Circular Breathing

‘a new approach’

By Stephen Moschner

Contents

Introduction 2
What is Circular Breathing? 3
Where is Circular Breathing used? 3
Stage 1 - Breathing System and Fundamentals 4
2 systems of breathing 4
Blowing a Raspberry 5
Breathing OUT 5
Breathing IN 6
Breathing IN and OUT 6
Stage 2 – Human Bagpipes 7
Inflating the Bag 7
Refilling the Lungs 7
Circular Breathing System 8
Stage 3 – In Performance 8
Reed or Mouth Piece alone 8
Smoothing out the Bumps 8
Moving onto your instrument 9
Breathing OUT is the Pressure Valve 9
Circular Breathing Symbol 9
Playing Examples 10

Copyright © SMREEDS, 2009

Introduction

The technique of circular breathing, especially for woodwind and brass instrumentalists, has been seen as an 'advanced technique', something that only professional players or those people with a strange talent have been able to implement into their performance practise.

The following book is a guide into the journey of circular breathing and will hopefully dispel these myths and give performers access to a new 'tool' in their playing, something that is not hard to master and can be utilised across the spectrum from student, semi professional to professional player.

What is Circular Breathing?

Circular Breathing (also known as recurrent breathing) is a human skill. A skill possessed by humans across cultural and geographic boundaries, often demonstrated inherently by new born children.

Describing the skill in the simplest form, it is the ability to consistently blowing air from the oral cavity whilst taking in fresh air through the nose, with no break in the outward air flow. This is achieved through a combination of the closing of the soft palate at the rear of the throat whilst using muscles in the mouth to expel air out of the oral cavity. During which time fresh oxygenated air is taken into the lungs via the nasal passage in a quick "snorting" fashion, after which the soft palate is relaxed and air form the lungs is then expelled normally through the oral cavity.

This cycle of air flow from the oral cavity and replenishment via the nasal airways is repeated to create a continuous stream of air from the mouth. This continues cycle is the basis of the wording "Circular" breathing.

Where is Circular Breathing used?

This skill is found within various traditional cultures around the world and used for various endeavours.

The art of Venetian glass blowing, developed during the renaissance period, requires Circular Breathing to create and maintain a rounded or vase shape with an orb of molten glass at the end of a hollow rod. The hollow rod with glass slurry is turned within a fire pit or oven and shaped with the use of moulds, all the time being consistently inflated, via Circular Breathing, to form the shape and prevent the collapse of the molten object.

Circular Breathing is also employed with the use of so called "new-age" meditation techniques, with reports of euphoria and the attainment of peace being noted during long periods of meditation and Circular Breathing. Though it is suspected that the levels of oxygen deprivation often associated with the technique may create un due bias or be the basis of these reported effects.

The two above illustrations are good examples of the use of this Circular Breathing but it is most often associated alongside its use in musical performance.

Ceremonial Asian reed blown musical instruments (often double reeds) implement the technique of Circular Breathing for a consistent sound. Recently re-discovered Irish Brass Horns from the roman era were believed to also have been performed using a similar technique.

Copyright © SMREEDS, 2009

From the mid to late 19th century performance techniques on woodwind instruments have called for the use of Circular Breathing. Reports in letters of this technique come from the time of Wagner and Rossini, where it was seen to be a super human achievement.

An example is the virtuosic lines of Italian oboist and composer Antonio Pascullli (1842-1924), described as the 'Paganini of the Oboe', calls for the use of Circular Breathing in various solo works. One of these “Le Api” (The Bee) being a study in advanced technical fluency. A work of more than 4 minutes in length with only one rest marked in the middle of the score for a breath.

A more contemporary example for the implementation of Circular Breathing is a work by arguably the most influential wind performer of the 20th century, Heinz Holliger. Another predominant exponent of oboe, he has led the field in the development and use of avante garde performance techniques such as multiphonics, double harmonics and alternate fingerings as both a composer and performer. His work Studie uber mehrklange (chordal study) is an in depth example of possible oboe advance techniques, linked throughout with long passages requiring the use of Circular Breathing.

For many years the Jazz Saxophonist Kenny G held the world record for playing a single note at 45minutes using circular breathing, this was broken by Costa Rican saxophonist Geovanny Escalante at a staggering 90 minutes.

But with all of these musical instances the clearest example of Circular Breathing, within a musical and cultural context, is during the playing of the Australian Indigenous instrument the Didgeridoo. Circular Breathing is at the heart of the technique required to perform on this instrument. The hypnotic drone effect created by the instrument relies on the player’s ability to manipulate sound and air flow using tongue, diaphragm, and vocal chords whilst at the core is Circular Breathing.

Stage 1 - Breathing System and Fundamentals

2 systems of breathing

To start the journey into using Circular breathing as a technique on a woodwind or brass instrument, you first need to convince yourself that what seems to be impossible or hard is not.

Exercise 1 – Water in the Mouth

Firstly, get a glass of water and put a large amount in your mouth, don’t swallow it ! Then, breathe normally in and out of your nose....

Question: what happened ? Did you drown ? Did the water get into your lungs ? did the water come out your nose ?

The obvious answers the question is that nothing happened. You body can quite easily breath in and out of the nasal cavity when water is in the mouth. This is the **‘discovery’** required to convince your mind that the impossible is possible.

There are 2 systems in breathing, the mouth and the nose. They can work independently of each other or together.

Copyright © SMREEDS, 2009

Blowing a Raspberry

The next stages of learning are a little bit of fun and should be enjoyed there is nothing serious about blowing a 'Raspberry'.

Exercise 2 – Blow a Raspberry

Imagine you are playing a high not on a trumpet, push out your mouth cheeks, pucker up those lips and try to make a high pitched sound by blowing.. Similar to what is commonly called blowing a "Raspberry". (Though don't poke out your tongue when doing this exercise)

What you are trying to create is an even high pressure, low volume stream of air, with the lips vibrating as a form of 'back pressure' for the air in your cheeks to push against.

Often when learning circular breathing people try to teach by blowing water through a straw into a glass, this is a slightly defeatist way of starting, as the back pressure from the straw and water does not come close to the actual pressure needed to play a Trumpet, Oboe, Didjeridoo or Clarinet. Just use your lips and pucker up!

Breathing OUT

This may be a surprise but the next stage of learning requires you to breathe OUT not IN.

Exercise 3 – OUT the Nose

Breathe IN normally then inflate your cheeks with air, and now breathe long and slowly OUT through your mouth. Try this again but now breathe OUT short and fast through the nose, you should get 3-4 short bursts out prior to needing to take another breath IN. Try his exercise 4 or 5 times, until you feel like you get the motions.

Now you are comfortable with this idea, go back to Exercise 2 and blow a Raspberry, and then go back to Exercise 3. Swap between these exercises 3 or 4 times.

Exercise 4 – Raspberry and OUT the nose

With this we combine both exercise 3 and exercise 4. Breathe IN normally, inflate your cheeks with air, now blow a Raspberry and at the same time breathe OUT your nose, short and fast.

An easy way to check this is to hold up your hand in from of your face, feel the air out of the mouth and out of the nose. This is the first real attempt to demonstrate the 2 systems at work at the same time.

Handy Hint: If you are finding it hard to push air out of the Cheeks, overfill them a little bit more air than you think you need and use your hands to push out the air from the inflated cheeks.

Copyright © SMREEDS, 2009

Breathing IN

Now you are part on your way to discovering the feeling required in your breathing to achieve Circular Breathing itself. The next main step is the reverse of Breathing OUT, and that is Breathing IN.

Exercise 5 – IN the Nose

Breathe OUT normally and inflate your cheeks with some air on the way OUT, and now breathe long and slowly IN through your nose. Try this again but now breathe IN short and fast through the nose, you should get 3-4 short bursts IN prior to needing to take another breath OUT. Try his exercise 4 or 5 times, until you feel like you get the motions.

Now you are comfortable with this idea, not unsurprisingly it is time to combine Exercise 3 and blow a Raspberry whilst you do Exercise 5 and breathe IN.

Exercise 6 – Raspberry and IN the nose

With this we combine both exercise 3 and exercise 5. Breathe OUT normally and inflate your cheeks with some air on the way OUT. Now blow a Raspberry and at the same time breathe IN your nose, short and fast. Try his exercise 4 or 5 times, until you feel like you get the motions.

Breathing IN and OUT

You are now up to your first attempt at what is fundamentally circular breathing.

This is basically Exercise 4 and Exercise 6 together. Short IN and OUT breathing through the nose whilst you are also making a 'Raspberry' sound in your mouth. This may be very short and you may only get 1 or 2 IN and OUT breaths at first, but try for more as you get better.

Exercise 7 – Raspberry whilst IN and OUT the nose

With this we combine both exercise 4 and exercise 6. Breathe OUT normally and inflate your cheeks with some air on the way OUT. Now blow a Raspberry and at the same time breathe IN and then OUT your nose. Remember short and fast, IN and OUT. Try his exercise 4 or 5 times, until you feel like you get the motions. If you can try the IN and OUT breaths long and slow as well as short and fast.

Warning: You may experience hyperventilating during this exercise, be careful and monitor your oxygen intake. If you feel faint for any reason STOP and wait a few moments before you attempt to start again. Do NOT continue if you are consistently faint.

Copyright © SMREEDS, 2009

Stage 2 – Human Bagpipes

Prior to Stage 2, make sure you have a good understanding and knowledge of Stage 1. Do not go on to Stage 2 unless you have attempted all of the 7 exercises in Stage 1 and you are happy that you understand these building blocks of Circular Breathing.

Now you have a good understanding of the basics and have conquered exercise 7, hopefully with both short and long IN and OUT breaths, you can move onto the next important part and the key to Circular Breathing, maintaining the sound.

Inflating the Bag

Having a good imagination comes in handy at this point in the learning process. Just think of your mouth filled with air just like the bag in a set of Scottish Bagpipes. As the air in the bag goes down the piper refills the bag by filling it up again with a good breath.

Exercise 8 - Inflating the cheeks

Take a large breath IN and fill out your cheeks. Blow the Raspberry until nearly about half of the air in your mouth has been expelled. STOP. Refill your cheeks with air from your lungs, from the same original breathe IN. You may be able to get 2-3 part refills of your mouth cheeks from one good breathe IN. Repeat this a few times to get the refill idea.

Handy Hint: If you need to imagine you are the Scottish Piper and raise and lower your right arm, like a Bag piper would. Blowing the air out of the bag and then refilling it up. It is a good visual representation of what you are trying to do with the air in your mouth.

As you get more comfortable with the process in exercise 8, you take less and less time to STOP, for the refilling of the cheeks from the lungs. This change over of air and the refilling becomes a critical step when using the Circular Breathing System on an instrument so don't rush off this task prior to really getting to understand the way in which you 'refill' the air.

It is often the area of the technique which is most obvious when blowing down an instrument and attempting to make the Circular Breathing System seamless in sound.

Refilling the Lungs

If you have a good mastery of exercise 8, then it is now time to combine Stage 1 and exercise 7 with Stage 2 and Exercise 8. The idea is to be able to blow the Raspberry sound with the cheeks whilst breathing IN the nose (or OUT when needed) and then flowing this up by refilling the cheeks. Ultimately the aim is to make this into a one seamless process.

Exercise 9 – Circular Breathing

Take a large breath IN and fill out your cheeks. Blow the Raspberry until nearly about half of the air in your mouth has been expelled. DON'T STOP, now do a quick breath IN through the nose, and then refill your cheeks with air from your lungs, from this new air. Repeat this every day!! This is Circular Breathing.

Handy Hint: At first, take it slowly and perhaps STOP to refill your cheeks as in exercise 8, until you are comfortable with the process.

Copyright © SMREEDS, 2009

Circular Breathing System

This technique of breathing out the mouth with the cheeks, breathing IN (or OUT as required) and then using the lungs to refill the air in the Cheeks is the Circular Breathing System, exercise 9.

The process of Stage 1 in this book is rather simple and can take as little as 10 minutes to master, Stage 2 is a longer process, but with some consistent practice can usually be working as a Circular Breathing System in a week or two.

Congratulations if you have done all of this!!

If you are at this stage you are well on your way to implementing the Circular Breathing System into your daily instrumental practice and performances.

Stage 3 – In Performance

Now it is now time to bring this new idea to your instrument of choice. The best place to start is by using the instruments reed or mouth piece without the whole instrument, or perhaps a smaller Didjeridoo.

NB. Flute Players: the flute is a little bit different when it comes to Circular Breathing. The fundamentals of Stage 1 and Stage 2 are still the same, but when it comes to implementing this onto the instrument the lack of any back pressure created by having no reed or brass mouth piece means that the embouchure needs some special attention. I suggest you now look at a great text "Circular Breathing for the Flutist" (1987) by Robert Dick, there are many good illustrations for correct flute embouchure during circular breathing.

Reed or Mouth Piece alone

This is where you replace the Raspberry sound with that of your chosen instruments reed or mouth piece. Those people on brass instruments or Didjeridoo should find this rather straight forward as the Raspberry sound production is not far removed from the actual instrument technique. For woodwind players with double reeds or single reed mouth pieces the idea is the same but you will have to adjust the air pressure to match your normal playing embouchure.

Handy Hint: Do not change your normal relaxed embouchure style to accommodate for Circular Breathing, rather build up your Circular Breathing System around your normal playing style. This way you can implement it quicker and more seamlessly when playing.

Smoothing out the Bumps

In exercise 8 we looked at what we now know in practice is a "bump" in the sound when refilling air from the lungs to the cheeks in the Circular Breathing System.

When playing on the reed or mouth piece this "bump' in the sound may be even more acute. Now is the time to practice how to minimise the movement between refilling the cheeks and the sound, prior to the introduction of the whole instrument.

Look again at exercise 8 and exercise 9 in Stage 2 when just on the reed or mouth piece. Do not get too impatient, this seamless transfer of air and refill of the mouth is the stage in the Circular Breathing technique which will take the longest to master overall.

Copyright © SMREEDS, 2009

Moving onto your instrument

Now you are more at home with the reed or mouth piece, moving onto the instrument and producing a tone is the next step.

Handy Hint: start by playing mid range notes that are easy to produce and you feel have a stable sound on the instrument. There is no point starting at the bottom end or extreme top of the range of an instrument.

Try playing single notes and hearing the sound when Circular Breathing, the change of air and how much the tone and intonation of the note varies. Again this is a long process and in actual playing it is unlikely that you would Circular Breath on a single long note, but it is good to start here and practice.

Breathing OUT is the Pressure Valve

When we first looked at how to start the Circular Breathing process in Stage 1 exercise 2, we started with the OUT breath. This was important as often you need to breath OUT as much as IN when circular breathing.

On large bore instruments, Tuba, Trombone or Bassoon, you may never need to actually use the OUT circular breath. But on smaller instruments or those with natural back pressure, Oboe or Trumpet, you may get too full up with air when Circular Breathing and the OUT breath when still making a sound through the mouth becomes very important.

Didjeridoo players make use of the OUT breath within their playing technique. Loud crows or higher pitched calls on the instrument require extra air to undertake. All the extra built up air that the player has stored during the Circular Breathing System is expelled in one loud cry.

On conventional western classical instruments this is something that is not done, and therefore you need to practice both the IN and OUT breath in Circular Breathing.

If you are feeling too much back pressure or that you are feeling dizzy or less oxygenated when Circular Breathing then the OUT breath is the pressure valve release, you can then just keep on playing.

Circular Breathing Symbol

Often woodwind and brass players use the string up bow or "**V**" to notate where to take a breath in the music.

When using Circular Breathing in performance it is often a good idea to plan where and when this will happen, just like you notate normal breaths, alternate fingerings or dynamics on the music page.

With this the Circular Breathing symbol uses the common "**V**" symbol of breath with a circle "**O**" , or as on the front page of the book the following:

Copyright © SMREEDS, 2009

Playing Examples

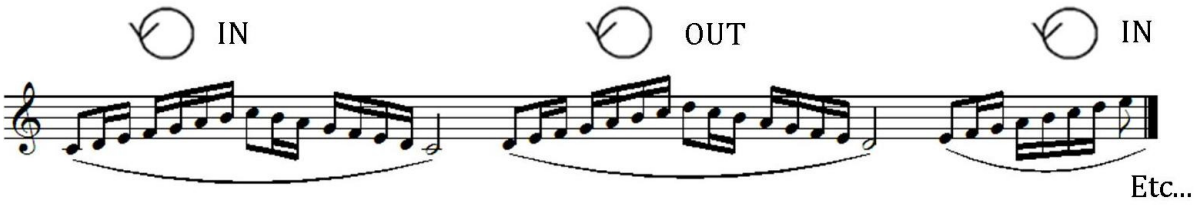
When utilising Circular Breathing in performance it is a good idea to breath IN or OUT when playing scale passages, moving from one note to another or during louder passages. If you can avoid it, do not try and Circular Breath on long sustained soft notes, this is very difficult to achieve in performance.

Handy Hint: all the time you are getting batter at the Circular Breathing technique remember that the IN and OUT breath should not make too much sound, you are trying to make the sound seamless and look easy. Loud snorting or breath sounds are not nice!

The final step is to introduce Circular Breathing into your normal practice routine and eventually into your performances.

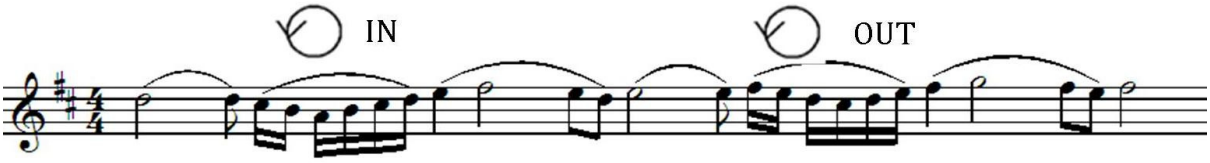
Example #1

Here is an example of how to practice using scales, breath IN through the nose on the way up a scale and then OUT on the way down:



Example #2

In context of a piece of music, Circular Breathing can be used in moving passages to maintain the flow of the line:



Copyright © SMREEDS, 2009