

Church of South India
Church of St John the Baptist
East Marredpally, Secunderabad



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A conducted tour around the **Pipe Organ** *and also hear it being played*

by

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Honorary Organist & Choir Director

- An Organ is a wind instrument with a keyboard to play on
- Generally, the term "Organ" always referred to a pipe organ or a reed organ
- The electronic keyboard having come in, we now specify - 'pipe organ', 'reed organ', 'digital organ'
- An organ has one or more keyboards called '**manuals**' and a **LARGE KEYBOARD** called '**pedal board**'
- The manuals are generally named as - Great manual, Swell, Choir, Echo, Solo and so on
- The organist plays on the "manuals" with his left & right hands like a pianist **BUT simultaneously** plays with **BOTH his feet on the pedal board** to produce the deep 'bass' notes:
- The manuals are generally named as - Great manual, Swell, Choir, Echo, Solo and so on
- A pianist reads 2-stave music - a treble clef (*right hand*) and a bass clef (*left hand*)
- An Organist reads 3-stave music - a treble clef (*right hand*), a bass clef (*left hand*) another bass clef (*feet*)

The "three sub-systems" of a Pipe Organ

- The three sub-systems are: (1) Bellows (2) Wind chest & pipe ranks (3) Keys & stop action (see Fig-1)
- All three sub-system are intricately linked to make music at the command of the Organist (see Fig-2)
- The large sectional drawing shows the inter-link and a walk-around gives you a better understanding

The "Wind chest & Pipe ranks"

- An Organ has different sets of pipes to produce different quality of sound or *timbre*
- Each set of pipes is called a rank of pipes and is controlled by a "stop"
- An organ generally has several ranks of pipes controlled by as many stop knobs
- Some "stops" produce exquisite soft sounds and some others make loud music
- The sound from these ranks range from very soft to very loud
- Like an artist adds colours in his palette, by pulling a variety of 'stops' we create a tonal palette
- By "coupling" one manual to the other we can add a variety of tonal resources from the other manuals
- couplers - mixing available tonal resources

The "Bellows"

- Like a "harmonium" whose bellows is operated by hand to fill the reservoir with low pressure air, the bellows-cum-reservoir of the pipe organ which is about 100 times or more larger than that of a harmonium, is filled with air from a motor-driven blower.
- In the olden days, before electric blowers came in, bellows were hand-operated to fill the reservoir. - Some organs even today have manual blowing.
- This low pressure air from the reservoir is connected up to the wind-chest where all the pipe ranks are seated waiting to make a 'sound' when the organist 'presses' a note or some notes

The "Keys & Stop action"

- The organ manual generally has 61 keys (5 octaves). But many other organs including this one in our church organ has only 56 keys.
- When the organist presses a key, he actuates a series of lever mechanisms, which finally "lets in" the "waiting air" into the pipe just above it and the pipes start 'speaking' or making the appropriate sound.
- Different set of pipes are brought in to contribute their designated tonal colour through a set of knobs call the stops. You can see them on both sides of the key board.
- Pulling a 'stop' makes the air available at the bottom of the pipes BUT it starts sounding only when the organist presses a key.
- If one stop is pulled and one key is pressed only one note (pitch) sounds. If the same notes is presses and 'two stops' are pulled you will hear two pitches simultaneously

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Some Illustrations with figures

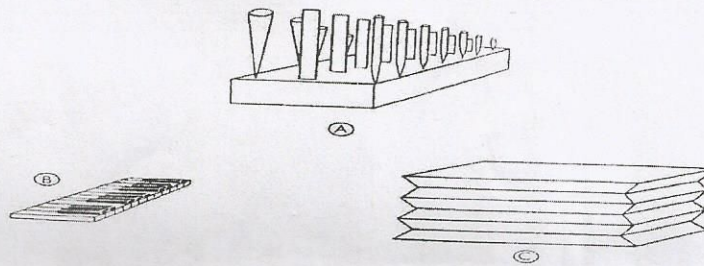


Figure-1 The sub-systems of a pipe organ

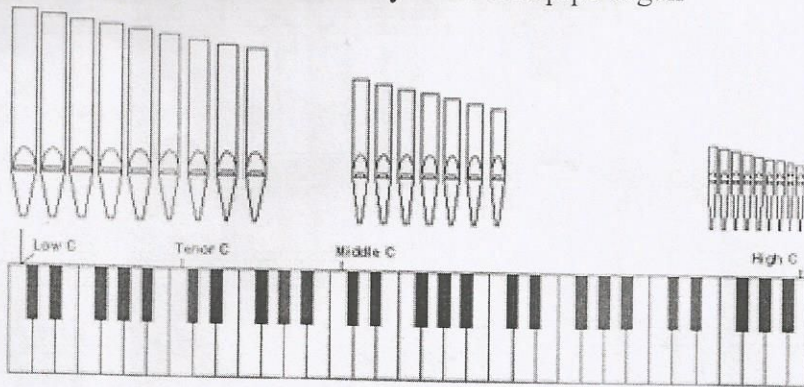


Figure-2 The manual & a rank of pipes (*one each per note*) above on the wind chest

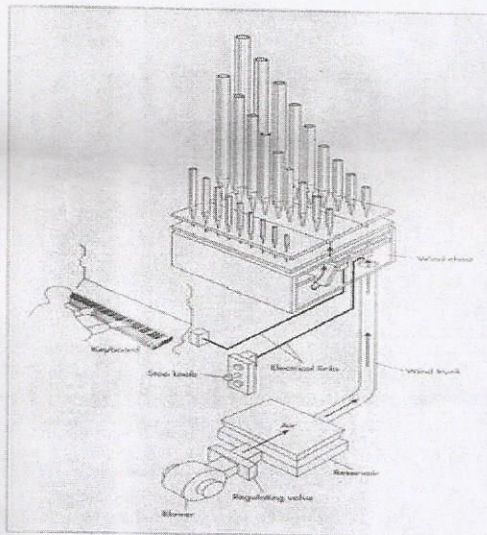


Figure-3 The three sub-systems (*wind-keys-pipes*) shown integrated

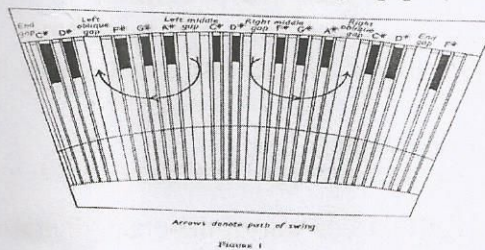


Figure-4 The Pedal Board or the Pedal Clavier (*played by both feet*)

Abide with me

Tune: Eventide

Musical score for 'Abide with me' (Tune: Eventide). The score is written for two staves (treble and bass clef) and consists of three systems. The first system has 8 measures, the second has 8 measures, and the third has 8 measures. The key signature is one flat (B-flat) and the time signature is 4/4. The music features a simple, hymn-like melody with a steady bass line.

Tune: Eventide (3-stave version)

Musical score for 'Abide with me' (Tune: Eventide) in a 3-stave version. The score is written for three staves (treble, middle, and bass clef) and consists of three systems. The first system has 8 measures, the second has 8 measures, and the third has 8 measures. The key signature is one flat (B-flat) and the time signature is 4/4. The music features a simple, hymn-like melody with a steady bass line. The first system is marked with a '7' above the first staff, and the second system is marked with a '12' above the first staff.

Some websites to visit:

1. The Grand Organ of St Paul's Cathedral
<https://www.youtube.com/watch?v=XqP-2-yVRbs>
2. Richard Hills demonstrates the Royal Albert Hall organ - BBC Proms 2013
<https://www.youtube.com/watch?v=HcKFkNJrrKk>
3. HUMC Pipe Organ Tour
<https://www.youtube.com/watch?v=d7a-PF5vIDA>
4. Digital Organ versus Pipe Organ
<https://soarabove.wordpress.com/2011/10/05/war-of-the-organ-digital-vs-pipe/>