LSO & SCOTS TRAINING DAY - SATURDAY 18TH FEBRUARY

WORKSHOP TUTOR - ALAN MATHEW
Hymn Accompaniment, Leading Singing,
and Registration etc.

Entry level workshop will consist of four elements:

1. the design of the (pipe) organ,
2. how that translates to the digital organ and how to get the best out of digital organs,
3. the technique of accompanying hymns, both on digital and pipe organs,
4. interpreting hymns using simple registrations

More advanced players will discuss (1-4) but move onto:

5. interpreting hymns using more complex registrations
6. hymn accompaniment - more complex arrangements, descants, organ arrangements, transposition

1. DESIGN OF THE PIPE ORGAN

A pipe organ produces sound by air vibrations created in an organ pipe, which is controlled by a musician from a keyboard, or set of keyboards and a pedal board (this is usually called "console")

HOW IS SOUND MADE BY THE PIPES?

Sound is air that is vibrating. It's like when you blow across the top of a bottle - it makes a note, a sound that has a specific frequency of vibration called pitch. Similarly, one organ pipe produces one tone at one pitch; a given pipe is not mechanically manipulated in some way to produce multiple notes like a flute or guitar string. Since there is just one pipe for each note, a keyboard with 61 notes (5 octaves) would have 61 pipes, one for each note.

The one set of pipes for each note on the keyboard makes just one kind of sound. The organ will have several sets of pipes; each of these sets of pipes is called a rank, which can make different sounds. This is similar to an orchestra which has many different types of instruments, each having its own characteristic sound.

If a keyboard of 61 notes controls a group of 10 ranks of pipes, there will be 610 pipes playable from that keyboard. There are many more pipes in an organ than the ones you typically see on the front case.

WHY CAN'T YOU SEE ALL THE PIPES?

The pipes are arranged on a wind chest as shown the picture (pass around picture - Appendix 1) and typically only the main Principal stop is

visible. The wind chest and pipes are enclosed on the sides and back by a case so that the sound projects out the front more clearly. It's like when you're shouting to someone and you hold your hands up by your mouth to help project the sound so they can hear you better. The organ case acts the same way, projecting the sound into the space.

HOW DO YOU TELL WHAT KEYBOARD IS WHAT?

Generally, the top manual (the one furthest away) is the Swell and the bottom manual (the one nearest you) is the Great - if you are sitting at a two-manual organ.

Keyboards (manuals) - usually there are two manuals the Swell and the Great. The Swell will usually be under "expression" (i.e. you can control the volume by means of a foot pedal) and the Great will not be under expression.

BY LOOKING AT THE STOPS HOW CAN YOU QUICKLY TELL IS IT A SWELL OR GREAT STOP?

- Stops like Bourdon, Open Diapason, Principal, Super Octave, and Dulciana tend to be located on the Great Organ.
- Stops like Oboe, Horn, Gemshorn, Voix Celestes, Voil D'Orch, Stopped Flute tend to be located on the Swell Organ

THIS ISN'T AN EXACT SCIENCE SO GETTING TO KNOW THE ORGAN YOU ARE PLAYING IS IMPORTANT. TAKE TIME TO LISTEN TO EACH STOP CAREFULLY AND GET TO KNOW IS IT A SWELL STOP OR A GREAT STOP.

PIPE FAMILIES

There are two types of Pipe - Flues and Reeds

- FLUE PIPES are like a "whistle". Flue refers to the "slit" through which the air passes to set the air inside the pipe vibrating.
- REED PIPES are like a "part horn". The sound is generated by the air causing a "reed" to vibrate which results in the air in the pipe vibrating.

There are four tone families:

- PRINCIPAL tone is the most basic and most recognised organ tone. Some organists refer to these stops as the "foundation" stops to the organ.
- FLUTE tones are softer than the principals and have subtle tone and "colour".
- STRINGS are usually softer than the principals but in a different way to the flutes. There are also "hybrid" stops that combine gentle flute tones with string tones.

PRINICAL, FLUTE and STRING families are all FLUES.

- REEDS are a tone family all to themselves. Reeds can be sub-classed into Chorus Reeds or Solo Reeds. Chorus Reeds are used to add that bit of fire and power to large combinations of stops.

Flute	**PRINCIPAL**	*string*	*REED*
Softer and "fatter" (fewer overtones) Great variety within this family	Basic "organ" sound (balanced overtones)	Softer and "thinner" (enhanced overtones)	Distinctive and/or powerful (abundant overtones)
Gedeckt, Bourdon, Subbass Any kind of *Flute* or *-flöte* (German) *Stopped Diapason, Nachthorn, Copula, Clarabella, Melodia*	*(Open) Diapason, Prestant, Montre* Any interval (*Octave, Twelfth,* etc.) without an indication of another tone family	*Salicional, Gamba, Voix Celeste** Any derivative of Viol *(Viola, Viole de Gambe, Violone...)* *Gemshorn* (pronounced with a hard G: GEMS-horn) is really a hybrid, but usually tends more toward string tone than flute tone	Any name of a reed or brass instrument. Some common foreign language examples are: *Hautbois* (Fr. oboe), *Fagot* (Ger. bassoon, emphasis on second syllable), *Posaune* (Ger. trombone) Some common medieval/renaissance examples are: *Krummhorn* or *Cromorne, Schalmey* Other fairly common reeds: *Bombarde, Clarion*

PITCH

Organ stops arranged in "lengths" which all affect the pitch. Let's start with 8'. An 8' stop is unison pitch - which is the pitch you would sing at or play on the piano.

A pipe half as long sounds one octave higher. Therefore it is a 4' pipe. Similarly 2' sounds an octave higher than 4'. Now, going the other way - a 16' (double the length of our "unison" stop) would sound an octave lower.

Mutation stops are a little different. They are not arrived at by doubling or half the pipe length for example. If you divide an 8' by an odd number, normally 3 & 5, you get pitches like 2 2/3' and 1 3/5'. Don't use these stops on their own, use them combined with others.

MULTI RANK STOPS

Everything we've looked at has been single ranks of pipes (i.e. one pipe per note). When two or more ranks are combined for a single stop we call it Multi Rank, usually the number of ranks is indicated by Roman Numerals in place of the pitch length. The most common Multi Rank stops are "Mixtures" usually these are III or IV rank.

2. HOW THAT TRANSLATES TO THE DIGITAL ORGAN AND HOW TO GET THE BEST OUT OF DIGITAL ORGANS

ELECTRONIC ORGANS

Electronic circuits generate the sound in these instruments. The older analogue organs used vacuum tubes and then transistor circuits to simulate pipe sound. Most of these were not very realistic but they still have a good sound that can be used in the worship service. Beginning in the early 1970's organ sounds were simulated using digital techniques. These produced a much closer approximation to real pipe sound.

With modern digital technology, electronic organs have improved greatly. However, just because something has a computer in it, it doesn't mean its better. Digital sound samples from real pipes are used now to create the sounds, but one must still pay attention to the balance of sound within an individual rank, between ranks in one division, and between divisions.
These issues apply to any organ design, pipe or electronic.

Like the modern trend in software of "feature-its", organ builders must be careful not to get caught in the trap of making organs that focus on unique stop sounds randomly collected and miss the balanced design of the overall instrument so masterfully done by the best builders in history.

PIPE VS DIGITAL

Tips and things to watch out for:

a) Test all your stops - how do they sound? Is it a realistic sound? Is it pleasing to the ear?

b) Just because you have a large amount of stops at your disposal on a digital organ, it does not mean you have to (or will) use all of them.

c) If you pull all the stops out you will have a "thick", "murky" and "unclear sound".

d) If you can't hear a stop then it is not adding anything to the combination of stops you have selected. By carefully selecting stops (on both pipe & digital) you can create a bright and clear sound that will encourage and support your congregational singing.

e) Digitals have advantage of usually having "Bass Coupler" so that organists who are not fully pedal ready can have the full round sound

f) Digitals tend to have a transposer function, so that you can easily adapt the key to suit singers.

3. THE TECHNIQUE OF ACCOMPANYING HYMNS

Main areas that will aid good Hymns Accompaniment are:

a) Practice & Accurate notes

b) Solid and confident rhythms

c) Clear introduction or play over (introducing the hymn, mood, tempo etc)

PRACTICE & ACCURATE NOTES

- Simple arrangements to support singing is preferred to struggle with something beyond your ability (either as a keyboard player or an organist)
- For example in "Praise my soul the King of Heaven" you can use the simpler 4-part verse for each stanza, rather than trying to play the different unison versions.
- Remember you are playing in front of people and nerves might get the better of you. It's better to play something simple competently rather than make a hash of something more difficult - remember that!
- It can also be better to play manuals only to begin with then add the pedals. Supporting singing playing manuals only in the first instance can provide use, rather than awkwardly trying to incorporate a pedal line that you're not yet comfortable with.
- Pencil in fingering should you need to, and Make notes as to what manual you are using, or pedalling. This could come in handy next time.
- Play with a smooth legato touch. I was introduced to "slip fingering" as a youngster. You cannot depend on a sustain pedal as you would in a piano.
- Inner notes (such as Alto/Tenor/Bass) can sometimes be shortened just a tad to help with phrasing and shape. By doing so the melody line has a little more precision. You could pencil in these markings also, but after a while it will become second nature.
- DEMONSTRATE WITH APPENDIX 2

RHYTHM

- Once you are comfortable playing the hymn try singing it without playing. Make sure you can fit the words in. If you can't, then neither can your singers! Find a comfortable tempo. Remember to bear three main things in mind
    1. How many people are you supporting (size of congregation & choir)
    2. The size and any acoustic of the building and
    3. The mood and sentiment of the hymn itself.

- Once you decide on a speed, stick by your guns! A congregation may drag or sing a little slower (that may be their custom if you're adeputising organist) but they will eventually sing to your beat, leading to more robust singing.
- Phrasing - allow phrases to breathe - Shorten very slightly the end note and have a brief silence. DEMONSTRATE WITH APPENDIX 3
- Gaps between verses - be consistent! Every gap should be the same. My technique is to try and count two clear silent beats before beginning the next verse.
- It is sometimes necessary use a more detached playing style - which is not contradicting the general legato playing style with I previously mentioned.

  For example "Woodlands" is a bouncy and bright hymn tune and should be played in that fashion. By detaching the first three crotchets before the dotted minimum you quickly take the singers with you and set the brighter feel almost straight away.

  Another added effect of this style in large buildings with a long echo is that it makes the beat clearer and the pulse less "mushy".

PLAYOVER & INTRODUCTION

- Reminds singers of the tune
- Lays down the tempo from the very beginning
- Helps set the mood and character by the speed, and choice of your registration.
- Always begin with the start of the melody - never play the last phrase! How are people meant to know how it starts?
- Choose the length carefully

4. INTERPRETING HYMNS AND REGISTRATIONS

A player interprets the hymn by looking at the words, exploring their meaning, feeling their sentiments and capturing the mood.

Sometimes, the set tune to a hymn will very quickly determine the mood of the hymn. At other times, it may be necessary to change tune set in the hymnal - for example O for a thousand tongues in CH4 is set to both "Lyngham" and "Richmond". If the service has an overall relaxed and meditative feel then "Lyngham" wouldn't be very appropriate. "Richmond" on the other hand is a little more subdued and would therefore be a better choice.

Stop Choice (or more specifically the colour tones you choose through stop choice) plays a key role in conveying the message of the words to

the congregation and suggests the volume and with how much "gusto" they would sing with.

Stop choice (or Registration) needs careful planning. You will have practiced the hymn and be able to play it. You will have selected an appropriate tempo and have made sure that you can sing it (i.e. it's not too slow or fast) and by reading the words you will have an idea of the mood and sentiments it's conveying. You will also know (hopefully) of where it is placed in worship - Opening hymn, a middle hymn or a closing hymn.

The registration (stop choice) that you choose should always be clear and be able to lead effectively.

As a general rule of thumb you should always include at least one principal (8') stop (i.e. a robust diapason or principal) even in a gentle hymn. These stops speak clearly and are sufficiently strong enough to support singing.

In addition to this rule try and use a 4' stop in combination. By adding the 4' (in essence playing at pitch and one octave above) you get a clearer sound and means that most people singing the melody hear it more easily.

Also, and finally (!) you should have 16' in the pedals giving a depth and an overall roundness to the sound and 8' (whether this is a Pedal stop or the swell/great coupled down).

Your play over & introduction should not be louder than your first verse. You have set a mood in your play over and this should build into a first verse. Some organists use the Swell for play over then move to the Great (with swell coupled through). If need be the 2nd verse may be a little quieter, one the congregation are settled.

Simple stop changes between verses can add colour and help "tell the story". I say simple stop changes so that the rhythm, mood, and pulse you have created are not interrupted. Nerves can have an effect and over ambitious changes can unsettle an experienced organists playing and have a knock on affect to the congregations confidence.

Don't use string stops to accompany hymns they are too soft.
Don't use mutation stops on their own to accompany a hymn.

Some suggestions to register for "Crimond" using the 23rd Psalm as it's text might be:

Prepare the following stops:			
Great:	Principal 8' Octave 4'	Swell:	Rohr Bourdon 8' Geigen Octave 4'
Pedal:	Principal 16	Couplers:	Swell to Great Swell to Pedal

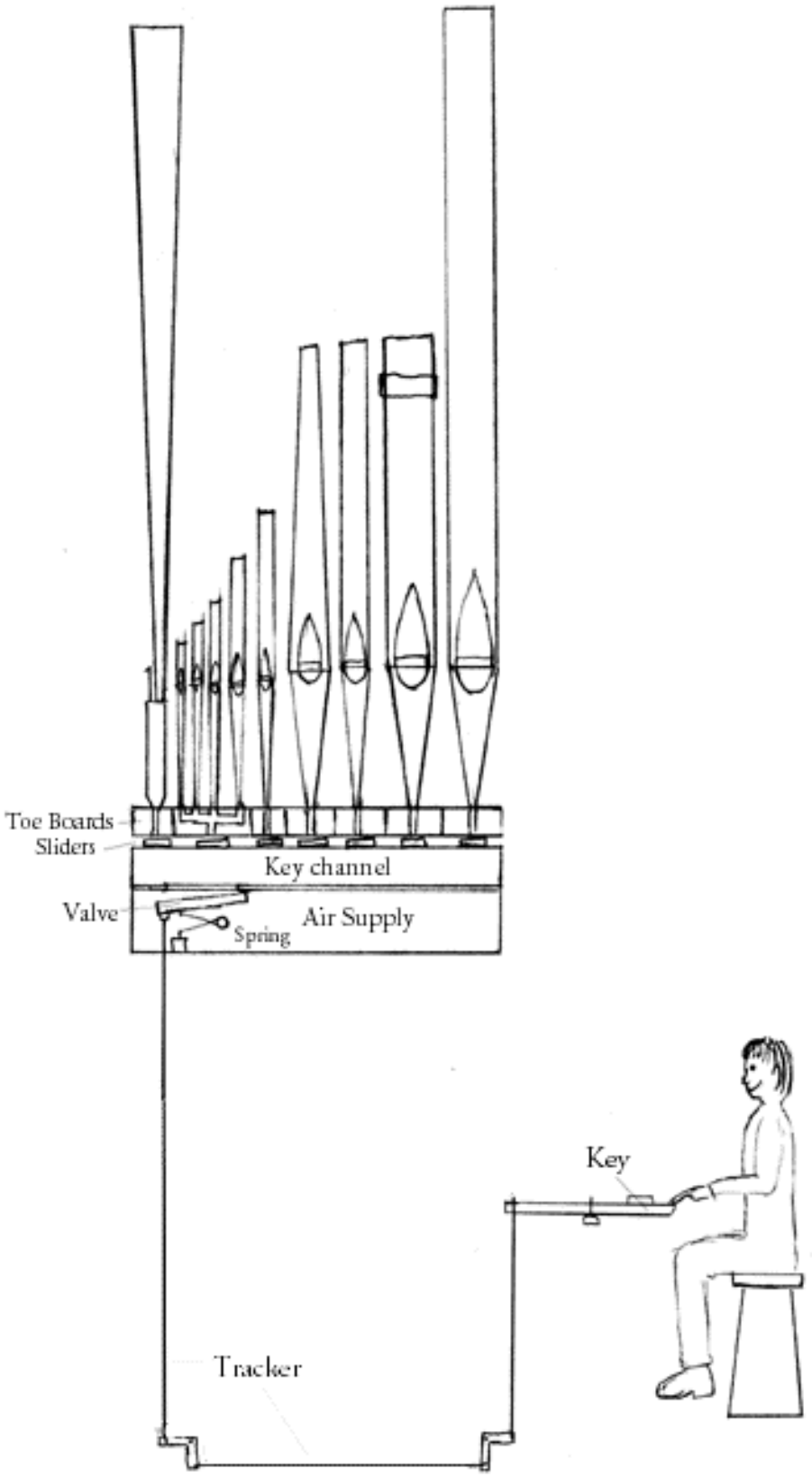
1. Introduction: play on Swell, with pedals
2. Verse 1: Move to Great, continue with Pedals and add Great to Pedal
3. Verse 2: take away the Great Octave 4', still with pedals
4. Verse 3: take away Great to Pedal, add Hautbois 8' on swell, and play on swell with pedals
5. Verse 4: Return to Great. Add Great to Pedal and Great Octave 4', continue with pedals
6. Verse 5: Add Great Mixture IV and Pedal 16' Bombarde, continue with pedals

DISCUSS WITH GROUP THE ABOVE.

FURTHER DISCUSSION:

1. How might other stops help colour and interpret hymns?
2. Solo on great, accompany on swell?
3. How would you register a ladies only verse?
4. How would you register a men only verse?
5. More changes perhaps in the middle of a hymn (i.e. Dear Lord and Father last stanza)
6. Intonations to use as part of the play over, or as a link between the penultimate and last verse?
7. Alternative arrangements for last verse?
8. Descants - if you have a suitably competent choir?
9. Using the tenor line as an interal counter melody?
10. Using the Alto line as an obligato?
11. Changing key moving into last verse?
12. Using the Organ to accompany contemporary Worship Songs and Hymns? Yes / No?

Appendix 1



APPENDIX 2