

THREE

Voice: Mind, Heart, Body and . . . Sound

Vibration and Resonance – Making Sound

Many people, when asked to say where their voice comes from, will point to their neck, and insist that their voice is made in their throat. But, as we have learned, what goes on in the throat is only part of the story. For the vibration created in the vocal folds to carry, it must be resonated by other structures around it. To develop the full vibrant sound of your own voice, you must now explore body structures from a new viewpoint.

Vocal sound results from a combination of breath, vibration and resonance. Resonance is what makes a voice ‘ring’, and gives it clarity. We are aware of this all the time, not just when we are singing, or listening to someone else’s singing, but also when we speak. Without the effects of resonance, the sound of our voices would be thin and muffled, reduced to not much more than a whisper.

A NEW SUBSTANCE

In this section it will be helpful to think not so much of ‘voice’ but of breath turned into sound waves – this will be referred to as the ‘Vibrating Out-Breath’: VOB. The amazing transformation of breath into sound – the ‘making’ of sound – is similar to the way the food we eat is transformed into energy and heat. Breath goes in, and comes out as something different from just breath. This simple observation emphasises the need to give attention to the in-breath, as much as to the sound we make. In much the same way that oxygen is ‘food’ for fire, and music is the ‘food’ of love, breath is ‘food’ to vocal sound.

*Resonance is the happy result
of the meeting between VOB and matter.*

RAISING YOUR VOICE

If there is resonance in our speaking voices, it will be there when we sing. It is heightened when we raise our voices, or shout. To ‘raise’ the voice simply

means to make closer contact, through the out-going breath, with the upper fields of resonance within the skull; we literally 'raise' the vibrating breath higher – just as we raise our voices in song.

As your out-breath rises upwards through the lungs and larynx, the inside of your head will be the first and most important centre of resonance. Close your lips lightly and make a light humming sound, holding your cupped hands over your ears at the same time. Your entire head seems to be abuzz with sound. With your lips still lightly together, press the tip of your tongue firmly to the roof of your mouth as you hum, making a NNNNN sound: this will accentuate the resonance.

SKULLS, CAVES, CAVERNS, CATHEDRALS AND DOMES

It is equally possible for a single voice, unaided by artificial amplification, to fill an entire cathedral or temple, and for a whisper or sigh to fill a very small Romanesque chapel. The domes, ceilings and vaulted arches of most ancient buildings were specially constructed to catch and amplify the harmonics of vocal and instrumental sound. Stone and bone have similar capacities for both vibrating and resonating sound vibration. This is known as 'bone conduction'. The skull has its own internal miniature domes and vaults, making it as full of 'resonating chambers' as the temple, cathedral or chapel.

A HOLE IN THE HEAD

The important thing for us to know about the head in relation to resonance is that its hard structure is essentially hollow. There are areas inside the head that function as free passageways for the air we breathe, filtering it and warming it. These are the inter-connecting spaces between throat, nose and mouth. Even when we fill our mouths with food, or when we drink, the back of the throat remains open for the passage of air. If you don't believe this, take a mouthful of water and hold it in your mouth while breathing in and out through your nose at the same time!

You can even hum with the water in your mouth. In fact it is only while swallowing that the air passages are closed off, by the epiglottis (the little flap that closes over the glottis).

Explore

The inside of your mouth (10–15 seconds)

Sit with your elbows resting on a table and put your cheekbones forwards into your hands, letting your mouth 'hang open' for a moment. With your tongue resting against the teeth of your lower jaw, breathe easily and allow yourself to become aware of the shape of your mouth. Your tongue creates the 'floor' of this space; the hard palate, the 'roof'. Can you imagine the shape of the roof of your mouth? Can you feel the inside of your cheeks? Can you feel the back of your throat, or the space behind your nose? Imagine Jonah standing just inside the whale's open mouth and having a look around. Relax. Breathe. Shake, 'snake' your shoulders.

Discover

Resonance, MMO and the 'echo effect'

The more mobile and open we can make the space inside our mouths, the more effectively the sound will resonate. We have our own 'oral echo chamber' inside the mouth – think of the noise made just by crunching a piece of toast! To appreciate the resonating capacities of the interior of your mouth, take an in-breath, hold it, keeping your lips open, and then make clicking sounds with your tongue: CLIP-CLOP. Breathe normally again. Repeat with your lips closed, listening to the difference in the sound you make. Cover and uncover your ears to listen. You could blow out your cheeks and tap them with your fingers, make popping sounds by hooking your finger inside your cheek and then releasing it, or make loud kissing sounds – exaggerate! The sounds you make do not come up from the lungs through the larynx on the VOB, but are solely the echo effect within the resonating space, resulting from a meeting of matter and substance. Making such sounds are good exercise for your tongue and lips as well.

Explore

The roof of the mouth or hard palate (1 minute)

You may need to have a handkerchief handy for this exploratory exercise! Put your right or left thumb into your mouth, just like you did as a child, and gently explore the roof, or hard palate, of your mouth. Just feel what is there: the shape and contours. Take care not to explore too far back or you

will make contact with the soft part at the back (the soft palate), which feels uncomfortable because it is very sensitive to foreign objects, such as your thumb, coming too far inside the mouth.

The shape is not flat, as you may have imagined, but feels rounded and domed. This domed shape offers more open space to resonate the sound waves of your out-going breath.

Explore

Learning to let a Vibrating Out-Breath (VOB) rise (3 minutes)

- Relax the lower jaw, letting it hang; bring your tongue forward and feel the tip just inside your lower teeth.
- Breathe in, using vowel sounds AAAH or OHHH. Then concentrate on letting the VOB rise into the 'vaults' of your hard palate. Think of filling these 'vaults' with sound. Notice what happens to the pitch of sound. Can you raise the VOB without raising or changing the pitch?
- Without forcing, do this again, paying attention to your in-breath and widening your ribs to sustain the sound.
- Repeat.

Learning to direct sound

You can gradually learn to direct the out-going breath into different parts of the mouth, with exciting effects on the sound.

- Relax, open your jaw and let your tongue rest in the bottom of your mouth.
- Breathe in.
- Focusing on the vaulted shape of the roof of the mouth, allow your VOB to rise on an open vowel sound, such as AAAH or OOOH.
- If your sound is breathy or rough, you are probably pushing air, or you are breathing too much in your throat, at the level of the 'false cords'.
- Create sound by allowing the transformation from breath into VOB to take place naturally, as a result of your mental direction.
- Breathe in as and when you need to.
- Keep your whole face and body alert, mobile and responsive to the direction of the sound.

- You can now try to 'move' the sound about as it flows out of your mouth:
 - Towards the front upper teeth.
 - Towards the middle of the 'vault'.
 - Towards the back of the throat.

With practice, this exercise will allow you to experience the whole surface area of the hard palate, from front to back and vice-versa. Observe how the pitch and tone colour changes: the sound seems deeper the more you direct the VOB to the back of the hard palate, and higher as you bring it forward. Should you experience tickling sensations in the back of your throat, this probably means that you are pushing the sound, rather than letting it rise. You need less effort, more focus. Try a softer sound to begin with.

Develop

Resonance from inside the head – bone conduction (5 minutes)

The skull, as we know, is bone, providing a firm, protective shell for the brain. The roof of the mouth is actually part of the base of the skull. Since bone conducts sound, it follows that the more of the base of the skull's surface area we can contact with our Vibrating Out-Breath, the more resonance we are likely to achieve throughout the skull. This is one of the reasons for aiming for an open, expanded, yawning in-breath.

- In an upright sitting position, breathe in and out with your mouth open and your jaw relaxed. Repeat this a few times with your eyes closed.
- Imagine the dome-shaped roof of your mouth getting bigger and rounder; feel the connection with your body.
- Make yourself a mental image of the dome of the diaphragm inside the base of your ribs, the dome of the hard palate, and the dome of your skull. Close your eyes.
- Try and imagine that the upper domes are as large as the lower one.
- Feel the breath circulating through your head and lungs. Feel the expansion in your ribs, and the rising and falling of your breath. Yawn to increase the space even more. You might begin to feel like a huge breathing egg.

- Be careful not to let all the muscles of your face sag, even though your jaw is relaxed and open.
- Make sound, play, vocalise, sing. Do-be-do-be-do-BE.
- Repeat the entire exercise, this time in different ways: in a satisfied way, a questioning one, with longing, or with affection. Notice how the sound changes as you change the message.

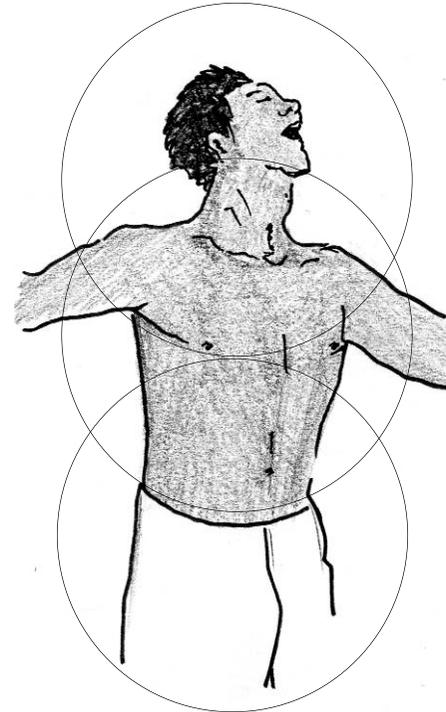
RESONATING THE WHOLE BODY

At this point it is important to realise that the vocal folds set in vibration the breath *below* them, as well as the breath going through them: it is all part of the same flow of air. The breath that is still inside the body, as well as the outgoing breath, will vibrate – as does the air all around us. Through activating the fields of resonance, we thus surround ourselves, both inside and out, with a whole field of vibration.

Explore

Fields of resonance

Let a Vibrating Out-Breath, on an open vowel sound – AAAAH – rise easily from your lungs through your larynx and make contact with the entire roof of your mouth as it leaves your body. Don't push the air. Trust the flow of air: think MMO (Muscles, Mobility, Openness). Make yourself a mental image of the vibrations rolling out of your mouth, your ears, your eyes and the entire surface of your head, right down your spine and on to your feet. Keep the sound waves in motion through steady in-breaths and out-breaths, and set in motion the air around your entire body.



The circles of vibration.