940s photograph, presented as a gift to friends with a personal note dated Octoer 12, 1940. Emerson Richards hired her after hearing her play the organ on the Million Dollar Pier (now Ocean One Mall). After the 1944 hurricane that ruined the combination action, organ curator Roscoe Evans did all of her registration by hand during performances. Lois Miller was the hall organist until 1958.

The Echo Organ

By Stephen D. Smith

The ACCHOS directors have, for some time, been considering a series of articles about each of the Auditorium organ's departments (at a rate of one article per quarterly issue, a complete description of the instrument would see us through to the year 2005!). To date, there has been so much else to be included in the magazine that this project was put on the back burner. However, here is the first of the series and, space permitting, the next issue will feature an article about the Fanfare organ.

For a host of reasons, it is not possible to adhere strictly to the subject that is the title of this article, so please bear with me when, from time to time, I go off topic. Hopefully though, you'll find these asides interesting and appreciate that they are relevant in a round-about sort of way.



The Echo organ seen from the floor of the auditorium

Because the ceiling has been removed, it is possible to see the diaphragm-type reservoirs below the chamber (when the ceiling is replaced the only visible section in this picture will be the grille, which is 24 feet wide and 18 feet high). A wooden stairway — like that seen between the trusses on the picture's left — leads to the chamber but it was off limits due to the ongoing asbestos removal program. Therefore, arrangements were made for us to ascend via the scaffolding seen at bottom right.

The Echo Organ Continued

We decided to start with the Echo and Fanfare departments because they are largely unknown quantities — being hidden away high in the ceiling, half way along the hall's 488 feet length and some 90 feet above the main floor. Few people have heard them and fewer still have been inside their chambers.

The chamber is 35 feet wide and 15 feet deep. Its height varies because there are two floor levels; the upper level being at the front of the chamber and nearest the grille, while the lower level is some eight feet down at the back of the chamber. At its highest point, the height is approximately 15 feet — not quite high enough to stand an unmitered 16-foot pipe.

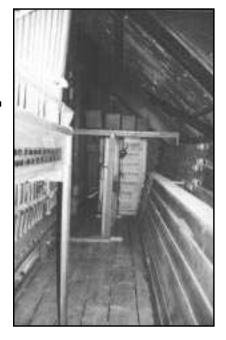
I have to say that it was with no small amount of trepidation that I stood on the threshold of the chamber

and looked into the Echo organ. I had heard so many reports — none of them good — about its condition, that I was almost expecting to see nothing more than sodden wood and bent metal. However, as my eyes became accustomed to the darkness (the chamber lights weren't working), I felt like Howard Carter peering into Tutankhamen's tomb. Jack Bethards and Douglass Hunt were behind me and I was expecting one of them to ask "What can you see?" and my reply should have been the same as Carter's, "Things, wonderful things." For although in the gloom I couldn't make out detail, I could see that there were chests with rank upon rank of pipes standing upright. This heartened me and although I felt relieved, I knew that we'd need to switch on our flashlights to see the true condition of what was within.

Upon entering the chamber, the first thing I noticed was a chest

to my left, with the distinctivelooking Vox Humana I rank nearest me. Although the stop is made of metal, my flashlight revealed it to have a light tan color — indicating that it had been coated with shellac, like many of the instrument's other ranks. Apparently, there was a time when it was believed that this practice actually affected a pipe's tone, though whether it did or not is open to debate (and perhaps experiment?). To my right was another chest and, on the lower level, I could see a dozen or so of the larger pipes belonging to the 32-foot octave of the unified Violone which are installed horizontally, with one pipe being laid upon another.

Continued on page 6





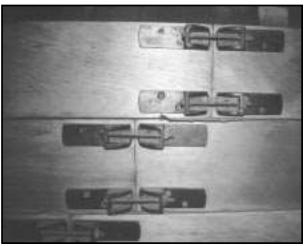
First view of the Echo organOn the left is the #1 *Vox Humana* with the unified *Spitz Flute Celeste II* on the right.

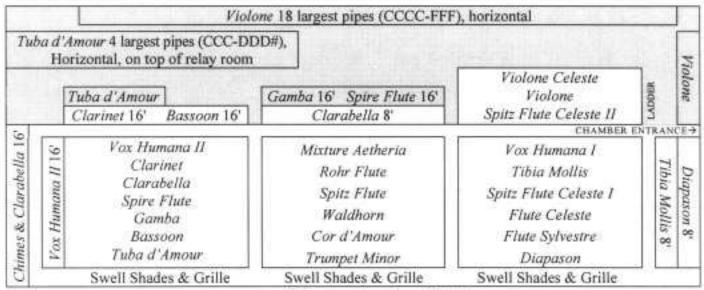
Rear/Lower Level of the Echo Organ

(Right) On the right are some of the horizontal Violone pipes and in the middle of the picture is the walk-in, air-tight relay room for the Echo organ and this side's Gallery departments. Laying on top of the relay room are the four largest pipes belonging to the Tuba d'Amour. The pipes seen top left are part of the Violone Celeste.

Although the chamber's grille was removed in order to allow the

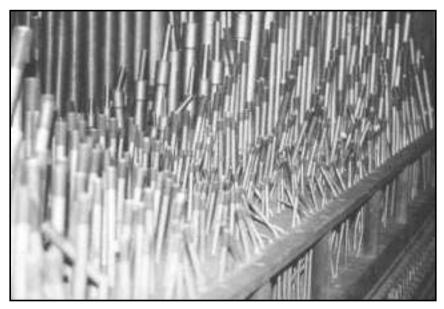
largest *Violone* pipes to be inserted, they were still too big and had to be sawn in half. Once sited, the two halves of each pipe were held together with clips (below right).



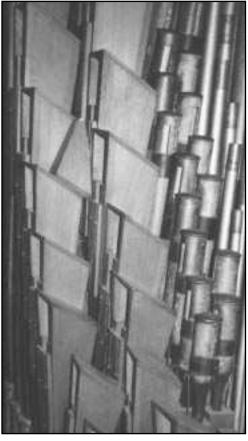


Echo chamber, simplified plan

The shaded area represents the lower level and pitches usually indicate pipes for that octave only. The Chimes (bottom left) were originally hung from the ceiling at the rear right of the chamber.



Mixture Aetheria pipes
Some Rohr Flute chimneys are also damaged.



Trebles of the wooden *Tuba d'Amour* and the papier-mâché *Bassoon*

The Echo Organ Continued

Having descended to take a closer look at the horizontal *Violone*, I noted that there were actually 18 pipes in three groups. Nearest me were the FFF-BBBB pipes (top to bottom), with AAAA#-EEEE behind them. Then, there were the DDDD#-CCCC pipes.

It was obvious that these pipes, together with much of the chamber's walls, had been thoroughly drenched at some stage(s) in their history. Nevertheless, they seemed intact.

Also in this area was a horse trough. "A horse trough?" you may ask, perhaps with the same disdain as Lady Bracknell's "A hand bag" exclamation. Yes, a horse trough. It was used for humidifying purposes,

because although Richards laid down very specific details in the contract regarding the instrument's construction, on the subject of humidification he simply said that some equipment should be installed.

In a letter to George Losh, Roscoe Evans, the instrument's first curator, says: "You would be surprised how some sections [of the organ] eat up the water. The Fanfare used the whole five gallons in about an hour and ten minutes playing during last winter."

My first personal task was to locate the *Tuba d'Amour* and *Bassoon* ranks (both 16'-8'-4'). These stops were supplied by the German firm of Welte.

I had studied carefully the Fred Hess pictures of the Echo organ under construction but had not been able to see either of these German stops. Frankly, I was beginning to wonder if they really existed when Nelson Barden assured me that he had seen them both during his visit to the instrument some years ago. I found them, side-by-side, on the front of the chest furthest from the chamber entrance (this section of the chest is vacant in the Fred Hess pictures, that's why I could not see the stops in the photographs).

The resonators of the *Bassoon* are coated with shellac which has gone off-color but, that aside, the stop appeared to be in reasonable condition. Likewise, the *Tuba* seemed in good repair but it is impossible to say anything for sure on the basis of a rather casual visual inspection.



Bassoon basses with some Tuba pipes behind



A Horse Trough!



The mitered 16-foot octaves of the Spire Flute (nearest to camera) and Gamba units

The Echo Organ Continued

The tuning collars of many pipes throughout the instrument have rusted and each department, including the Echo, has its fair share of bent pipes. While searching for the *Bassoon* and *Tuba*, I passed the six-rank *Mixture Aetheria* which is in a very sorry state. The damage looked to me like wanton vandalism. It is certainly not the result of pipes buckling under their own weight — as in the case of the Gallery II organ's *Harmonic Flute* pipes (see photographs in *the Grand Ophicleide*, Vol 1, No. 4).

Stops deleted from the Echo organ's original scheme Gedeckt 32'-8' 85 pipes
stopped metal
Gedeckt 4'-1' 85 pipes stopped metal
Dolcan
Cor d'Nuit 8' 61 pipes
stopped wood-stopped metal Cello Sordo 8' 61 pipes
Cello Sordo 8' 110 pipes
2 ranks, tapered metal
Viola Sordo 8' 61 pipes tapered metal
Dulcett 8' 122 pipes 2 ranks, tin
Zart Flute 4' 61 pipes
Zauberflöte 4' 61 pipes
stopped wood-stopped metal, harm.
Cornopean 8' 61 pipes metal
French Horn 8' 61 pipes metal
Kinura 8' 61 pipes
Oboe d'Amore 8' 61 pipes metal
Metal Aelodicon 16' 61 pipes
free reed, no resonator
<i>Physharmonica</i> 8' 61 pipes free reed, no resonator
Aeoline 8' 61 pipes
free reed, no resonator Clavaoline 8' 61 pipes
free reed, no resonator Regal 4' 61 pipes
free reed, no resonator
Harp 8' 49 notes
N.B. <i>Vox Humana I</i> 8' was also deleted but later reinstated

"The chief interest of the Echo department is the Spitz Flute family..." wrote Richards in the instrument's contract. Certainly more than one person has commented upon the exquisite tone of these stops and their ethereal quality. The *Spire Flute* unit (16'-1'), the *Flute Sylvestre* 8' and its *Flute Celeste* should also be considered part of this "chief interest."

The Auditorium organ has 17 single-rank celestes, of which five are flutes – three of them are on the Echo organ, i.e., *Spitz Flute Celeste I, Spitz Flute Celeste II,* and the *Flute Celeste* (the other two are the *Unda Maris* on the Choir and the *Harmonic Flute Celeste* on the Swell). The second *Spitz Flute Celeste* was originally to be a straight 8' stop but, in the event, it was extended to provided registers at 8' (49 notes, to Tenor C), 3'/5' and 1³/5' (both 61 notes), having 77 pipes in total. It is also worth mentioning that some of the Echo organ's original Spitz Flute pipes were later incorporated into the mutation ranks on the Great-Solo and new pipes were made-up for the Echo.

Although the Echo organ now possesses 23 stops, in the department's original scheme there were to be 41 (see chart at left).

The contents of the Echo organ were originally to be divided between the two ceiling chambers and this was to be the case even after the above 21 stops were deleted. Later on, however, it was decided to accommodate the entire department in the Right Upper chamber, so that the Left side could be given over to the Fanfare (originally to be in the Left Stage chamber) and String III organs. It was at about this time that the *Vox Humana I* was reinstated on the Echo, together with two additional voices, i.e. the *Violone* unit and a straight *Violone Celeste*. In total, 23 additional voices were appended to the instrument as it was being built. Ten of them were reinstated voices (such as the Echo organ's #1 *Vox Humana* and the *Harmonic Flute Celeste* on the Swell) but 13 others were completely new stops.

The *Violone* was the first of these additional voices and it was added to the stop list in July 1929, together with the Fanfare organ's *Trombone*. Both stops were originally of 32-foot pitch but they were extended to provide 16'-8'-4' units. The origin of these stops is unclear. Arthur Carkeek, in his 1951 thesis "The Organ in the Atlantic City Municipal Auditorium," says that they were second hand, but they do not look second hand. In fact, they look to be of typical Midmer-Losh construction.

Carkeek's assertion that they came from an organ or organs in Pittsburgh, PA, were investigated by Stanley Yoder who lives in the area. However, his laborious and thorough research turned up not one shred of evidence to substantiate this claim (in short; the dates didn't fit and none of the instrument's concerned had a full-length 32-foot). Richards claimed, after the instrument

Page 7 Continued on page 9

Echo Organ - Stop/Register List

23 stops (including one percussion), 27 ranks and 1,896 pipes.

The compass of each manual register is 61 notes unless otherwise indicated

85 pipes	Spotted metal	#52 scale	Extended/Duplexed	15" wind
	edal Right Gallery; 16. Echo;			
	FLUTE (16)	Toy of the Destruction of Court Co	got carrely (to: Eacto)	01 01 11
109 pipes	Metal	#40-44 scale	Extended/Duplexed	15" wind
and the second second second	edal Right Gallery; 16, 8. Ec	1711/2000 000 000000	Extended Duplexed	15. 9110
	edal Right Gallery; 16, 8. Ec	[P] [P] [15] [16] [16] [17] [17] [17] [17] [17] [17] [17] [17		
215 DIAPA		190, 10, 6, 4, 2-13, 2.		
61 pipes	Metal	#44 scale	Straight	15" wind
	cho; 8. 5-Manual: Echo; 8.	m44 Scare	Straight	15 WIR
216 SPITZ	The State of the S			
61 pipes	Metal	#50 scale	Straight	15" wind
	cho; 8. 5-Manual: Echo; 8.	mod searc	Strangine	12 With
	FLUTE CELESTE 18			
61 pipes	Metal	#50 scale	Straight	15° wind
	cho; 8. 5-Manual; Echo; 8.	The section	1333511	42 (11111
	FLUTE CELESTE II (8)			
77 pipes	Metal	#50 scale	Extended	15" wind
	cho; 8 (TC), 31/s, 13/s. 5-Ma	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
219 WALD	Company to the Company of the Compan			
61 pipes	Spotted metal	#48 scale	Straight	15" wine
in the second se	cho; 8. 5-Manual: Echo; 8.	17.30.0000	Stronger	- C. C.
	ACTIVATE: 100 - 10			
and the second s				_
220 CLAR	ABELLA (16)	4.75" 6" scale at CC	Extended/Dunleyed	15" wind
97 pipes	ABELLA (16) Wood, stopped bass	4.75"_6" scale at CC	Extended/Duplexed	15" wind
97 pipes 7-Manual: P	ABELLA (16) Wood, stopped bass ledal Right Gallery; 16, 10 ² / ₃	Echo; 8, 4, 2 ² /3, 2.	Extended/Duplexed	15" wind
97 pipes 7-Manual: P	ABELLA (16) Wood, stopped bass redal Right Gallery; 16, 10 ² / ₃ redal Right Gallery; 16, 10 ³ / ₃	Echo; 8, 4, 2 ² /3, 2.	Extended/Duplexed	15" wind
97 pipes 7-Manual: P5-Manual: P221 TIBIA	ABELLA (16) Wood, stopped bass redal Right Gallery; 16, 10 ² /s redal Right Gallery; 16, 10 ² /s MOLLIS 8	Echo; 8, 4, 2 ² /3, 2. Echo; 8, 4, 2 ² /3, 2.	10 23 V	1
97 pipes 7-Manual: P 5-Manual: P 221 TIBIA 61 pipes	ABELLA (16) Wood, stopped bass redal Right Gallery; 16, 10 ² /s redal Right Gallery; 16, 10 ³ /s MOLLIS 8 Capped metal	Echo; 8, 4, 2 ² /3, 2.	Extended/Duplexed Straight	1
97 pipes 7-Manual: P 5-Manual: P 221 TIBIA 61 pipes 7-Manual: E	ABELLA (16) Wood, stopped bass redal Right Gallery; 16, 10 ² /s redal Right Gallery; 16, 10 ² /s MOLLIS 8 Capped metal Echo; 8, 5-Manual: Echo; 8.	Echo; 8, 4, 2 ² /3, 2. Echo; 8, 4, 2 ² /3, 2.	10 23 V	
97 pipes 7-Manual: P 5-Manual: P 221 TIBIA 61 pipes 7-Manual: E 222 FLUTE	Wood, stopped bass redal Right Gallery; 16, 10 ² /s redal Right Gallery; 16, 10 ² /s MOLLIS 8 Capped metal scho; 8, 5-Manual: Echo; 8, E SYLVESTRE 8	Echo; 8, 4, 2 ² /3, 2. Echo; 8, 4, 2 ² /3, 2. #39 scale	Straight	15" wine
97 pipes 7-Manual: P 5-Manual: P 221 TIBIA 61 pipes 7-Manual: E 222 FLUTE 61 pipes	Wood, stopped bass redal Right Gallery; 16, 10 ² /s redal Right Gallery; 16, 10 ² /s MOLLIS 8 Capped metal scho; 8, 5-Manual: Echo; 8. ESYLVESTRE 8 Metal	Echo; 8, 4, 2 ² /3, 2. Echo; 8, 4, 2 ² /3, 2.	10 23 V	15" wind
97 pipes 7-Manual: P 5-Manual: P 221 TIBIA 61 pipes 7-Manual: E 222 FLUTE 61 pipes 7-Manual: E	ABELLA (16) Wood, stopped bass ledal Right Gallery; 16, 10 ² /s ledal Right Gallery; 16, 10 ² /s MOLLIS 8 Capped metal Echo; 8, 5-Manual: Echo; 8. ESYLVESTRE 8 Metal Echo; 8, 5-Manual: Echo; 8.	Echo; 8, 4, 2 ² /3, 2. Echo; 8, 4, 2 ² /3, 2. #39 scale	Straight	15" wind
97 pipes 7-Manual: P 5-Manual: P 221 TIBIA 61 pipes 7-Manual: E 222 FLUTE 61 pipes 7-Manual: E 223 FLUTE	Wood, stopped bass redal Right Gallery; 16, 10 ² /s redal Right Gallery; 16, 10 ² /s MOLLIS 8 Capped metal reho; 8, 5-Manual: Echo; 8, SYLVESTRE 8 Metal reho; 8, 5-Manual: Echo; 8, CELESTE 8	Echo; 8, 4, 2 ² /s, 2. Echo; 8, 4, 2 ² /s, 2. #39 scale #52 scale	Straight	15" wine
97 pipes 7-Manual: P 5-Manual: P 221 TIBIA 61 pipes 7-Manual: E 222 FLUTE 61 pipes 7-Manual: E 223 FLUTE 61 pipes	Wood, stopped bass redal Right Gallery; 16, 10 ² /s redal Right Gallery; 16, 10 ² /s MOLLIS 8 Capped metal Scho; 8, 5-Manual: Echo; 8. ESYLVESTRE 8 Metal Scho; 8, 5-Manual: Echo; 8. ECELESTE 8 Metal	Echo; 8, 4, 2 ² /3, 2. Echo; 8, 4, 2 ² /3, 2. #39 scale	Straight	15" wine
97 pipes 7-Manual: P 5-Manual: P 221 TIBIA 61 pipes 7-Manual: E 222 FLUTE 61 pipes 7-Manual: E 223 FLUTE 61 pipes 7-Manual: E	ABELLA (16) Wood, stopped bass redal Right Gallery; 16, 10 ² /s redal Right Gallery; 16, 10 ² /s MOLLIS 8 Capped metal Scho; 8, 5-Manual: Echo; 8. E SYLVESTRE 8 Metal Scho; 8, 5-Manual: Echo; 8. E CELESTE 8 Metal Scho; 8, 5-Manual: Echo; 8.	Echo; 8, 4, 2 ² /s, 2. Echo; 8, 4, 2 ² /s, 2. #39 scale #52 scale	Straight	15" wine
97 pipes 7-Manual: P 5-Manual: P 221 TIBIA 61 pipes 7-Manual: E 222 FLUTE 61 pipes 7-Manual: E 223 FLUTE 61 pipes	ABELLA (16) Wood, stopped bass redal Right Gallery; 16, 10 ² /s redal Right Gallery; 16, 10 ² /s MOLLIS 8 Capped metal Scho; 8, 5-Manual: Echo; 8. E SYLVESTRE 8 Metal Scho; 8, 5-Manual: Echo; 8. E CELESTE 8 Metal Scho; 8, 5-Manual: Echo; 8.	Echo; 8, 4, 2 ² /s, 2. Echo; 8, 4, 2 ² /s, 2. #39 scale #52 scale	Straight	15" wine
97 pipes 7-Manual: P 5-Manual: P 221 TIBIA 61 pipes 7-Manual: E 222 FLUTE 61 pipes 7-Manual: E 223 FLUTE 61 pipes 7-Manual: E	ABELLA (16) Wood, stopped bass redal Right Gallery; 16, 10 ² /s redal Right Gallery; 16, 10 ² /s MOLLIS 8 Capped metal Scho; 8, 5-Manual: Echo; 8. E SYLVESTRE 8 Metal Scho; 8, 5-Manual: Echo; 8. E CELESTE 8 Metal Scho; 8, 5-Manual: Echo; 8.	Echo; 8, 4, 2 ² /s, 2. Echo; 8, 4, 2 ² /s, 2. #39 scale #52 scale	Straight	15" wine
97 pipes 7-Manual: P 5-Manual: P 221 TIBIA 61 pipes 7-Manual: E 222 FLUTE 61 pipes 7-Manual: E 223 FLUTE 61 pipes 7-Manual: E 224 ROHR 61 pipes	Wood, stopped bass redal Right Gallery; 16, 10 ² /s redal Right Gallery; 16, 10 ³ /s MOLLIS 8 Capped metal Scho; 8, 5-Manual: Echo; 8, ESYLVESTRE 8 Metal Scho; 8, 5-Manual: Echo; 8, ECELESTE 8 Metal Scho; 8, 5-Manual: Echo; 8, ECELESTE 8 Metal Scho; 8, 5-Manual: Echo; 8, ECHO; 8, 5	Echo; 8, 4, 2 ² /s, 2. Echo; 8, 4, 2 ² /s, 2. #39 scale #52 scale	Straight Straight Straight	15" wine
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97 pipes 7-Manual: P 5-Manual: P 221 TIBIA 61 pipes 7-Manual: E 222 FLUTE 61 pipes 7-Manual: E 223 FLUTE 61 pipes 7-Manual: E 224 ROHR 61 pipes 7-Manual: E 224 ROHR 61 pipes 7-Manual: E 225 MIXTU	Wood, stopped bass redal Right Gallery; 16, 10 ² /s redal Right Gallery; 16, 10 ³ /s MOLLIS 8 Capped metal Scho; 8, 5-Manual: Echo; 8, 8 ESYLVESTRE 8 Metal Scho; 8, 5-Manual: Echo; 8, 8 ECLESTE 8 Metal Scho; 8, 5-Manual: Echo; 8, 8 FLUTE 4 Spotted metal Scho; 4, 5-Manual: Echo; 4, 9 URE AETHERIA VI Metal Scho; 15-17-19-22-26-29, 5-	#52 scale #48 scale Scale unknown	Straight Straight Straight Straight	15" wind
97 pipes 7-Manual: P 5-Manual: P 221 TIBIA 61 pipes 7-Manual: E 222 FLUTE 61 pipes 7-Manual: E 223 FLUTE 61 pipes 7-Manual: E 224 ROHR 61 pipes 7-Manual: E 225 MIXTU 366 pipes 7-Manual: E	Wood, stopped bass redal Right Gallery; 16, 10 ² /s redal Right Gallery; 16, 10 ³ /s MOLLIS 8 Capped metal Scho; 8, 5-Manual: Echo; 8, 8 ESYLVESTRE 8 Metal Scho; 8, 5-Manual: Echo; 8, 8 ECLESTE 8 Metal Scho; 8, 5-Manual: Echo; 8, 8 FLUTE 4 Spotted metal Scho; 4, 5-Manual: Echo; 4, 9 URE AETHERIA VI Metal Scho; 15-17-19-22-26-29, 5-	#52 scale #48 scale Scale unknown	Straight Straight Straight Straight	15" wind

85 pipes	Metal	2.5" 3.5" scale	Extended/Duplexed	15" wind
7-Manual:	Pedal Right Gallery; 16. Echo;	The state of the s	l Right Gallery; 16. Ech	o; 8.
City of the Control o	MPET MINOR 8			
61 pipes	Metal, Harm.	3,5" scale	Straight	15" wind
7-Manual:	Echo; 8. 5-Manual: Echo; 8.			
229 COR	D'AMOUR 8			
61 pipes	Metal	5" scale	Straight	15" wind
7-Manual:	Echo; 8. 5-Manual: Echo; 8.			
230 VOX	HUMANA II (16)			
85 pipes	Metal	3.75" scale	Extended/Duplexed	15" wind
7-Manual:	Pedal Right Gallery; 16. Echo; 1	6, 8, 4. 5-Manual: Pedal F	tight Gallery; 16. Echo;	6, 8, 4.
231 TUB	A D'AMOUR (16)			
85 pipes	Wood, Harm,	8"_8" scale	Extended/Duplexed	25" wind
m v v	D 1 1 D 1 C 1	2 0 1 5 1 1 1 D 1 1 F	V 4 11	
/-Manual:	Pedal Right Gallery; 16. Echo; 1	6, 8, 4. 5-Manual: Pedal F	(ight Gallery; 16. Echo;	6, 8, 4.
7-Manual: 232 CHIN		6, 8, 4. 5-Manual: Pedal F	Cight Gallery; 16. Echo;	6, 8, 4.
		6, 8, 4. 5-Manual: Pedal F	Straight	6, 8, 4.
232 CHIN 25 notes	MES 8	6, 8, 4. 5-Manual: Pedal F	у	6, 8, 4.
232 CHIN 25 notes 7-Manual	MES 8 Tubular Metal	6, 8, 4. 5-Manual: Pedal F	у	6, 8, 4.
232 CHIM 25 notes 7-Manual 298 VIOI	Tubular Metal Echo; 8. 5-Manual: Echo; 8.		у	
232 CHIN 25 notes 7-Manual 298 VIOI 97 pipes	Tubular Metal Echo; 8. 5-Manual: Echo; 8. LONE (32)	9.25"_9.25"scale	Straight	
232 CHIM 25 notes 7-Manual 298 VIOI 97 pipes 7-Manual	Tubular Metal Echo; 8. 5-Manual: Echo; 8. ONE (32) Wood DL-Spotted metal DL	9.25"_9.25"scale 4. Echo; 16, 8, 4.	Straight	
232 CHIM 25 notes 7-Manual 298 VIOI 97 pipes 7-Manual 5-Manual	Tubular Metal Echo; 8. 5-Manual: Echo; 8. ONE (32) Wood DL-Spotted metal DL Pedal Right Gallery; 32, 16, 8,	9.25"_9.25"scale 4. Echo; 16, 8, 4.	Straight	
232 CHIM 25 notes 7-Manual 298 VIOI 97 pipes 7-Manual 5-Manual	Tubular Metal Echo; 8. 5-Manual: Echo; 8. ONE (32) Wood DL-Spotted metal DL Pedal Right Gallery; 32, 16, 8, Pedal Right Gallery; 32, 16, 8. HUMANA I 8	9.25"_9.25"scale 4. Echo; 16, 8, 4.	Straight	
232 CHIM 25 notes 7-Manual 298 VIOI 97 pipes 7-Manual 5-Manual 303 VOX 61 pipes	Tubular Metal Echo; 8. 5-Manual: Echo; 8. ONE (32) Wood DL-Spotted metal DL Pedal Right Gallery; 32, 16, 8, Pedal Right Gallery; 32, 16, 8. HUMANA I 8	9.25"_9.25"scale 4. Echo; 16, 8, 4. Echo; 16, 8, 4.	Straight Extended/Duplexed	25" wind
232 CHIM 25 notes 7-Manual 298 VIOI 97 pipes 7-Manual 5-Manual 303 VOX 61 pipes 7-Manual	Tubular Metal Echo; 8. 5-Manual: Echo; 8. ONE (32) Wood DL-Spotted metal DL Pedal Right Gallery; 32, 16, 8, Pedal Right Gallery; 32, 16, 8. HUMANA I 8 Metal	9.25"_9.25"scale 4. Echo; 16, 8, 4. Echo; 16, 8, 4.	Straight Extended/Duplexed	25" wind
25 notes 7-Manual 298 VIOI 97 pipes 7-Manual 5-Manual 303 VOX 61 pipes 7-Manual 319 VIOI	Tubular Metal Echo; 8. 5-Manual: Echo; 8. ONE (32) Wood DL-Spotted metal DL Pedal Right Gallery; 32, 16, 8, Pedal Right Gallery; 32, 16, 8. HUMANA I 8 Metal Echo; 8. 5-Manual: Echo; 8.	9.25"_9.25"scale 4. Echo; 16, 8, 4. Echo; 16, 8, 4.	Straight Extended/Duplexed	25" wind

The entire stop/register list is presented in this format in the 60-page booklet "The Atlantic City Convention Hall Organ – Four Essays" available from ACCHOS and the Organ Historical Society. The booklet also contains complete descriptions of both consoles and a number of photographs.

Continued from page 7

was finished, that both ranks were "built for the Carnegie Hall organ, but never installed." He did not, however, say which Carnegie Hall he meant – although it certainly wasn't the Carnegie Hall in New York because the organ chambers there were too small to accommodate a full-length 32-foot stop, let alone two of them. So, the origin(s) of the Violone and Trombone ranks must, it seems, remain a mystery, perhaps forever.

My personal opinion – especially now that I've seen the stops "in the flesh" or rather "in the wood" – is that they were made by Midmer-Losh. If this is the case, one has to wonder why any deception was necessary in the first place but this question, too, will probably never be answered.

Whatever the truth of the matter, typewritten pages appended to the contract indicate that all of the additional stops had been decided upon by November, 1929, or, at the latest, March, 1930. This scheme comprised the Auditorium organ as we now know it.

As the stop list on these pages shows, the *Violone* and its celeste,

together with the Tuba d'Amour speak on 25 inches of wind and the department's other voices are on 15 inches. These pressures may seem excessive but they really are justified in this vast auditorium. In my experience, when attempting to get some impression of what the instrument's stops actually sound like it is best to mentally halve the wind pressure. The resulting volume then becomes more like what might be expected and the pressures seem somewhat less outrageous, e.g. the Great reeds become 15-inch stops, the 50-inch reeds sound like they're on 25 inches, the Swell organ's

The Echo Organ Continued

low-pressure is 7 inches, etc. — all pressures that might be found on an organ in a large cathedral. Certainly, one shouldn't form impressions of the Auditorium Organ's stops from reading the wind pressures alone and I can almost guarantee that everyone who hears the instrument will be astounded by its refinement and beauty — despite what some people regard as the horrendous wind pressures. If proof of this claim is required, listen to the Great-Solo department's Orchestral Oboe at beginning of track 11 on the ACCHOS compact disc recording The Auditorium Organ. It speaks on 15 inches of wind — that's higher pressure than many tubas — but one would never know it. And who would have guessed from their sound that the Solo strings used in Vierne's Berceuse (track 9) are voiced on 20 inches? Sure, the pipes are

uncommonly loud and even harsh when one is standing right next to them but they're just right when heard in the hall — and this is the real genius of Richards' design. By using what he termed "exaggerated voicing" he was able to ensure that carrying power was attributed to each stop's timbre as well as its volume. This means that, for example, the Solo strings sound like battery acid when heard in the chamber but, in the hall, they're just regular strings.

Even so, in the past, it has been reported by some that the instrument was too loud and I can well comprehend that, at full bore, it is. I have to wonder, though, how much of that criticism was directed at the 130 ranks of mixtures which provided a brilliance that was almost unknown at that time. It is a fact that some people confuse brightness with volume and I suspect that at least some of the "volume" criticisms had

more to do with acceptance of the previously unheard clarity of tone.

Richards was largely alone in his appreciation of the importance of mixtures on this instrument. Even Seibert Losh disagreed with him on the subject and in his unpublished book *The Physics of Music* wrote "...let us have smooth and beautiful tone and plenty brilliant too, and not too many mixtures!" [the underline and exclamation are Seibert's]

On the whole, I was pleasantly surprised by the condition of the Echo organ. Nothing appears damaged beyond repair but this is not to underestimate the amount of work that will be needed to get the department working again. It's probable that everything will have to come out of the chamber at some stage but, for the time being, I'm just grateful that it's not a pile of sodden wood and bent metal.

The floor of the chamber appears to be nothing more than planks of thick lumber laid across the building's girders. Light is visible between some planks and the suggestion must be that sound can escape through these gaps too. Also, there are some large holes in the chamber's roof (the chamber is, in effect, a box within the roof space) which must let out sound. The degree of expression afforded by the shades made of Duralium — an aluminum compound — must also be questionable.

Neither Richards nor Losh seems to have mentioned the crescendo/ diminuendo effect obtained from these shades but both referred to the "lightening speed" at which they moved. Other people, however, report that they are a fault — rather than the feature which Richards and Losh tried to make them out to be. Richards originally specified wooden shades throughout (which, he said, when closed, should reduce a department's output by 50%) but only the Swell and Swell-Choir boxes have them. Aluminum and iron shades are also to be found in the instrument.



A general view of the Echo organ

In the middle, at the front of the chest, is the *Trumpet Minor* with the *Cor d'Amour, Wald Horn, Spitz Flute,* etc. behind it. Seen on the right are capped *Tibia Mollis* pipes and swell shades.

The Echo Organ Continued

It is not clear why Richards departed from the contract specifications but he may have been attracted by the fact that the aluminum/duralium design allowed even more sound to pour out of the instrument. At present, none of the shades are operative so it is impossible to judge their effectiveness — or not, as the case may be.

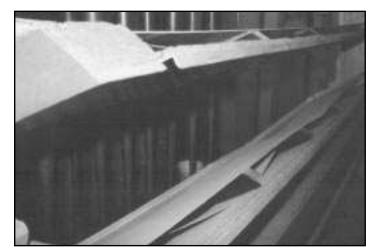
Although I have been visiting Atlantic City since 1990, I had never previously been in either of the Upper chambers, so I felt that I had some catching-up to do regarding the Echo and Fanfare organs. Over a period of several days and nights, I spent more than a dozen hours in these chambers, sketching the layout of their chests and stops and making other notes.

As I mentioned in the previous issue of *the Grand Ophicleide*, the Echo organ is somehow a quiet, tranquil place — perhaps like the reading room of a library. This atmosphere was so pervading that even the conversations which we had there were conducted *sotto voce*.

However, before leaving the chamber for the last time I felt it would be nice if at least some of it could be heard again. So, late one night (or, rather, very early one morning), I used my flashlight to strike the notes of the Westminster chimes on the percussion stop. Frankly, I was rather startled by the clang of the notes, which I thought were surprisingly loud and very rich in harmonics. I listened to them die away in the hall — which, with the ceiling removed, had more reverberation than usual. I then left the chamber, closing and locking the door behind me.



The four largest *Tuba d'Amour* pipes are laid on top of the relay room



Aluminum swell shades

These are similar in construction to those made of duralium. Two parallel sheets are kept apart by an undulating third sheet. This design allows sound to pass through the shades as well as around them.

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The Chimes

The four missing notes are laying nearby on the floor. To the right are some *Tuba d'Amour* pipes and the single stopped pipe belongs to the lowest octave of the *Clarabella* — the Echo's only wooden flute.

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