MAKING MUSIC WITH DECOUPLED ORGAN PIPES

JAKE RANDELL

CONTENTS

i. INTRODUCTION

This collection of tasks, studies and activities is designed to guide and support a group of participants as they make music with organ pipes than have been decoupled from the instrument. The primary focus throughout this book is to encourage participants to explore the performability of organ pipes, using them as handheld, mouth-blown instruments and as components within interactive sound installations. All actions and sounds will be explained in layman's terms, allowing anyone to participant, regardless of their performance experience, skill level or understanding of musical notation.

A collection of organ pipes provides an exciting opportunity for relaxed and informal music-making, where the ethos of this activity should be understood as investigating and experimenting without concern for a correct or proper approach. Instead of aiming towards a more polished performance, keep challenging yourself to discover new sounds. You are encouraged to discuss and demonstrate any actions and sounds you feel are interesting with other participants, and you may also like to keep a personal log of these findings to help you recall them later.

The activities have been designed with your learning and development of new skills in mind. You will find that, as you progress through the sections of this book, actions will be introduced gradually and there will be plenty of opportunities to practice techniques in isolation before combining them. As the activities become more complex, their will also be opportunities to explore creative tangents and further challenge your abilities.

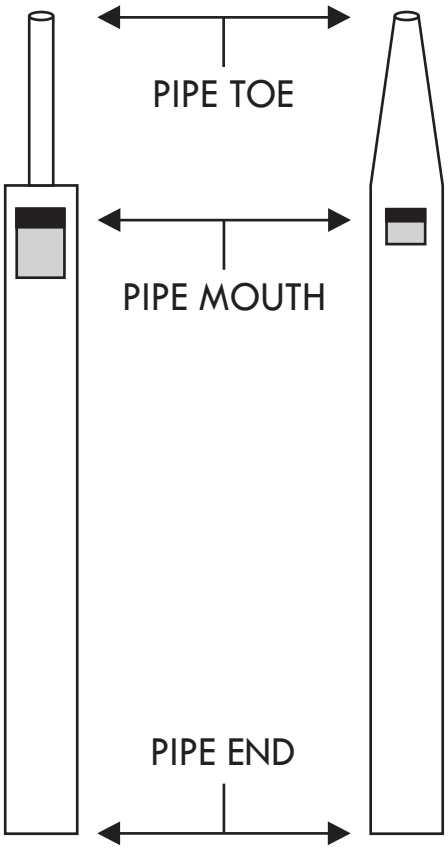
All participants will require a copy of this book. The instructions have been designed to be read by each participant, instead of a designated person disseminating the information to the group. While a group may find it useful to nominate a person to oversee the preparation of materials and equipment, each participant is encouraged to first engage individually with instructions and then discuss ideas with other participants. To allow the group to self-organise throughout a session, you may wish to nominate different participants to oversee each activity or series of activities, as this will allow for responsibilities to be shared. Most importantly, participants should remain open and willing to listen to the ideas and interpretations of others.

MATERIALS AND SETUP

The number of organ pipes required will depend on the size of the group: ideally, there should be at least 3 or 4 pipes per participant. While there are not specific types of pipes that should be used, each pipe should be small enough so that you are able to comfortably hold it in front of you and use either hand to cover the pipe end. If the pipes you are using have stoppers (leather or cloth-covered seals fitted in pipe ends), these should be removed. These requirements ensure that the actions described in activities will be appropriate for your pipes.

To prepare for a session, all pipes will need to be fitted with disposable hygienic mouth covers. An effective solution is to purchase a box of latex-free disposable gloves, use scissors to cut off each glove finger and stretch these fingers over each pipe toe. Once in place, you may then cut a small hole in the glove finger to allow air to be blown into the pipe toe (labelled below). At the end of a session, used covers can then be easily removed and new covers can be fitted before the next session.

At the start of each session, once all pipes have been fitted with covers, they should be arranged in a line across one side of the space. During the warm-up tasks, this will ensure participants may easily gather their own collection of pipes.



WARM-UP TASKS

The following warm-up tasks should be performed at the start of each session by all participants. These tasks will guide you through the process of gathering a personal collection of pipes and beginning to learn the variety of ways they can be sounded. Take your time with each task and enjoy familiarising yourself with your pipes. Only you will use these pipes throughout the session.

1

GATHER

Gather a small collection of organ pipes. As a group, ensure everyone receives at least 3 or 4 pipes. Spread out within the space and sit or stand with your collection of pipes resting on the floor.

2

ORGANISE

Familiarise yourself with your pipes. Throughout the session, only you will use your pipes. Try blowing air through each pipe to discover how they sound. Once you have explored your pipes, arrange them however you wish on the floor in front of you.

3

QUIET SOUNDS

Very gently blow air through your smallest pipe to produce a long, quiet sound. Explore how quiet you can make this sound without it beginning to quiver or break. On each attempt, take a deep breath, sustain the sound for as long as possible, then relax and repeat the process. Once you have tried this several times, explore the same process using your other pipes. Keep challenging yourself to produce even quieter sounds.

4

GRADUAL CHANGES

While sustaining a quiet sound using one of your pipes, very slowly increase the air flow through the pipe until you feel you have reached a medium volume. Once you have tried this several times, explore the same process using your other pipes. You may adjust what you judge to be medium volume for each of your pipes, based on how much effort is required and the volume level you deem to be in the middle of your range. Practice slowly changing between low and medium air flow, exploring how smoothly you can transition between these states.

5 FULL RANGE

While sustaining a quiet sound using one of your pipes, increase the air flow through the pipe until you feel you have reached a high volume. Once you have tried this several times, explore the same process using your other pipes. As in the previous task, you may adjust your judgement for each pipe, based on how much effort is required and the volume level you deem to be towards the top of your range. Practice changing slowly and quickly between low, medium and high air flow, exploring how smoothly you can transition between these states.

6 SHORT SOUNDS

Select your smallest pipe and create a sequence of short sounds. As you continue, gradually try to make each sound shorter than the last, until you feel your sounds are as short as possible. At this point, continue to produce these sounds, while gradually making each sound quieter than the last. Once you feel able to consistently produce very short, quiet sounds, change to a different pipe and attempt to achieve the same type of sound. As you become more comfortable with this task, occasionally alternate between very quiet and very loud sounds to test your ability to quickly change the air flow rate.

7 MOUTH POSITION

Select your smallest pipe, hold the pipe toe a hands-width from your lips and blow. First, slowly change between low and high air flow rates while keeping the distance between the pipe and your mouth constant. Next, slowly bring the pipe towards your lips while keeping the air flow rate constant. Once your lips are almost touching the pipe, hold this position for a moment, then gradually move the pipe away from your lips again. Experiment with this movement and different air flow rates, exploring the maximum distance from which you can blow air towards the pipe and still cause it to produce a sound. Once familiar with these actions, repeat them with each pipe in your collection.

8

HANDS

Hold your largest pipe so that the palm of one of your hands is resting against the side of the pipe near the pipe mouth. While producing a long, quiet sound, slowly move your palm and/or fingers over the pipe mouth. You may experiment with different types of hand movements, including sliding your palm/fingers over the pipe mouth or gradually levering your palm/fingers over the pipe mouth. Consider how each movement affects the change in sound. Once familiar with this action, try to apply the same hand movements to the pipe end. You will need to position one hand close to the pipe end so that you may gradually slide or lever your fingers/palm over the end. Once familiar with covering the pipe mouth and end, try these techniques with each pipe in your collection and experiment with different air flow rates and hand movement speeds.

9

SINGING

Select your smallest pipe and produce a long, quiet sound. While sustaining this sound, try to sing a note at the same time. This may feel strange or counterintuitive at first but keep trying until you are able to sing in any way while continuing to sound the pipe. As singing higher, lower, quieter or louder pitches will impact your ability to keep sounding the pipe, you should experiment with different approaches. As this action becomes more familiar, try to change the pitch (high or low sounds) and/or volume of your singing while sustaining the same pipe sound. Once you feel able to sing in different ways while sounding the pipe, try to apply this technique to each pipe in your collection.

10

COMBINATIONS

Now you have tried each technique in isolation, you should explore combining actions to further manipulate your sounds. As the previous tasks will have demonstrated, your actions must always be adjusted to accommodate for the size of pipe, and the sonic possibilities of each pipe may not be equal. Revisit each task and consider how the actions described may be performed alongside another. There are many combinations of variables for you to explore: as you practice varying your air flow rate, mouth position, hand movements and vocal techniques individually, your ability to explore them simultaneously will gradually improve.

STUDIES

The following studies provide an opportunity to further develop your techniques. Like the warm-up tasks, they gradually progress from simple to more complex actions, and will allow you improve your understanding of how each of your pipes will respond to a variety of actions. It is important to note that participants are not required to explore these studies before moving on to other activities. They are there for any participants with an interest in further experimenting with the techniques introduced in the warm-up tasks.

The type of graphic notation used for the studies is different from the textual instructions found in all other activities in this book. The studies utilise a form of time-space notation, where the duration of sounds is represented proportionally from left to right. You do not need to have any prior experience of this type of notation to explore the studies, as all key information will be explained as you progress from one technique to the next. While the notation may be different from the other activities, the ethos should remain the same: mistakes, limitations and unexpected outcomes are to be expected, and you should focus on enjoying the process.

STUDIES 1-5: LOW AIR FLOW

Below are five separate studies that test your ability to produce very quiet sounds. I will use these studies as an example to explain how to interpret this form of notation. For each study below, you will see "Air Flow" marked above the guidelines. This indicates that you will be exploring the rate at which you blow air into your chosen pipe. The action that you must perform is indicated by the bold line that moves across each study.

You will see that the guidelines for Air Flow are marked "Low" and "High": "Low" indicates blowing very gently into your pipe; "High" indicates blowing hard into your pipe; halfway between these levels indicates what you judge to be medium air flow. The vertical position of the bold line as it moves across the study indicates how to vary your action.

Across all studies, there is no indication of exact durations for individual actions or entire studies. Instead, you must use the proportions of the bold lines across each study as your guide for determining durations. As you experiment with different pipes, you will need to adjust durations and your effort levels for each study. There are no rules controlling when you may take breaths before, during and after each study: instead, you are encouraged to try different approaches to breathing to investigate how this affects the overall timing of each study.

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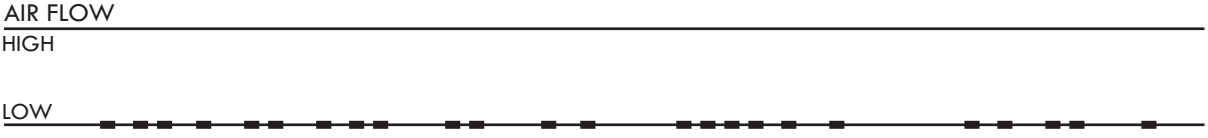

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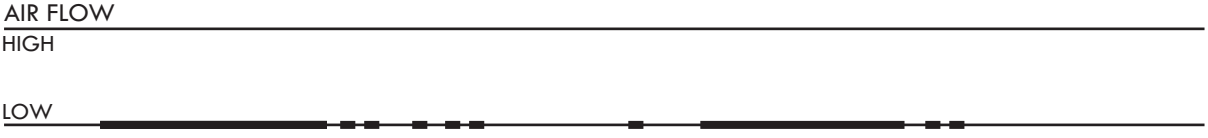

STUDIES 6-10: LOW AIR FLOW WITH SMALL, GRADUAL CHANGES

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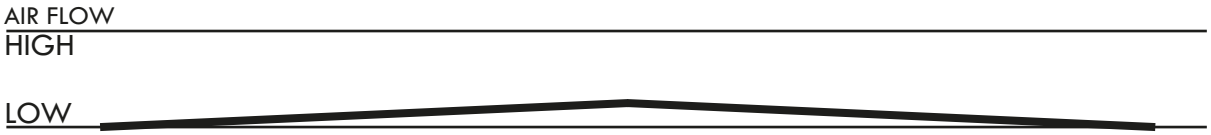

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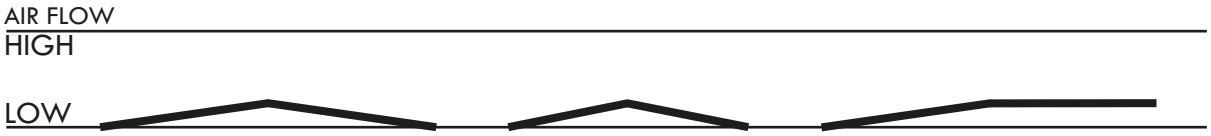

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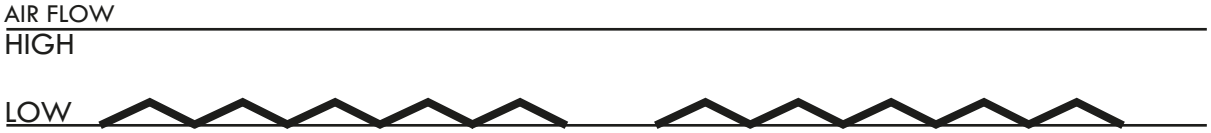

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STUDIES 11-15: MID AND HIGH AIR FLOW

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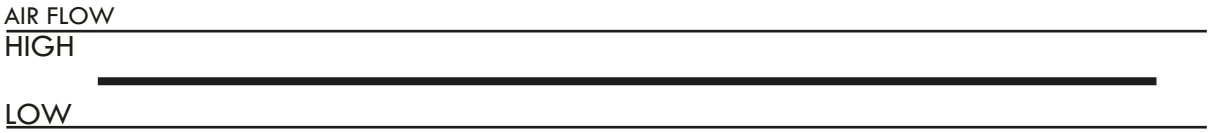

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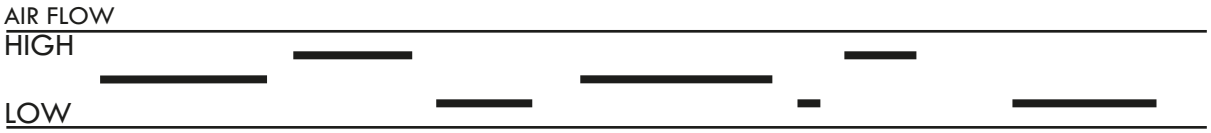

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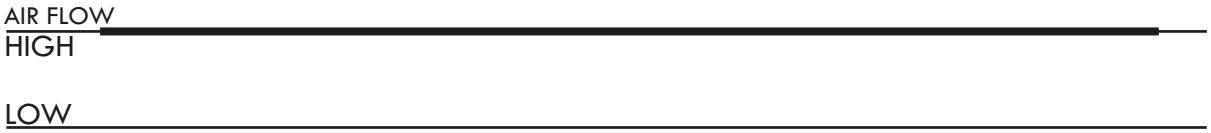

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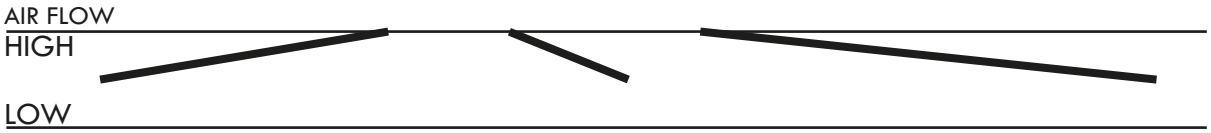

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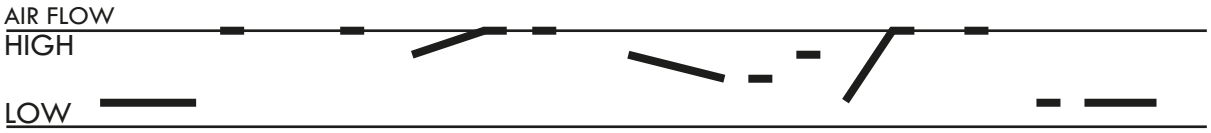
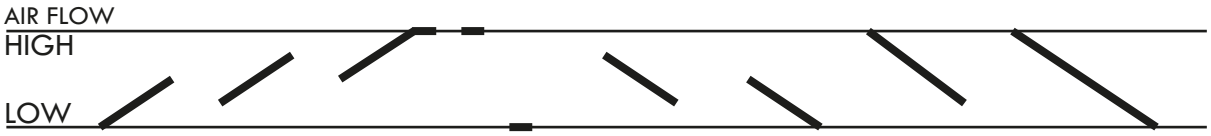


STUDIES 16-20: LOW, MID AND HIGH AIR FLOW

16

17



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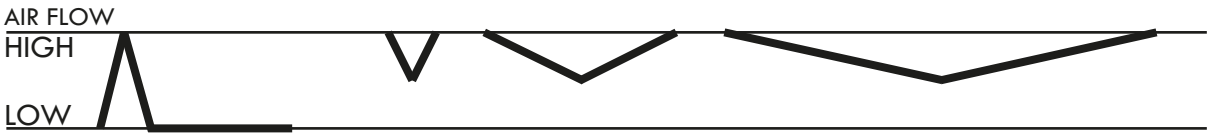

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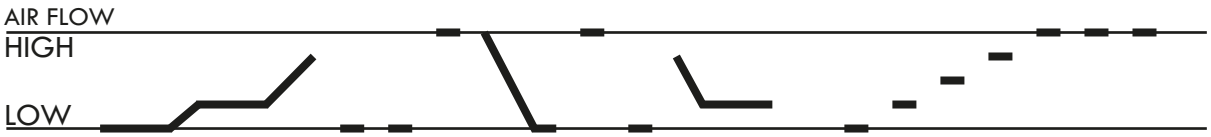
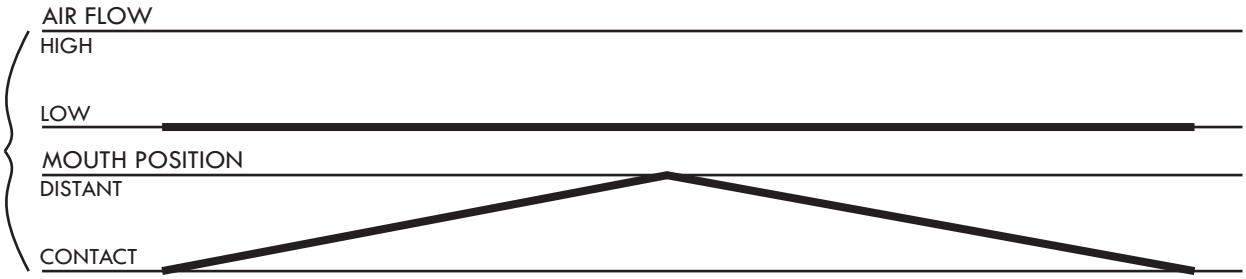


STUDIES 21-28: MOUTH POSITION

The following studies explore varying the distance between your lips and the pipe toe. The "Mouth Position" guidelines indicate the distance you should hold your pipe from your lips; "Contact" indicates a normal playing position with your lips in contact with the pipe; "Distant" indicates holding your pipe a hands-width from your lips. You will need to follow the air flow and mouth position instructions simultaneously for each study. Within studies 27 and 28, you will see "/p/" marked above mouth position actions: this is an instruction to produce an unvoiced "p" sound with your lips, releasing a burst of air towards the pipe toe.

21



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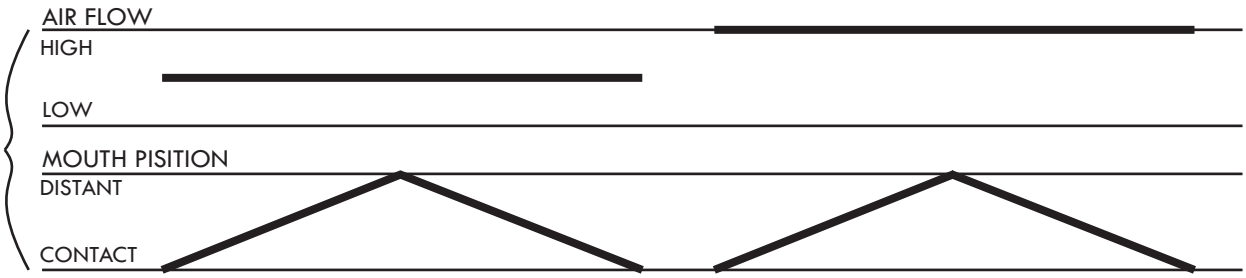

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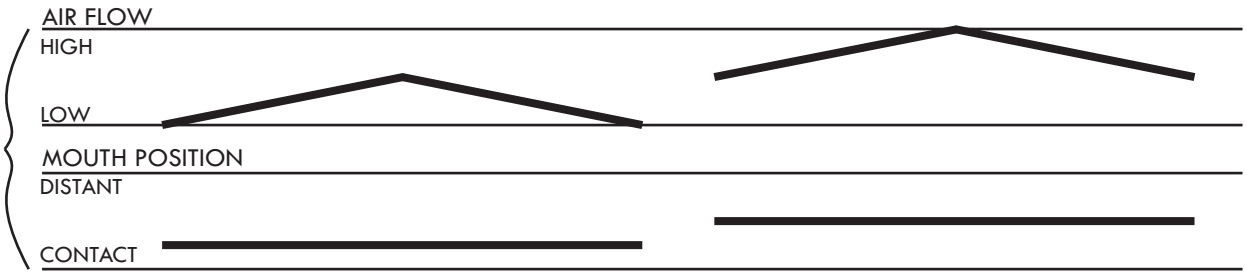

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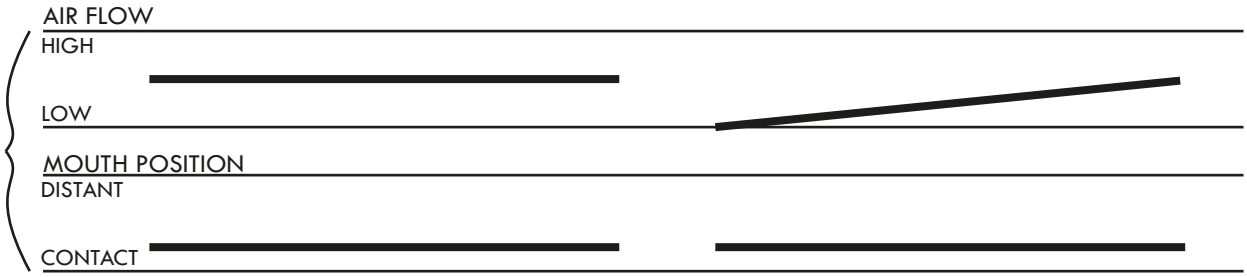
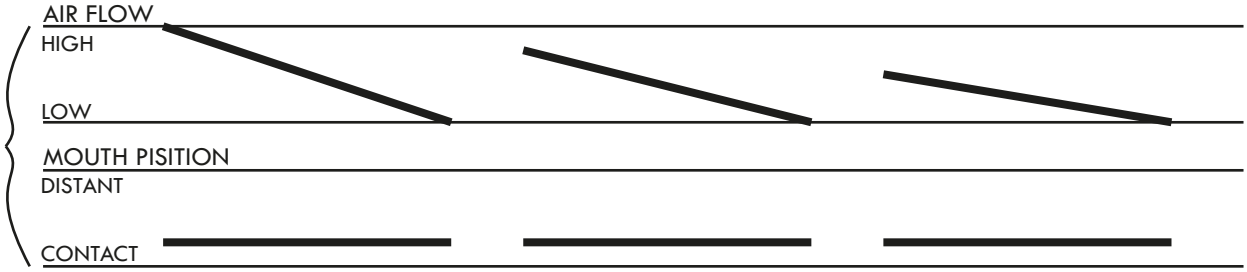
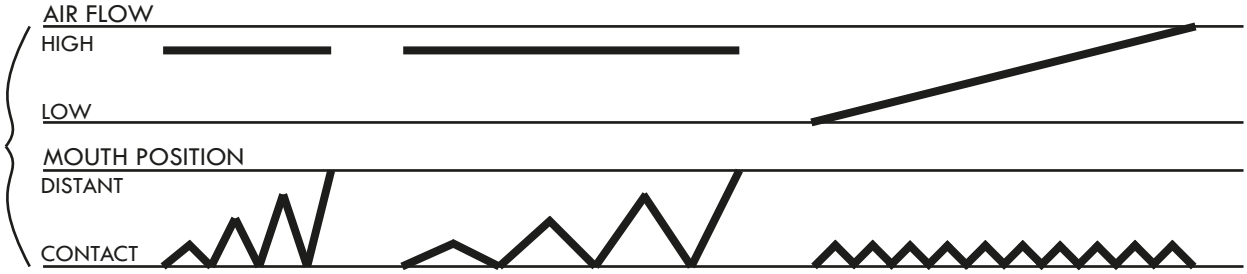

AIR FLOW
HIGH
LOW
MOUTH POSITION
DISTANT
CONTACT

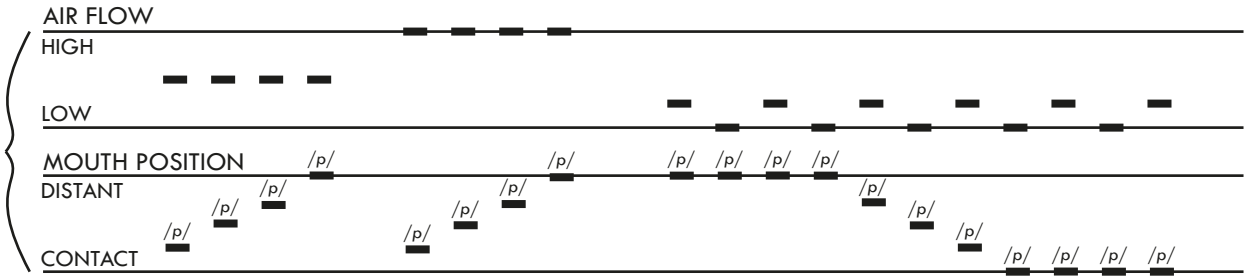
25


AIR FLOW
HIGH
LOW
MOUTH PISITION
DISTANT
CONTACT

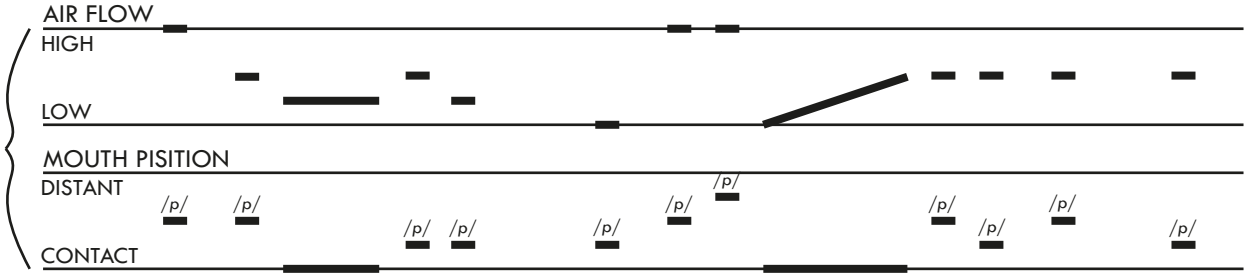
26


AIR FLOW
HIGH
LOW
MOUTH POSITION
DISTANT
CONTACT

27


AIR FLOW
HIGH
LOW
MOUTH POSITION
DISTANT
CONTACT
/p/

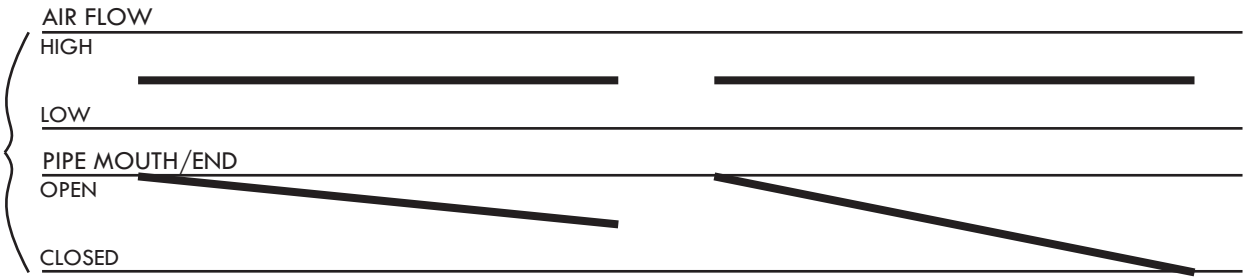
28


AIR FLOW
HIGH
LOW
MOUTH PISITION
DISTANT
CONTACT
/p/

STUDIES 29-35: COVERING THE PIPE MOUTH AND END

The following studies explore using your hand(s) to cover the pipe mouth and end. The "Pipe Mouth/End" guidelines indicate varying either the extent to which the pipe mouth OR end is covered: you may choose which action to explore. When covering the pipe mouth or end, "Open" indicates a normal playing position with the pipe mouth/end uncovered; "Closed" indicates using your hand (fingers and/or palm) to fully cover the pipe mouth/end. The hand used to cover the pipe mouth/end will need to rest in a position where it can easily slide across or be levered onto the pipe mouth/end. You are encouraged to experiment with different approaches to these techniques to explore the resulting changes in sound.

29



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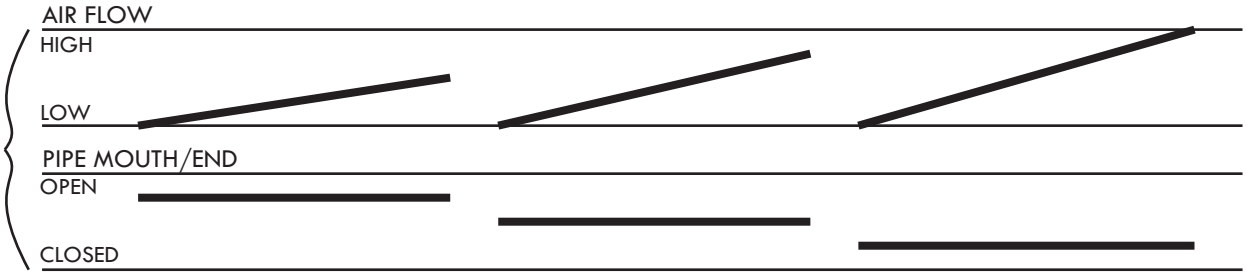

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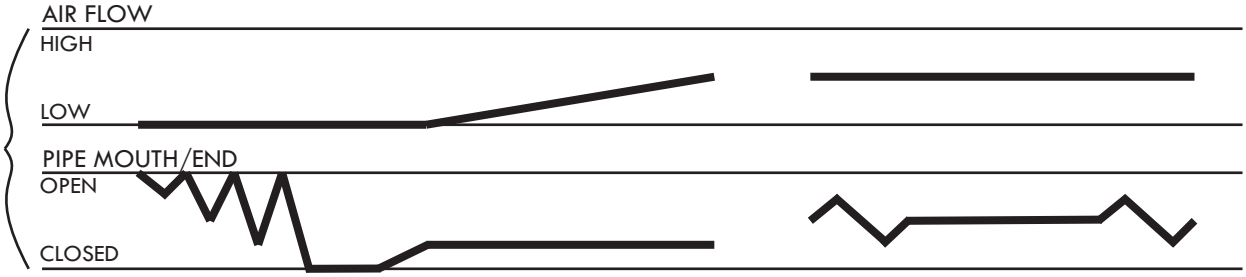

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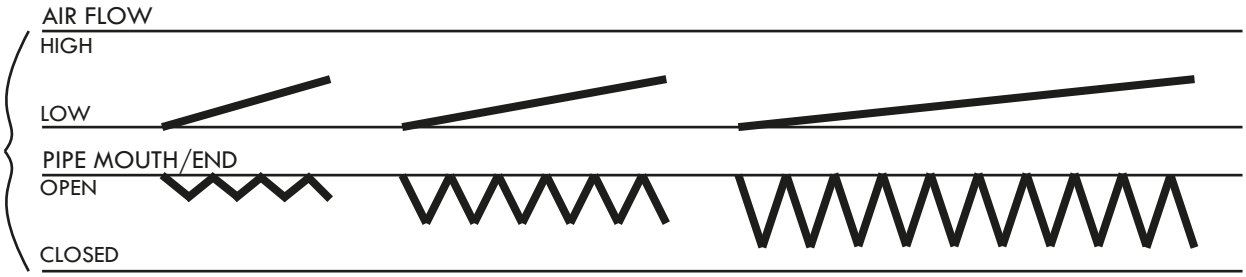
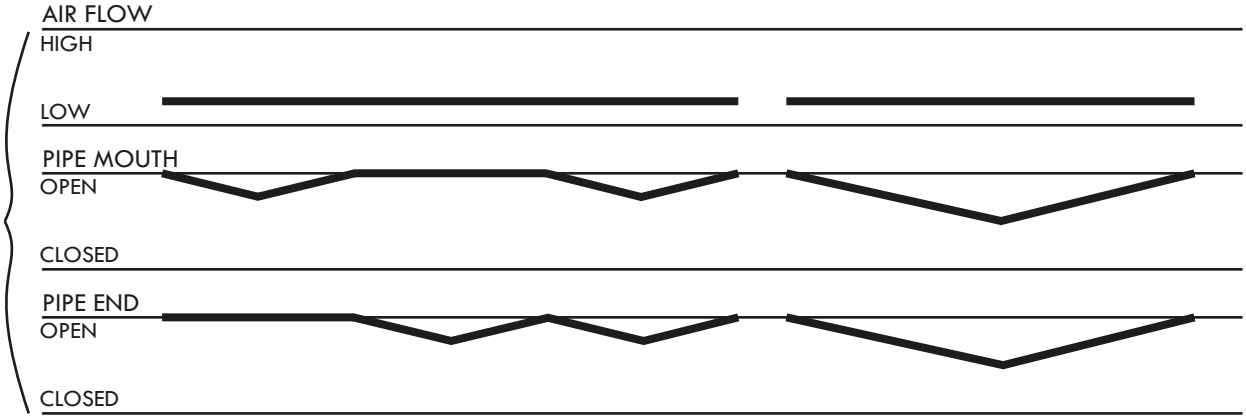
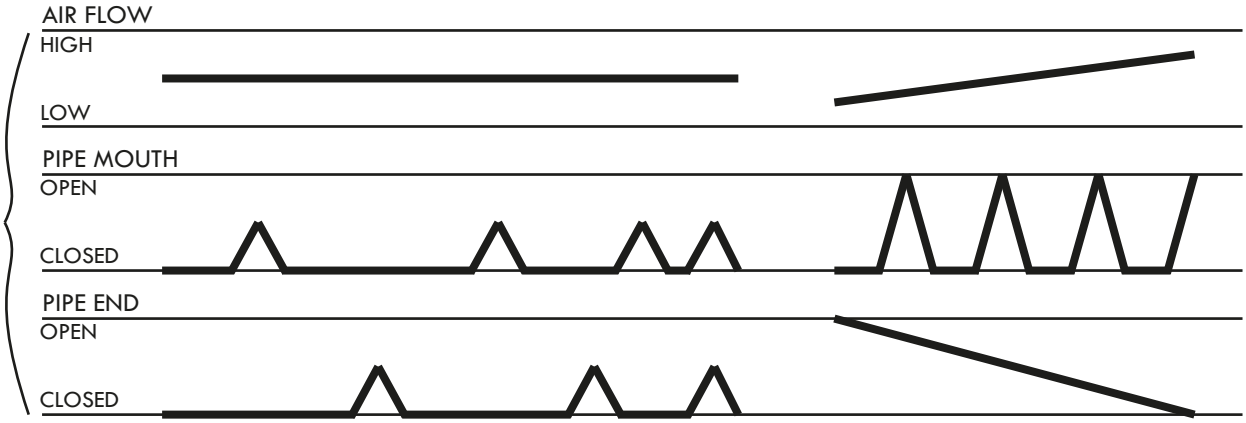

AIR FLOW
HIGH
LOW
PIPE MOUTH/END
OPEN
CLOSED

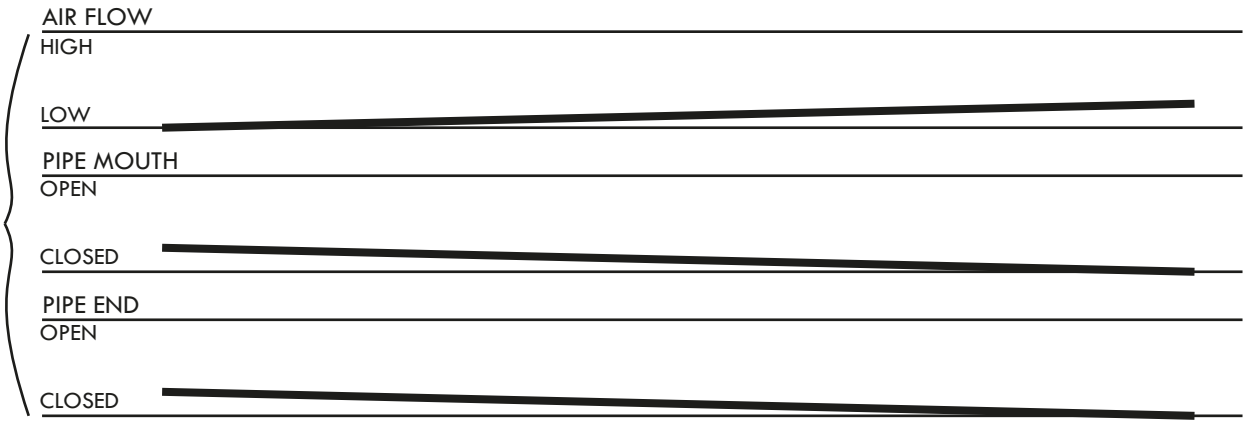
33


AIR FLOW
HIGH
LOW
PIPE MOUTH
OPEN
CLOSED
PIPE END
OPEN
CLOSED

34


AIR FLOW
HIGH
LOW
PIPE MOUTH
OPEN
CLOSED
PIPE END
OPEN
CLOSED

35


AIR FLOW
HIGH
LOW
PIPE MOUTH
OPEN
CLOSED
PIPE END
OPEN
CLOSED

STUDIES 36-43: VOCAL TECHNIQUES

The remaining studies explore singing while sounding your pipes. The "Vocal" guidelines indicate whether the note that you sing is higher or lower than the sound produced by your pipe: "Above" indicates singing a sound much higher than the sound of your pipe; "Below" indicates singing a sound much lower than the sound of your pipe; the grey, horizontal line midway between the guidelines indicates attempting to sing the same sound as produced by your pipe.

When approaching these studies, you will need to be mindful of the sound of your pipe, and you may also wish to practice singing sounds lower than, equal to and higher than the sound of your pipe before attempting each study. It is important to remember that you do not need to be a competent singer to perform these studies, as you are simply exploring the effects of attempting to vocalise sounds while sounding pipes. It is to be expected that some studies will be very challenging, particularly when performed using certain sizes and types of pipe. As with all the studies, your primary aim should be to try different approaches, challenge your abilities and enjoy the learning process.

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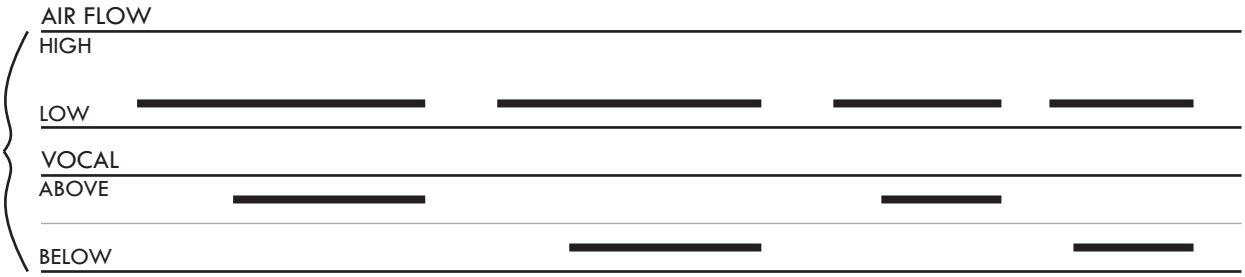

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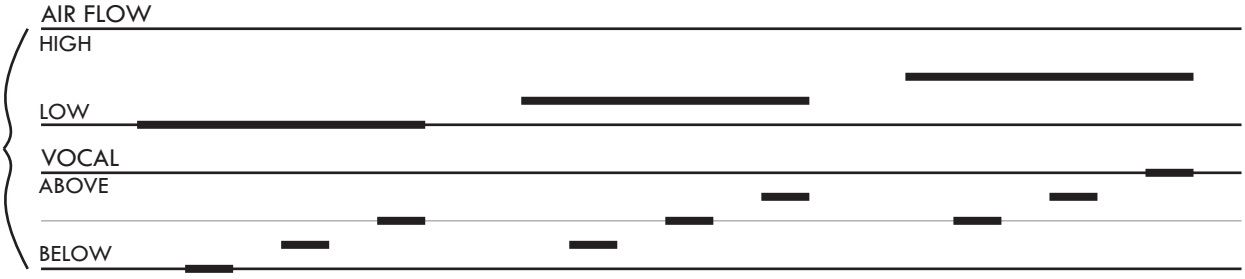

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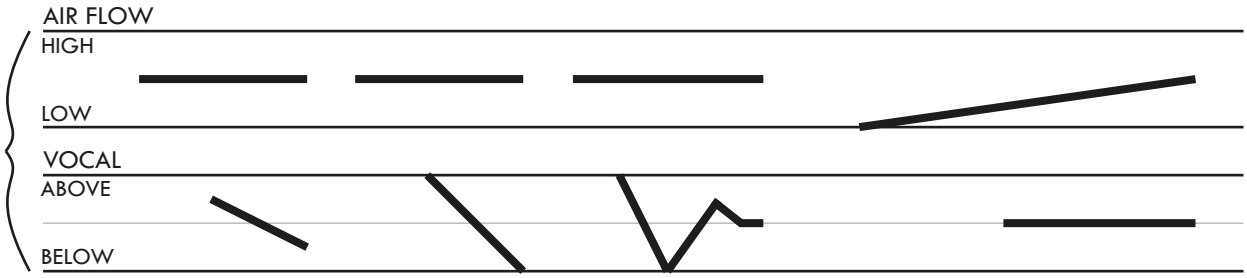
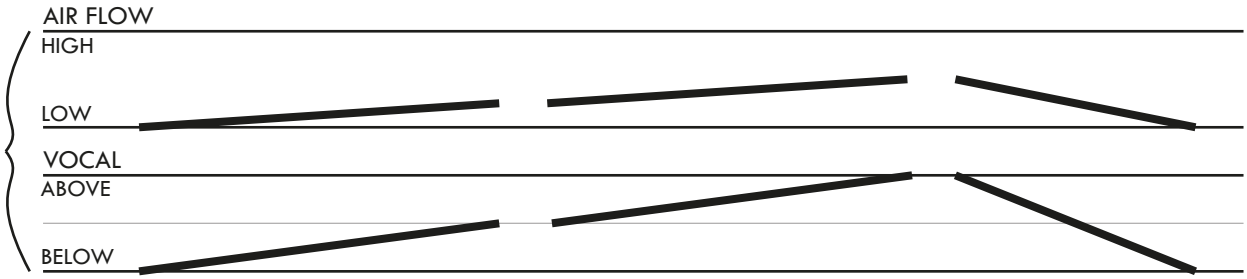

AIR FLOW
HIGH
LOW
VOCAL
ABOVE
BELOW

40


AIR FLOW
HIGH
LOW
VOCAL
ABOVE
BELOW

41


AIR FLOW
HIGH
LOW
VOCAL
ABOVE
BELOW

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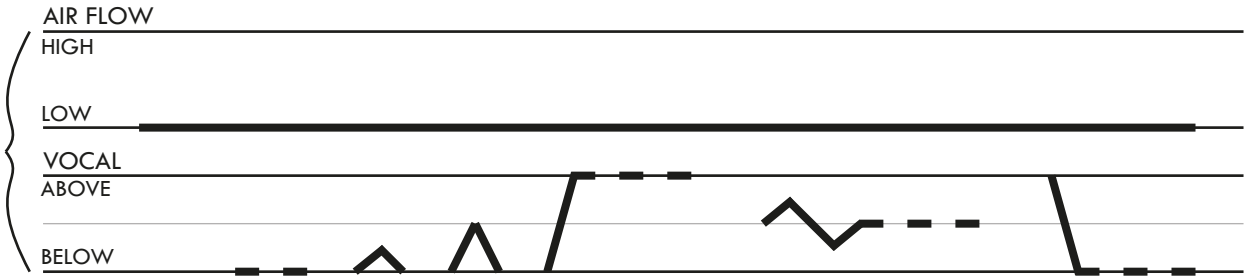
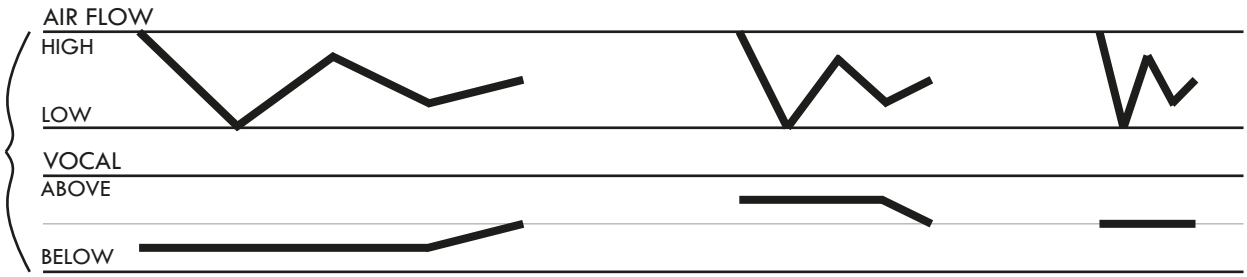

AIR FLOW
HIGH
LOW
VOCAL
ABOVE
BELOW

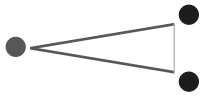
43


AIR FLOW
HIGH
LOW
VOCAL
ABOVE
BELOW

MAIN ACTIVITIES

The following 10 activities are for all participants to explore together. You may approach them in any order and spend as much time as you wish on each activity. You will see that each activity provides instructions for setting up, the main activity itself and an optional extension to the activity that will further challenge the group. The activities will often require participants to create a sound or sequence of sounds, which, at first, may be a daunting task. However, please remember that you are always free to create sounds that are as simple or complex as you wish: you may reuse and develop actions and sounds you explored through the warm-up tasks, and are encouraged to discuss and demonstrate ideas with other participants. During the activities, it is more important that you feel relaxed and able to discuss ideas than attempting to strictly follow instructions. The exact interpretation of each activity is less important than the group trying different approaches and enjoying the variety of scenarios.

ANCHOR



SETUP

Form groups of three. Players will require one pipe from their collection.

ACTIVITY

Within each group, select one player to be the "anchor". All anchors should then spread out within the space. Once in position, these players are fixed spatially and sonically: they must create and continuously repeat a sound or sequence of sounds and may not move within the space. Anchors are free to take short rests between repetitions.

The other two players in each group should stand at the edge of the space and decide on a rule to be applied to their anchor's sound. This rule should dictate the sound with which they will respond to their anchor and should result in a sound that changes with proximity to their anchor. For example, players may decide to imitate their anchor's sound at varying volume levels or sound durations dictated by their distance to the anchor. Once players have agreed on their rule, they must stand close to their anchor and begin to respond. As they move to different distances from their anchor, players must adjust their response according to their rule.

Repeat the activity to experiment with different rules and until all players have had the opportunity to be an anchor.

EXTENSION

Non-anchor players may choose to switch to a different anchor during the activity. When deciding on their rule, non-anchor players should also agree on a hand signal they may use to indicate an immediate switch to a new anchor. As soon as the switch has occurred, these players must apply their rule to the new anchor and begin responding at different distances. At any time, it is acceptable for more than one pair of non-anchor players to be responding to the same anchor.

In addition, anchors may now choose when they are active or inactive. Anchors are active when they are holding their pipe: in this state, players responding to them should continue with the activity as normal. Anchors are inactive when they have placed their pipe on the floor: in this state, players currently responding to them should remain still and silent. Alternatively, anchors may indicate when they are active or inactive by standing or sitting.

ATTENTION

SETUP

Position four pieces of paper on the floor within the space to act as markers. Ensure all pieces of paper are spaced apart and, if necessary, use tape to secure them to the floor. Players should select one pipe from their collection and wait at the edge of the space.

ACTIVITY

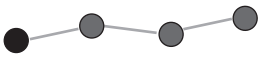
In silence, players should think about a sound or sequence of sounds they can create. Players should attempt to become familiar with the actions required to create their sound without sounding their pipe.

Once players feel familiar with these actions, they may begin to move slowly into the performance space. Only when a player begins to approach one of the markers should they start creating their sound. With each step towards a marker, players should gradually increase the volume or rate of repetition of their sound. Players are free to change course for another marker at any time but must adjust their sound accordingly based on their proximity to the new marker. During the activity, players are free to move away from all markers, rest and observe the other players.

EXTENSION

Before the activity has begun, choose two or three players to be "operators". Operators will not require a pipe for the activity. During the activity, as players are moving within the space, operators may switch markers ON using arm signals. When the operators are stood away from the markers, players should move slowly within the space in silence, regardless of their proximity to the markers. When an operator stands next to a marker and lifts one arm in the air, all players must immediately change course for this marker and slowly move towards it, gradually increasing the volume or rate of repetition of their sound. If the operators switch ON multiple markers simultaneously, players must choose which marker they will move towards. Repeat the activity to give different players the opportunity to be an operator.

BRANCH



SETUP

Players should select one pipe from their collection and divide into two groups. Each group should form a queue on opposing sides of the space, leaving as much space between the two queues as possible.

ACTIVITY

The activity begins when the players at the front of each queue move into the space, choose a position and begin making a sound. These starting players may now not move and must continuously repeat their sound. The starting players must be spaced apart from each other. Once the starting players have began repeating their sound, the next player in each queue may choose when to enter the space. Once ready, they must select and move towards one of the starting players and, when positioned next to this player, begin repeating the same sound. Players should attempt to accurately imitate the sounds and actions of the player they have joined.

The process then repeats with players at the front of the queues deciding when to enter the space and to which formation and sound they would like to join. When joining a formation, players must position themselves close to the player who recently joined: this will gradually form a branch of connected players that moves away from each starting player.

EXTENSION

At any point during the activity, the starting player may stop repeating their sound and rest in silence. Once the connected players have all noticed this change and become silent, the role of "starting player" shifts to the player at the opposite end of the branch. This player may then move to a new position in the space and start repeating a new sound. The previously connected players may then choose whether to join the new starting player or the other formation.

COLLECT

SETUP

Players should select one pipe from their collection and stand at the edge of the space.

ACTIVITY

Individually, players should create a short sequence of sounds. Once familiar with their sounds, players should form pairs and space themselves apart from other pairs.

Player should then demonstrate their sequence of sounds until their partner feels that they can accurately recreate it. Players may demonstrate their sounds multiple times and discuss the required actions. When players feel able to perform their sounds and their partner's sounds as one sequence, they should form a pair with a new player. This process then repeats, with players demonstrating their extended sequence of sounds to their new partner.

Repeat this process until all players have formed three different pairs. At this stage, all players will have learnt a sequence of sounds containing their own sound and the sounds of seven other players.

Finally, form a pair with a new player and, in turn, try to perform your full sequence of 8 sounds to each other.

EXTENSION

Players must start with a much longer sequence of sounds. Instead of gradually accumulating all sounds within the room, players must identify a short fragment of their partner's sequence and incorporate it somewhere within their own. The location of this fragment within each player's sequence of sounds must remain the same as they continue with the activity.

As in the main activity, once all players have formed three different pairs, they should form one last pair with a new player and, in turn, try to perform their full sequence of sounds to each other.

INFLATE

SETUP

Players should select one pipe from their collection, form a circle in the middle of the space and face outward.

ACTIVITY

Players should use their pipe to create a quiet sound that lasts for a few seconds. Once all players are satisfied with their sound, the activity may continue.

First, all players must perform their sound and wait for a prolonged silence. Once they have experienced this silence, players should take one step forward (away from the centre of the space). Players should then perform a slightly elongated version of their sound, where every feature within the sound has been stretched by a small amount, wait for silence and take one step forward. Players should repeat this process until they have reached the boundary of the space. At which point, players should perform one last version of their sound, wait for silence and turn to face the centre of the space.

Once all players are facing the centre, the process should be performed in reverse, where players should gradually shorten their sound with each step and repetition. The activity ends once all players are stood in their starting positions facing the centre.

EXTENSION

Players must start with a sequence of short sounds separated by silence. With each step away from the centre, players must elongate the silences within their sequence of sounds, while keeping the sounds themselves equally short. For each player, judging when they have experienced a prolonged silence may become more ambiguous, and different interpretations of this rule may be explored.

MORPH

SETUP

Spread out within the space. Players will require one pipe from their collection.

ACTIVITY

Individually, players should spend a few minutes creating two distinct sounds. Once satisfied with their sounds, players should consider how they may gradually transition from one of their sounds to the other. This may involve making small adjustments to their breathing or hand positions while creating the sound, or repeating the sound continually, making small adjustments with each repetition. Players have control over how they approach this task, and their decision-making may need to adapt to the type of sounds they have created.

Once all players feel able to transition between their sounds, they should form a line along one side of the space, facing the opposite side. Players should now practice slowly moving across the space, where each side represents one of their two distinct sounds. With each step away from their starting position, players should gradually transition from one sound to the other. The rate at which adjustments will need to be made, or the size of each adjustment, will be dictated by how players choose to move across the space. Players should explore this until they feel able to move in both directions, at different walking speeds and starting from different positions within the space.

Starting on the same side of the space, groups of two or three players should demonstrate to the other groups how they transition between their sounds as they simultaneously move across the space. While each player may decide the speed at which they move, the group's demonstration is finished when all players return to their starting positions and are silent.

EXTENSION

Once each group has finished their demonstration, experiment with different group sizes and multiple groups moving simultaneously. Also experiment with groups/all players attempting to move at the same speed across the space, using a designated player as a guide for all others.

MOTH

SETUP

Spread out within the space. Players will require one pipe from their collection. The light level within the space should be low and a lamp with an on/off switch must be positioned at the centre. The activity will begin with the lamp switched off.

ACTIVITY

Without blowing air into their pipe, players should create a sequence of hand movements (using their fingers and/or palms) that will explore different ways of changing the sound of their pipe. In silence, players should practice their sequence of hand movements until it is familiar.

Once players are familiar with their sequence, they may slowly walk within the space. When the lamp is switched off, players should repeatedly perform their sequence of hand movements while blowing air at their pipe from a close distance (approximately one hands-width). At any point during the activity, players may switch the lamp on and off. When the lamp is switched on, players should continue to repeat their sequence, but must change to standard blowing (lips in contact with the pipe).

EXTENSION

During the activity, when the lamp is switch off, the distance between players' lips and their pipe should be dictated by their proximity to the lamp: the closer a player is to the lamp, the closer their lips are to their pipe. Players' lips must still not contact their pipe while the lamp is switched off.

When the lamp is switched on, the volume of the sound created by each player should be dictated by their proximity to the lamp: the closer a player is to the lamp, the louder their sound should be.

ORDER

SETUP

Spread out within the space. Players will require their collection of pipes.

ACTIVITY

Using any number of their pipes, each player should create a sequence of sounds, as simple or complex as they wish. Players should practice their sequence until they are able to accurately repeat it. Once all players are familiar with their sequence, they should form groups of 3, 4 or 5. In turn, each player should demonstrate their sequence to their group. Each group should then decide how their sequences should be ranked from most simple (1) to most complex (3, 4 or 5, depending on group size), where each player receives a different number.

Once all sequences have been ranked, each group should spread out in a line across the space in number order. All groups must agree on which opposing sides of the space represent "most simple" and "most complex" and arrange their players accordingly across the space. Players should face the side representing "most simple" and choose a player close to them with a lower rank to be their "link player". Players who received a number 1 do not require a link player, as these are "starting players".

Once in formation and link players have been chosen, starting players may alternate between playing their sequence of sounds and resting in silence as they wish. All other players may only perform their sequence immediately after their link player has finished a repetition of their sequence. While players must follow this rule, they are not required to perform their sequence every time their link player finishes their sequence.

EXTENSION

All players should return to their groups and swap sequences with each other. Each player will need to help another player to learn and become familiar with their sequence by demonstrating and, if necessary, explaining the actions required. Once familiar with their new sequence, players should return to formation across the space, using their new rankings to position themselves, choose link players and prepare to perform. The new starting players may then begin the exercise.
This process may be repeated until all players have tried each sequence in their group.

STORM

SETUP

As different regions on the space will dictate players' actions, starting positions should be chosen once all players have understood the activity below. Players will require one pipe from their collection.

ACTIVITY

In the centre of the space, players may stand or sit together to form the "central zone". This is a calm area that it markedly different from the activity that surrounds it. Here, players should rest and observe the actions of players outside the central zone.

Those who choose to stand/sit outside the central zone should create a sound or sequence of sounds and continuously repeat it. Simultaneously, these players should listen to and watch other players in this region. At any point, these players may switch from repeating their sound to repeating another player's sound and are free to do this multiple times.

During the activity, players may move away from the central region to a distance which they feel is significantly detached from the main group. At this distance, they may return to a state of rest, like those within the central region, and observe the actions of those closer to the centre.

Players are free to move between regions of the space and explore the different modes of playing and observing.

EXTENSION

Players surrounding the central zone must base the volume of their sounds on their proximity to the central zone: the closer a player is to the central zone, the louder their sound should be.

TOGETHER

SETUP

Form groups of three or four players. Players will require their collection of pipes.

ACTIVITY

Once standing or sitting in groups, choose who will be the starting player. The starting player will then create a sound or sequence of sounds while the rest of the group listens and watches carefully. Once finished, the starting player should rest, think about their sound and prepare to repeat it. When the starting player can see that the group is ready, they should attempt to accurately repeat their sound. Simultaneously, the group should attempt to create the same sound, aligning their actions with the starting player. Once the first repetition is complete, the group should rest, think about the actions and sounds they have just performed and prepare to repeat them. The starting player should continue to repeat this process, alternating between performing their sound and resting, until all actions within the group feel closely aligned.

Once the group is satisfied with their ability to perform the sound together, the activity may be repeated. Ensure all players receive the opportunity to be the starting player. When attempting to align their actions and sounds with the starting player, players are free to experiment with different pipes.

EXTENSION

Starting players may experiment with different varieties and complexities of sounds, including longer sequences of sounds, to provide new challenges for the group as they become more familiar with the activity.

INSTALLATIONS

The following section provides instructions for building an interactive sound installation using four large bourdon organ pipes (any lengths between 4–8'). While the instructions have been designed for this specific arrangement, you may explore alternative setups for 1, 2 or 3 bourdon pipes by adjusting equipment and the assembly process accordingly. Please note that while the arrangement described in this section allows for up to 13 participants to interact with the installation simultaneously, alternative setups for fewer pipes will reduce this maximum number of participants.

Equipment

4	Bourdon organ pipes (any lengths between 4–8' with stoppers removed)
4	Bourdon organ pipe stoppers (select sizes that almost fit tightly inside the 4 bourdon pipes)
8+	Principal rank organ pipes (10" or shorter)
20+	Percussion beaters (select a variety)
10+	Sheets of A4 paper
4	Wooden blocks (approx. 1x5x5")
1	Inline duct fan (4"; with wired-in mains plug)*
3	Ducting Y pieces (4")
4	Ducting adapters (4" to 2")
1	Ducting hose (4"; length ~10m)
4	Wooden broom handles (~50")
4	Dust cloths
2	Large tables (~6' long)
2	Small tables (~4' long)
1	Roll of duct tape
2+	Rolls of electrical tape
30+	Cable ties
4	Dynamic microphones (SM57 or equivalent; with clips)
4	Microphone stands
6	XLR cables
1	Mixing desk (minimum 4 channels)
2	Loudspeakers (good bass response recommended)
4	Power extension leads (ensure 1 is switched)

*While you may substitute the fan and ducting pieces for 5" or 6" models if these are easier to attain, the air flow rate of the fan should be at least 500m3/hr.

Assembly

Arrange the four pipes on the two large tables following the spatialisation diagram provided (see Spatialisation), placing the wooden blocks in between the ends of each pipe and the tables. Ensure there is enough space in between the large tables for participants to access positions 11 and 12.

Place the fan and ducting pieces on the small table. Connect the fan's outtake to the four organ pipes using ducting Y pieces, sections of the ducting hose and cable ties. Connect a section of the ducting hose (approximately 3m in length) to the fan's intake. Where necessary, use duct tape or additional cable ties to ensure air-tight seals between all pieces. In addition, you may need to position something underneath the ducting pieces either side of the fan to reduce strain on the joints (see photograph below). Plug the fan into the switched power extension lead, positioning the lead so that a participant in position 1 may easily operate the switch.

In order to achieve an air-tight seal between the sections of ducting hose and each pipe, you will require ducting adapters to allow the 4" hose to connect to each pipe toe. Alternatively, you may remove the air intake nozzle on each pipe, and insert ducting adapters directly into each pipe—remember to use electrical tape and duct tape where necessary to achieve air-tight seals (see photograph on next page).

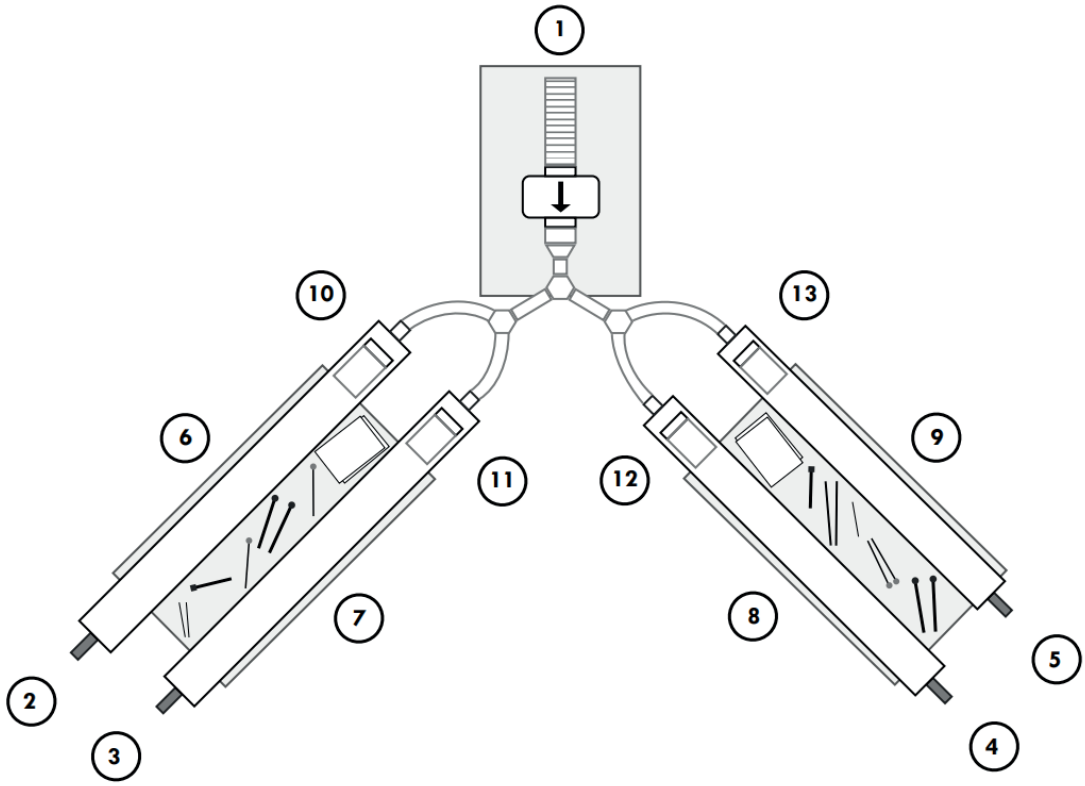
Within the air intake nozzle on some bourdon organ pipes, there may be a cylindrical, wooden block protruding from the inside wall. It is essential that this is removed and the exposed hole is sealed using duct tape, as this will allow maximum air flow through the pipe.

Scatter the percussion beaters across the large tables between the bourdon organ pipes (see Spatialisation). Place the principal rank pipes so that they can be easily reached by participants at positions 10-13.

Pull the leather cover over the end of each stopper to reveal the wooden body. Wrap several layers of electrical tape around the outside (narrow edge) of the wood and replace the leather cover over the wood. Repeat this process until the stopper fits tightly enough to block the flow of air through the pipe and produce a pitched sound, while remaining loose enough to slide within the pipe with minimal force. Alternatively, instead of using electrical tape to increase the size of the stopper, you may also tightly wrap a dust cloth over the stopper and fasten it around the broom handle (see photographs below). Once this has been achieved, securely attach the wooden handle of the stopper to the broom handle using a generous amount of duct tape—ensure it will not detach while inside the pipe.

Spatialisation

The diagram below shows the spatialisation of the equipment and the 13 positions from which participants may interract with the device.



Setup of Electronic Equipment

Position the microphones approximately 6” above each pipe mouth—this will allow participants at positions 10-13 to closely interact with the pipe mouths without making contact with the microphones. Position the mixing desk either side of the small table, so that the participant at position 1 may easily operate the controls. Position the loudspeakers either side of the performance space, leaving a generous amount of space around the installation to allow pariticipants to easily switch positions and take a step back from the activity to observe. Ensure each microphone is connected to the mixing desk inputs and the main “left” and “right” outputs of the mixing desk are connected to the respective loudspeakers.

Interacting with the Installation

While up to 13 participants may interact with the installation simultaneously, a larger group may explore the installation by participants alternating between passive and interactive roles. The 13 positions marked on the spatialisation diagram indicate the positions from which participants may interact with the device. Each position represents a different role within the collective investigation of the device:

Position 1: Fan Operator

You may switch the fan ON and Off.

Positions 2-5: Stopper Operators

You may slide the stopper inside the pipe closest to you using the broom handle.

Positions 6-9: Percussionists

You may use a variety of percussion beaters to strike and rub the outside of the pipe closest to you.

Positions 10-13: Pipe Mouth Manipulators

You may use your hands and pieces of paper to partially and fully cover the pipe mouth closest to you.

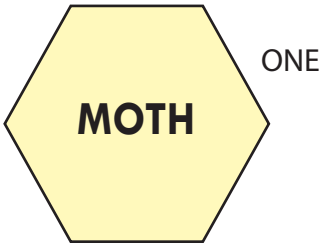
You may hold pieces of paper taught across the pipe mouth in positions that cause them to vibrate and produce their own sounds.

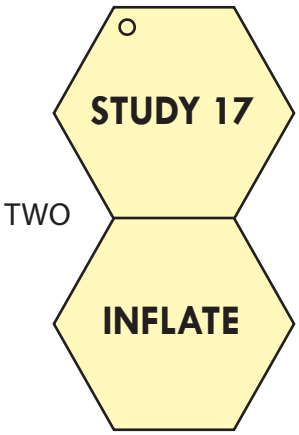
You may position small principal rank organ pipes across the pipe mouth to produce high, whistling sounds.

ii. ACTIVITY MAPS

The final section of this book provides a framework that a group may use to structure their activities. While the activites described in this book can all be explored in isolation, you may wish to create an action plan for a music-making session that guides participants through a sequence of activites and choreographs changes between activites.

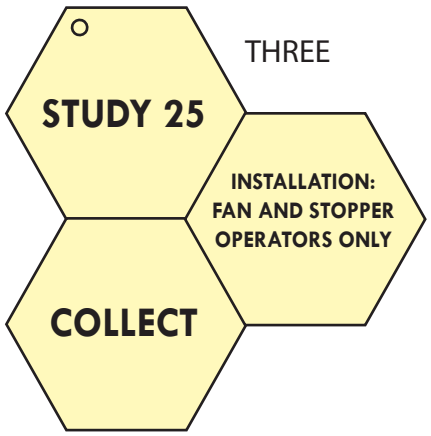
This framework consists of 7 different "activity maps", each of which represents a different way a group may explore activities. The most simple activity map, "One", represents all participants exploring the same activity throughout. To indicate this on the activity map, all players would agree on a singular activity from the book and mark it on the hexagonal tile (see right for an example). The activity could be a warm-up task, study, main activity or certain number or combination of participants interacting with an installation.





The second activity map, "Two", requires all participants to agree on the same two activities and arrange them in the same tiles (see left for an example). This map represents all participants alternating between the same two activities. The group must decide on a visual or aural signal that will cue the group to immediately transistion from one activity to the other. This could be a single strike of a bass drum or wooden block, a hand singal from a disignated particpant, or temporarily switching a light on and off: most importantly, the cue should be clear and understood by all particiapnts. When using "Two", the group must start with the activity in the tile with a small circle in the corner. For all activity maps, the group must discuss the length of time spent on each tile and the total number of changes between the activities.

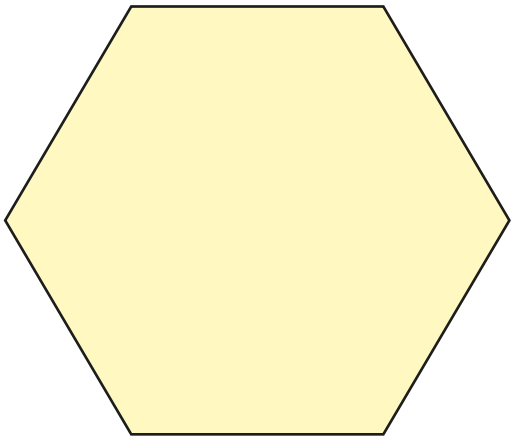
The third activity map, "Three", introduces the possibility for participants to explore different activities simultaneously. The group must first agree on the same three activities and arrange them in the same tiles (see right for an example). While the group must begin with the starting tile (indicated by the small circle), they may choose whether to transistion to either of the other tiles when cued. The important rule to remember when cued is as follows: you must transistion to a tile different from the tile from which you previously transistioned, unless your previous tile is your only option (this will become applicable in activity maps "Four" and "Linear".



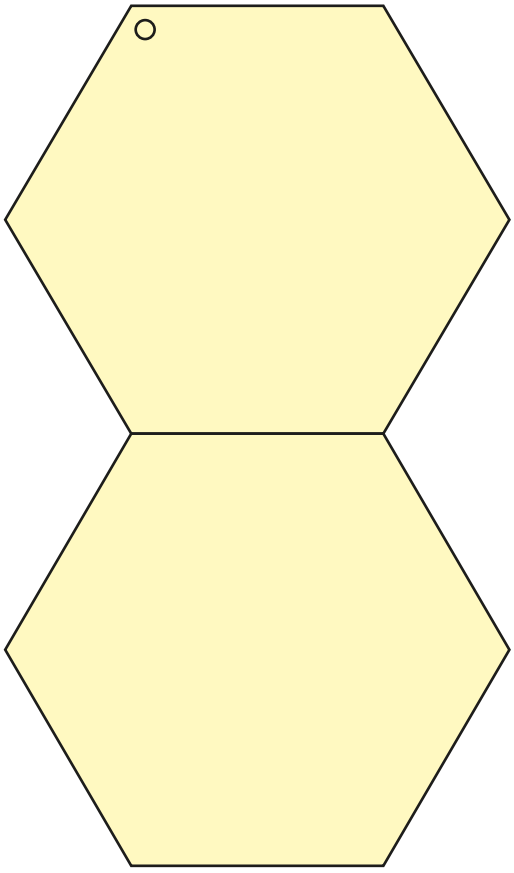
Once you have explored the first three activity maps and are familiar with how they can be used to structure a series of activities, you are encouraged to explore activity maps "Four", "Linear", "Ring" and "Grid", following the same rules outlined above. As you experiment with each activity map, you will discover new ways to sequence the group's actions and explore different combinations of activites and their resulting sounds.

All 7 activity maps are provided across the following pages. These may be photocopied and used as templates by the group. Laminating these copies and using dry erase pens to note activites will allow for quick and easy changes to the activity maps.

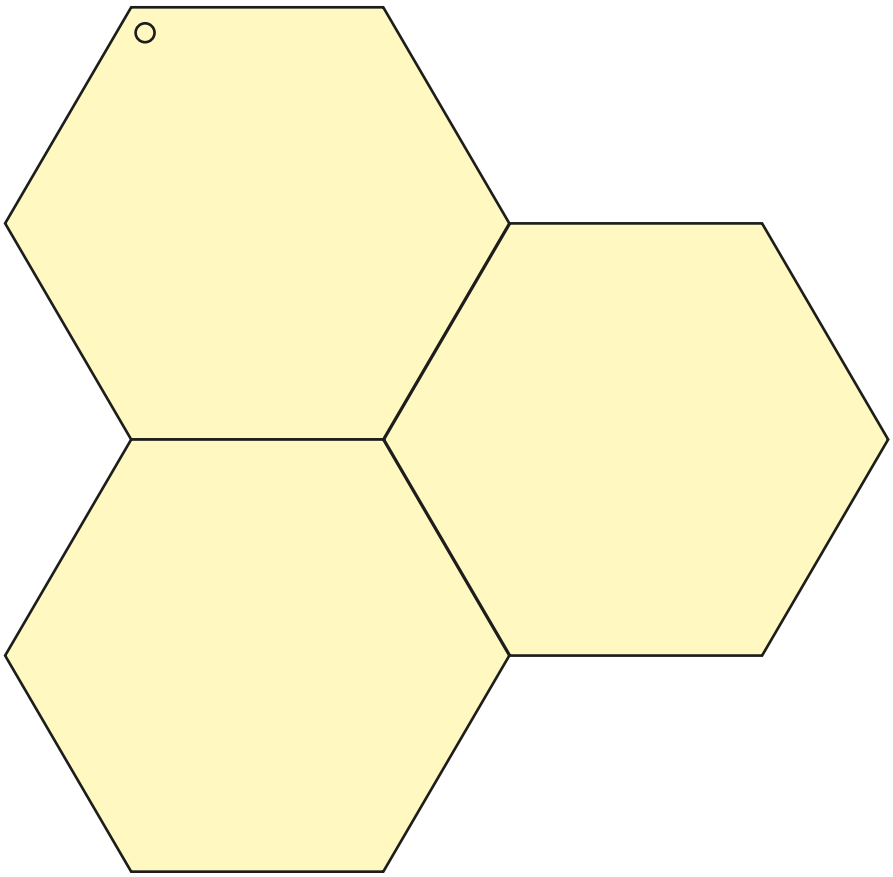
ONE



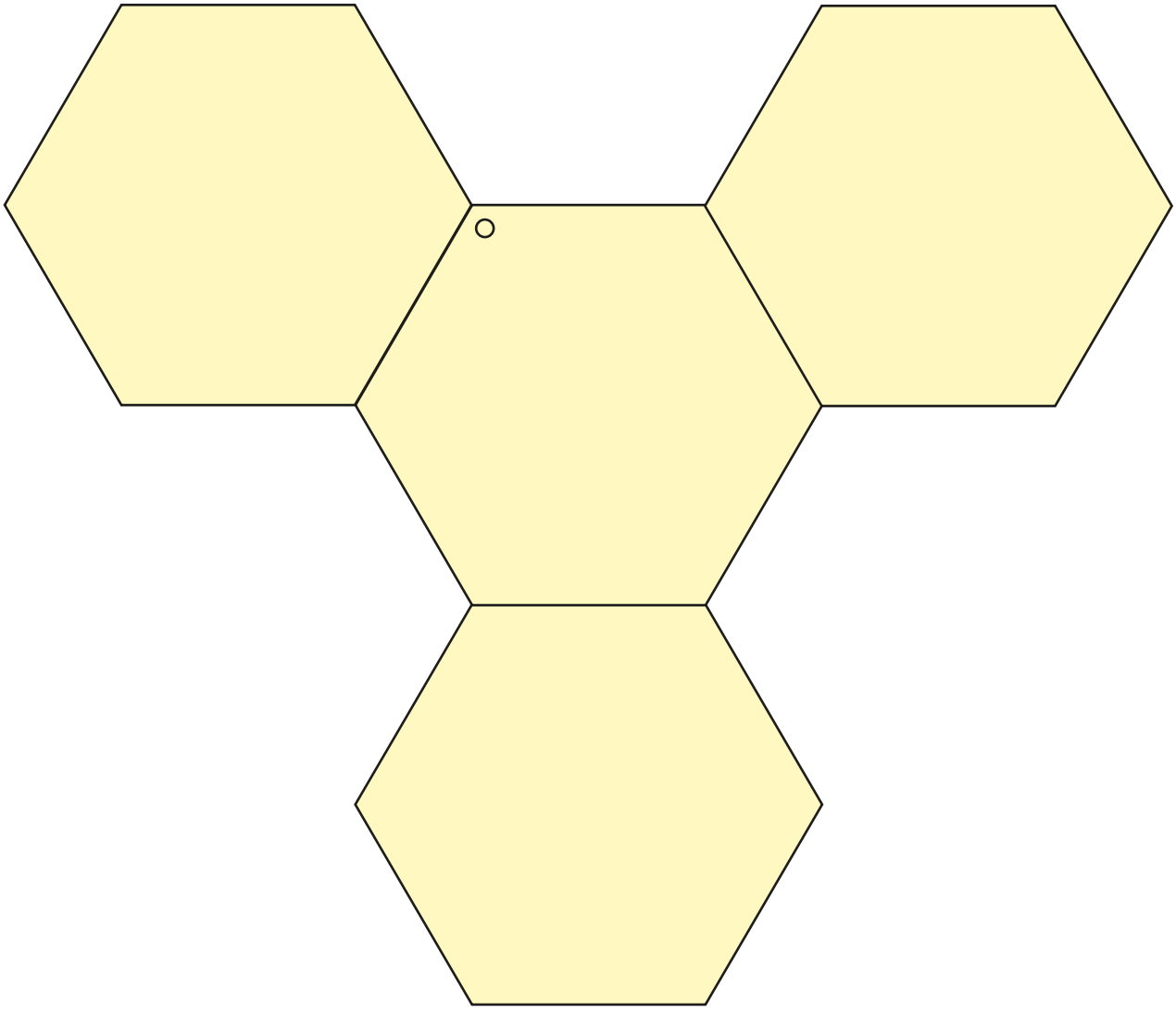
TWO



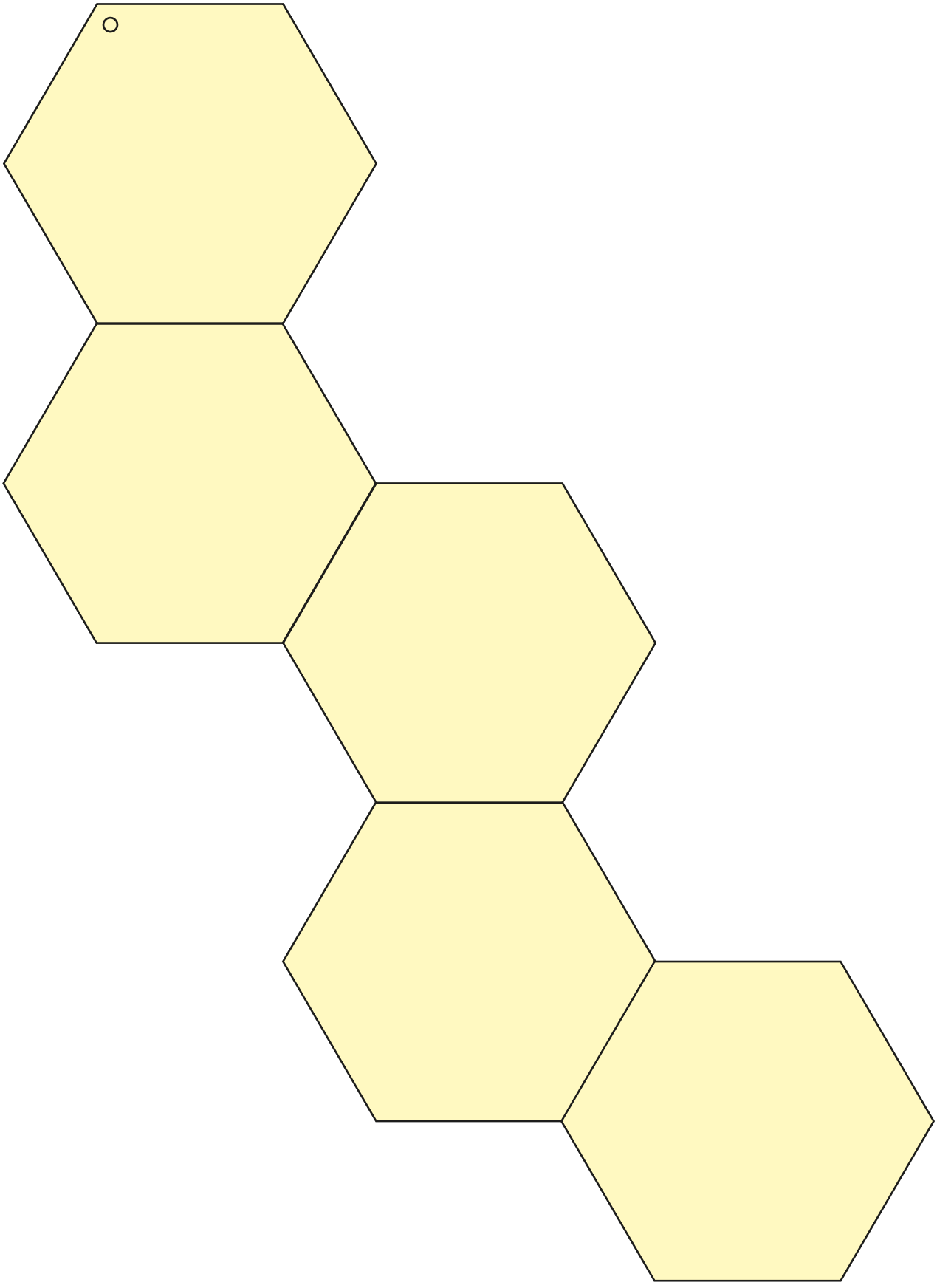
THREE



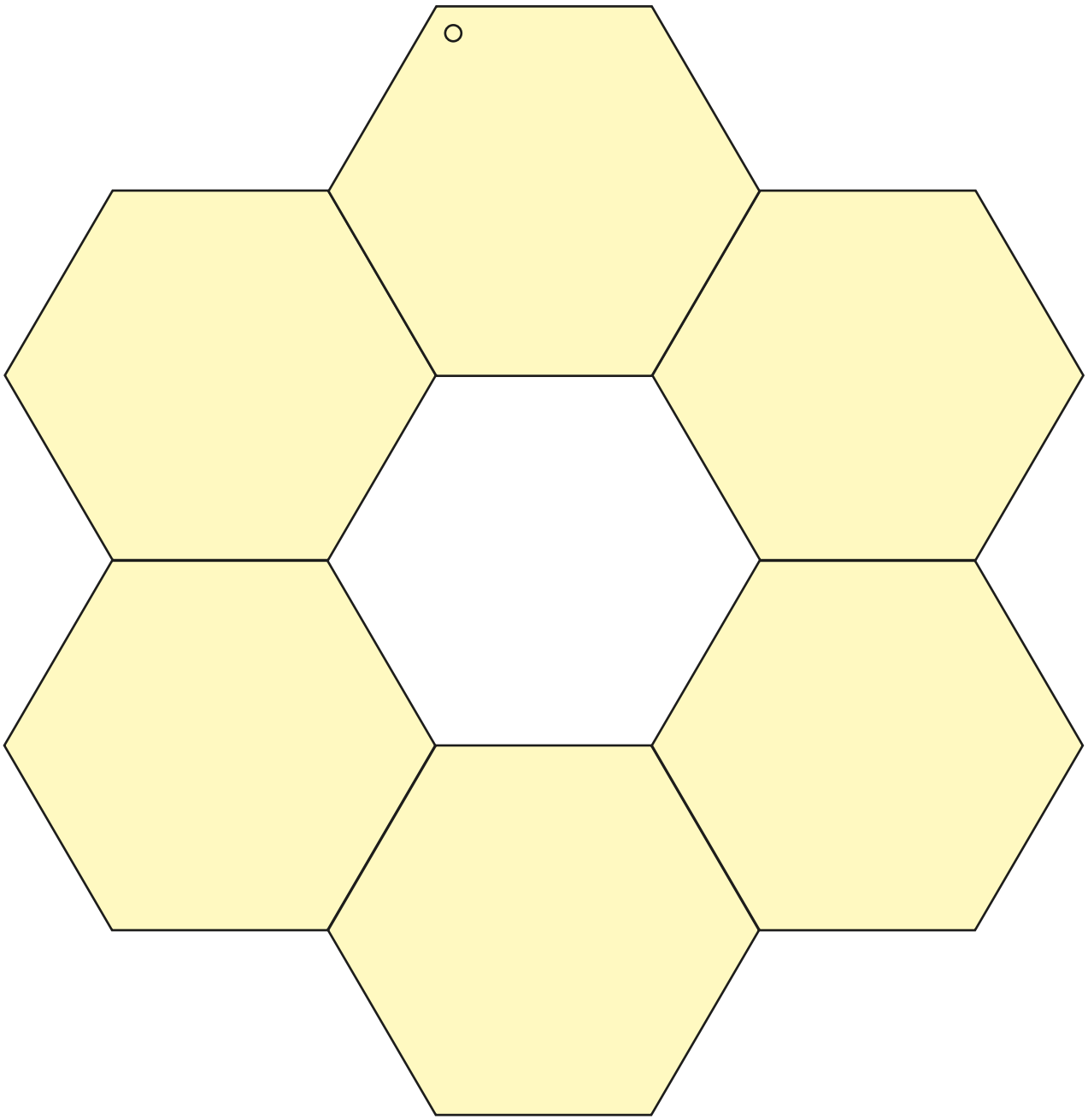
FOUR



LINEAR



RING



GRID