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Singing
for the
Serious Beginner

by
Joe St.Johanser

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Introduction

There are many hundreds of books on singing (Amazon currently lists 114), many written by successful teachers of singing, who have years of experience in teaching people how to sing better. I have a large collection of these books and have learned something from each one I have read. My favorites are listed as references. My top favorite is by Professor William Vennard (currently listed at 184 pounds on Amazon - luckily I got my copy years ago at a much lower price!) Much of what I have to say is not original to me. So why write another?

Well there are one or two insights I do feel may be original, especially my ideas on legato and phrase shaping and perhaps the teaching of registers. More especially I see a lack of coverage of the wide range of different styles and genres of singing in one book and somewhat of a lack of coverage of the known science of the singing voice, thin and patchy though that science is at present. I have tried to rectify these shortcomings in a small low cost book for beginners who are taking learning seriously and wish to learn to sing well, to realize their potential and bring a little joy and pleasure into their lives and those of their audiences.

I have over twenty years experience as a teacher of singing, mostly to adult beginners of ages from 16 to 70. My experience and background are rather different from most other authors of books on singing teaching in that my educational qualifications are in Economics and Computer Science as well as in Music. Prior to becoming a singing teacher I spent many years working in IT as a businessman and freelance consultant, designing and installing computer systems and doing Artificial Intelligence research on Speech Recognition. I have also been for over thirty years a performer on stage as singer and actor in more than 40 principal roles and a composer of opera and songs. I hope these varied experiences will prove advantageous to my readers.

The world of singing teaching is similar to the world of computing in several respects: both are periodically disturbed by waves of fashion and by changes in the terminology of technical terms. Richard Miller is clear on this point in his excellent books on the practice of singing - "vocalism is replete with faddism. At least once a year, it would seem, a new revolutionary approach to singing appears" (Richard Miller 1996 p.213).

Many books on singing and YouTube videos on singing contain statements that are really wrong. The reasons why this should be so is a major mystery. The authors are just sloppy I suppose, which is a shame when often much of the rest of their material is helpful, useful and correct. This sloppiness does not help someone wanting to learn about how to sing. It tends to confuse the beginner looking for knowledge. I do my best to rise above fashion, to be clear in my terminology. My aim is to help the beginner who is keen to get started in learning to sing, or wishes to resolve some confusions. I have helped many beginners over the years to become accomplished solo singers. If my book can help others along this path and experience the joy of singing I shall be well pleased.

This is a book for the beginner, but I hope it can also be read profitably by the experienced singer. You may already have a singing teacher, or be thinking of it. I encourage you to spend the money and get a teacher. It would be preferable if you can find one who is a member of one of the associations of teachers of singing (several are listed at the back of this book) and who charges in the middle of the range, but if not then go to whoever you can. If you are not happy with the teaching then leave and find another teacher.

I work one lesson at a time with my students. If they want to book another and come back then fine - I know they are keen. I hope this book can help you understand the teacher and supplement the lessons. If you can not afford the cost of a teacher then I hope you can succeed with this little book to help you. It is written for you. Read my chapters and follow the instructions and you will definitely improve.

The book is written to be concise. I cover a lot of ground in a few words and pages. Read through the book in small doses, leaving aside things that you fail to understand the first time. Then go back and read again. Hopefully it will make sense on repeated reading.

Practice - Vocal development and Learning songs

You will need to practice! Not nearly so much as if you were learning the piano, but putting in at least three sessions per week lasting at least 30 minutes. Preferably 20 to 30 minutes or so per day if you can afford the time. You need to train your brain and dozens of muscles in your body. Additional time is needed for memorizing melodies and lyrics. Memorizing lyrics you can do anywhere but practicing needs a quiet space and a keyboard of some kind.

Vocal Development

I say quiet space for two main reasons: first the practice needs focus, the engagement of much brainpower and the blotting out of everything that is not related to the singing. If you succeed in the focus you should not be driving - you may run into a tree! Second you need to be on your own, in private. Don't let your partner, parents or children hear you until you can sing a song beautifully and are ready to perform. The loved ones will comment and try to help. Their help is almost invariably not helpful at all.

Ideally the quiet space should have a good acoustic, so that you sound good to yourself. This may be hard to find. High ceilings and absence of carpets and curtains help.

The keyboard is needed to give you a pitch for the melody. I encourage you to get a keyboard. If you are cash strapped car boot sales often have second hand low cost keyboards. You can even download an app on your phone with a basic octave or two. If you play another

instrument, for example the guitar, you could get the pitches of the melody from that, but in my experience it does not work so well.

I am fortunate in that my slightly resonant and clear studio acoustic makes every voice sound good and in that I have a smallish grand piano with a lovely bright tone. The lessons sound good and that makes for a pleasurable atmosphere. Some people can practice in a church, or in the workplace after closing time, or in the hallway at home. If you are stuck with a poor acoustic, low ceiling, heavy carpets and curtains, then learn to sing strongly but not to 'push' your voice. There is always the bathroom - usually good for resonance.

I encourage you to learn *staff notation*. The 'dots' of music printed out on a vocal score or lead sheet. This is not a five minute job, but if you start and keep at it, ten minutes per day or so, you will eventually become a musician! Why ever wouldn't you want to do that? You can manage without, but if you sing for years you will eventually spend much more time trying to do without than the time taken in learning. I am not asking you to become an expert sight reader, or a musicologist, or a red hot piano player. You just need enough so that you can look at the music and slowly pick out a tune with one finger, see what the rhythm of a melody is supposed to be and see the pitch of that note you find hard to sing. It is not difficult if you work at it slowly and use it in your practice. For my students, who often start off with no knowledge of staff notation at all, it becomes an easy natural thing to work with the written down music.

Of course I don't want them to use the music when they perform - they need to memorize the melody and the lyrics - so no sooner have they got used to working with the music than I ask them not to use it. We can always go back to it if there is a query and we will need it again for the next new song.

Singers in pop styles mostly manage without staff notation, as do their colleagues in the band. Somehow band members may feel they lack 'street cred' if they use the dots, or perhaps the problem is that there is no written

music, the band members have perhaps just recorded some playing or singing.

But then everybody may have to spend much wasted time arguing about what the music actually is rather than doing the practice. When they eventually reach agreement they have a problem writing it down on scrappy bits of paper with no system. At the next practice the argument may start all over again. Guitar tab notation is no use for a singers melody (or rhythm).

Some books on singing include the basics of music notation. My book is about singing, not notation, so I don't do this. But I do recommend a fine book that you can buy for very little, that will teach you all you need to know if you spend just ten minutes per day reading it slowly, paragraph by paragraph. 'The Associated Board Guide to Music Theory - Part 1' by Eric Taylor. Clear and succinct in grownup language it has apparently sold over a million copies. With the number I have encouraged my students to buy (not quite a million) I feel I should get a royalty!

So what do you practice in your precious practice time? First you need to warm up. You should treat singing like an athletic sport. The muscles need to warm up at the beginning of the session and warm down at the end. But singing is not running or weightlifting, if you do it right you can keep going into old age, so be gentle with yourself. I set out my warm up and warm down in my exercise section.

Then you practice to increase the beauty of your voice, its power, range, accuracy of pitch, flexibility, development of legato and control of the phrase. I have exercises for each of these. You should do as many of these as you can in your session. Not all each day but a selection. Maybe half your practice time.

Learning songs

Then you practice to be able to perform your songs. I set out as examples a number of songs in twelve different styles. I have made an

attempt to cover every style or type of singing and to fit every type into one of only twelve boxes. I appreciate this is a tight fit!

Most books on singing cover only one or two styles. Many cover opera and Lieder. These are written by those with classical voice training. Many cover music theatre, pop and rock. These tend to be written by those with little or no classical voice training. My students want to work in many different styles. I enjoy singing in all possible styles and I revere some songs from all the styles. So this book covers them all.

Mostly those I recommend in the section on styles are watchable on You Tube, sung by the world's top artists. I recommend you learn as many of these as you can, those that suit your voice and character type, with the help of my notes alongside, and perform them when possible.

When you practice there is a mantra that you should repeat often '*Practice very slowly - progress very fast*'. It really works! Sing a phrase of the song you are learning very slowly, then again and then again. Your brain will be working out all the myriad little commands it needs to give to the tongue, larynx, rib muscles, belly muscles and many others. Then, when you start to speed up, they will be there for you without further thought. Learning takes place over a period of days and weeks. Every time you learn something new and then sleep on it, it gets more fixed in your brain.

There are a number of different styles of learning - visual, aural, verbal, physical, logical and so on. Try all the styles and see what suits you. Take memorizing the melody with lyrics. Some see the music in their mind's eye like a photograph, others have an image of some kind. Whatever the method remember the word or pitch has to come from your brain direct, not via the eyes to the brain and not via the ears to the brain - so practice this and please, once the basic work is done, do not look at a bit of paper or listen to a record when memorizing, but search for the word or pitch in your brain. If it is not there then look back to the bit of paper or the recording, put it in again and try again.

Singers tend to spend far longer on a song than do instrumental players. They may well keep a song in their repertoire for the whole of their life. I recommend learning new songs, perhaps one new song a month or so, but am happy to work with old songs as long as they give interest.

Garyth Nair, in his 800 page magnum opus on singing (Nair 2007), has many wise words on learning a song: 'because of the undeniable emotional rewards of singing complete songs, during the preparation process we are likely to confuse the act of performing a song with that of learning the song. As a result singers often sing full phrases or even the entire song before they are ready', 'learn the melody one phrase at a time. Sing each phrase as a single vowel vocalize; for example on 'aaa' rather than the actual words in the song, (Nair 2007 p648, p655).

He then asks the singer to then sing the phrase with the actual vowels in the syllables of the song: just the vowels - no consonants. This is a very good idea. I learned this method from the grandson of Gabriel Fauré, the nineteenth century French composer of wonderful 'melodies'. He called it 'intoning'. It works wonderfully well. Sing a phrase with just one vowel (say the first vowel in the phrase). Then with another vowel (say the second vowel in the phrase). And so on until you have used all the vowels in the phrase. Then sing it with the correct vowels. You can do it very slowly - maybe just one syllable at a time, to see if you understand and can produce the correct vowel. Finally sing it with the correct consonants and vowels and gradually speed up till you reach the correct tempo. Some find it hard at the start as they have not grasped the idea of separate phonemes in syllables. Do persevere. It is worth it. You'll get the idea eventually.

I disagree with one or two small things that the excellent Garyth Nair says. He invents a number of acronyms that cause confusion to the casual reader - no need for that - just use the English words. He insists that the harmony is learned before the melody. His method will work for many. But I say that everybody learns differently. You may be inclined to need the harmony or be more like me. In my own case I have no problem

learning a melody, however strange it is, and singing it with what ever harmonies are used. My music brain is melody oriented. I once sang a song quite happily where the pianist used the wrong key (5 flats instead of 6 if I remember correctly) - it gave me no trouble at all as I simply didn't notice. I can't remember what the audience thought!

Learning the lyrics is often easier, but still needs work. You need to be able to recite the lyric without singing. Unless it is a very weird pop lyric where this wouldn't make any sense - na! na! na! Then sing from memory. When you fail stop and put the particular syllable, the one that failed to be retrieved from your brain at the moment needed, back in your brain, and try again. Once the lyric is basically learned you will find that it is just the starting syllable of the phrase that fails to be there when needed. The mouth and tongue shapes for the first couple of phonemes of the phrase. Once that comes out the rest will follow with no thought. You need to practice the breath before the phrase, with the brain looking a few milliseconds ahead as the breath is taken so as to set up the articulators, the mouth and tongue shapes, for the first syllable. Then the rest should be automatic.

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Voice Types

There are many voice types and a large number of names that go to describe them. The names differ with each style. You need to learn a bit about the names for all the styles and gain some understanding of what the names refer to. You need to work mostly in the voice types that suit you best, but to experiment with others. As a beginner it may take a long time to find the type (or types) that fit you comfortably. Please do not put yourself into a voice type box too soon. Feel free to try all types that interest you.

The big type split is male/female. This is important in opera, oratorio and musicals, where the characters are male or female (though females do sing 'trouser roles' as men in opera) but less so in other styles, where songs are less commonly assigned to a particular sex. I believe males and females are more vocally similar in many respects than used to be understood, apart from the natural octave difference in pitch. But the natural octave difference does make the voices sound different. During the last fifty years or so females have tended to sing lower and lower in pop and music theatre, which they can do using microphones to give their voices power. If men were to sing similarly in the lower part of their voices they would sound very different, but, especially in pop, they have gone up high.

Nearly all solo songs are written in the treble clef. Men and women thus sing off the same hymn sheet. To do this the men have to sing an octave lower than the written pitch. This is a natural thing to do but causes much confusion among some pianists and some transcribers of pop songs. More on this later.

The next type split is the natural pitch of the voice: high, medium or low. Most of us are medium, just as most of us are medium in height and medium in weight. Some fewer are high and more rarely, some are low.

The third type of split is the character of the voice: what role it is playing: young or old, serious, heroically dramatic, coquettishly flirtatious, sexy or tragic, complaining or comic, beautiful or ugly, highbrow or lowbrow.

In opera style most men are naturally baritones and most women mezzo-sopranos. Singing off the same hymn sheet the highest written note for trained singers is F sharp or G, an octave above middle C: lowest note a little less than 2 octaves lower, written B flat or A, a few notes lower than middle C. Some fewer are naturally high - tenors or sopranos (highest note for trained singers written B or C, lowest note a little less than 2 octaves lower, written D or C). Rarely some are low - basses or contraltos (highest note for trained singers written E or F, lowest note a little less than 2 octaves lower, written G or F).

The name of the voice type in opera is '*fach*', German for subject or specialty (quite a tricky word to say if you can't do the guttural!). There are a great number of special names - a coloratura is a female that sings very high with lots of vocal twiddles, a spinto a female that sings very dramatically and powerfully, a soubrette is a female that sings sweetly and prettily, a helden tenor is a male that sings powerfully, a buffo baritone is a comedian, a basso cantante a male that sings low but beautifully. Lyric means sweet and beautiful.

The joy of Lieder or art song (more on this later) is that one creates one's own character - one can be an old woman singing a young man's song and vice versa. I recall singing 'The song of a nightclub proprietress' by Madeleine Dring, setting the marvelous words of that great poet John Betjeman. It is about an old woman, very drunk and despairing. At the end she sings 'I am old and ill and terrified... and tight' - I had no problem putting myself into that person's world and making an impression with that phrase - it's all there in the poem and the music!

In popular styles most of us humans are still medium, fewer high and more rarely low. But the ranges required are very different in each style. In

some styles the range is similar to opera, but in basic pop the highest required notes for men are four or five semitones higher regardless of voice type, for woman four or five semitones lower. The lowest notes similarly: higher for men and lower for women. This has the odd effect that without a visual it is often difficult to tell if the singer is a man or a woman, as evidenced on the TV programme 'The Voice', where the judges listen first with their chairs facing away from the contestants. The names for the different types are not at all standardized. People make them up as they go along: belter, legit, bluesy, folky, pop princess, shouter, soul, crooner, punk rapper, gangsta, rock screamer and so on. The easiest way to name a voice type in this style is to refer to the great artist that represents that style - Ella Fitzgerald, Frank Sinatra, John Lennon, Madonna, Michael Jackson, Katy Perry, Janice Joplin, Idina Menzel etc.

A third type split is in the character of the voice. Ideally this should suit the character of the appearance and personality of the singer. It may be aggressive, loud and brassy, or tall and dark and somber, or small and light and bubbly, or delicate, humble and fey. Or much else besides. A singer should try out all possible characters and see which work best. A singer should be an actor: try acting loud and brassy or delicate, humble and fey.

You don't have to be just one thing. I would ask you to experiment. Professionals tend to get stuck in one rut, but one of the joys of being an amateur is that you can try a range of styles and voice types.

Age related character is a fact of life. It is fairly easy for a young person to act old (actually not so easy, it needs good acting - lots of makeup, walk slow and crooked), but very hard to act young if one is not. For years I acted young by using lots of makeup (which took twenty years off my age) and moving fast and very actively, but I had to give in in the end, grow a grey beard and give up the romantic leads I enjoyed playing. As a beginner you need to remember time's winged chariot and get the roles while you can - don't leave it till tomorrow!

The mechanism and acoustics of vocal sound - the larynx, the vocal tract and the room.

The sound of a voice as heard by an audience member is made principally from three components, each operating in one of three locations: first the larynx (or voice box), second the vocal tract (the throat and mouth - which can be split into many smaller named parts that I will ignore at this point), and third the room or hall or theatre into which the voice is projected.

the larynx

Many books on singing have lots of anatomical diagrams. Many of these diagrams are misleading, some are inaccurate. I do have a little see-through model of the larynx that I show to students, but I run through the anatomy bit in the first lesson in twenty minutes and then rarely mention it again. There are no anatomy diagrams in this book. This is not a medical textbook.

On the other hand you do need to know a few things. It will help you to get a mental picture of which bits of your body are doing the work when you sing. Of course you already know how to speak and make vocal noises like shouting, whooping and screaming, but musical high quality singing is not so natural for most people. Some just open their mouths and sing, but most people don't find it so easy.

I set out below an outline of the major items. If you are interested then of course do take it further. If you do want to read further then do try to avoid the many inaccurate writings. I recommend Vennard 1969.

The first thing is to absorb a little knowledge about the *larynx*. The larynx is in the front of your throat and under your chin. It is joined to the back of your tongue. It is a delicate and intricately constructed mechanism. A bit like a Swiss watch. In men it is often more prominent and visible - called the 'Adam's apple'. Feel the hard cartilage, like a shell, very gently

with your fingers. If you close your mouth and swallow or sniff deeply through your nose, or open your mouth and yawn you will feel it bob up and down. Classical singing styles generally require a lower larynx position; pop styles a higher larynx position.

Some books on singing advise students to manipulate the larynx. Please don't do this! I repeat - it is a delicate mechanism!

The larynx as an organ serves many bodily functions. There are two holes from the mouth down into the body, one for food at the back and one for air at the front. One main job for the larynx and its associated structures is to prevent food going down the wrong hole and entering the lungs instead of the stomach. You will know the power of the coughing that happens if some crumb does go down the wrong way - all more or less automatic. Another job is to block the airway so that high pressure can build up in the abdomen to provide a support for the muscles of lifting or defecation. Perhaps these functions evolved before making sound was especially important.

Inside the larynx are the *vocal folds*, also called the 'vocal cords'. Two short lengths of complex muscular tissue that open and close when air is blown through them. They make a small buzzy sound. It is not loud.

The blowing of air is done by various muscles contracting and squeezing the body. The squeezing generates a high pressure. If the vocal folds are held tightly together the pressure builds up until it suddenly pushes the folds open. The air rushing through lowers the pressure and the folds suddenly snap back together. This is the 'Bernoulli effect', also involved in generating lift over an aircraft's wing. Other effects are also involved - vibration of muscular tissue and so on - best not to think too much about this. The blown air does not exit the mouth at high speed but very slowly. There is a famous exercise whereby a soprano sings to a candle flame held just in front of her mouth and it does not flutter with her breath. The energy has been transferred to the sound wave.

Two principal sets of muscles are attached to the vocal folds - the 'thyroaretenoid' and the 'cricoaretenoid'. The former shorten and thicken the folds. The latter lengthen and stretch the folds. Generally both are used at the same time, but vary in their strength of effect. The former used more for lower notes and the latter more for higher notes. They change the *timbre* of the sound in complex ways, from rich brassy low sounds to fluty high notes. We refer to these differences mainly as differences in *register*.

There is a great video on YouTube showing the vocal folds of four classical singers as they sing a motet ('Cords hear us and have mercy', director Sara Lundberg 2010). The video is mind-blowingly weird but shows excellent views of this wonderful organ.

When singing a note at the sounding pitch of middle C this opening and closing occurs roughly 261.6 times per second. This is far too fast for conscious control - some body magic occurs when you think of a middle C and then sing it so that the opening and closing is done correctly. The body magic is a brain pattern of control of sub-glottal pressure, itself a complex of laryngeal and support muscles.

The output from the vocal folds is a vocal sound. By this we mean a 'sound pressure wave'. Now just as I am not asking you to go deeply into human anatomy neither am I asking you to go deeply into the science of 'acoustics'. The scientific study of sounds. But you do need to have a basic understanding.

Air is elastic and when it is compressed it bounces back. The sound pressure wave that we make is a series of compressions and bounce backs (rarefactions) of the air. The wave travels at the speed of sound (what else!), roughly 740 miles per hour at sea level. The air does not travel. Making the compressions requires energy, delivered from the muscles of the human making the sound. When the sound wave hits a hard surface it bounces back but leaves some energy behind, heating up the surface very slightly.

The opening and closing of the vocal folds imposes a fundamental pitch or frequency on the sound. On the frequency (pitch) of sounding middle C there will be 261 cycles of opening and closing per second. Each cycle lasts roughly 3.83 milliseconds. However there will be many many more frequencies (pitches) in the sound as it exits the vocal folds. If you sing a note you are actually singing a '*musical chord*', many notes of different pitches sung together. (Sundberg 2000). One is one's own little orchestra! Many of these notes will be harmonics (simple fractional multiples of the fundamental frequency like 523 cycles, 1046 cycles etc up to 20,000 or so at the limit of human hearing) and many will be inharmonic (or noisy). There will be different amounts of energy in each of these frequencies. This is what gives you your unique sound.

the vocal tract

The second component of the sound of the voice is made in the tube between the vocal folds and the lips. This is the 'vocal tract', the throat and the mouth.

When the wave reaches the throat and then the mouth it is greatly modified (acoustic engineers refer to this as being *filtered*). We call the throat and the mouth resonating spaces. The wave bounces around in these spaces and back down again to the vocal folds, as well as out of the lips into the air. Remember the sung sound is a big chord of many frequencies (pitches), the many harmonics of the basic pitch being sung. The resonances increase the power in some frequencies (pitches) and decrease it in others (and also add frequencies that were not there before). This makes a big difference to the sound (timbre, color, loudness) of the voice and much singing practice is concerned with this process.

Certain resonances (called 'formants') give vowels their characteristic sounds. Particularly the two lowest - called F1 and F2. We can all tell an 'aaaa' from an 'eeee' sung at the same pitch. The 'aaaa' sound happens when F1 and F2 are close together in frequency, the 'eeee' when they are

far apart in frequency. You make these sounds by moving your tongue (particularly the hump in the middle) to different positions (see the exercise). The movement of the tongues sets up a new space arrangement in the mouth and changes resonant frequencies. The other vowels have other patterns of F1 and F2.

A group of three formants (F3, F4, F5) cluster together at a high pitch (at around 3000 Hz frequency, right at the top of the piano keyboard). Getting these to work gives a singer (especially male singers) power and richness. We call this the 'singer's formant'.

The F1 and F2 formants that allow us to identify vowels do not vary very greatly with the fundamental pitch being sung, or with the sex of the singer, mostly being in the area of roughly 500 Hz to 1000 Hz. (above the pitches that most men can sing but within the pitches that many women can sing). They do vary to a degree, women being higher than men on average but somehow the brain manages to compensate and still hears the patterns

You may be able to hear these formants as delicate quiet echo sounds in the mouth by forming the tongue shapes in turn for the five Italian vowels shared with English ('eee', 'air', 'aaa', 'awe', 'ooo') and tapping the cheek to hear the first formant F1 or whispering to hear the second formant F2.

the room

The acoustics of the room are of major importance, but not often discussed. They can add bloom and beauty to the sound or deaden it and muffle it. You generally can not change the room acoustics, but an experienced singer can compensate a little to improve matters. I suppose this is largely done unconsciously. You can hear the compensation kick in at classical art song concerts for example when the first song or two is less good and then the remainder greatly improve. Jerome Hines, who was for fifty years a star operatic bass at the Metropolitan Opera House in New York, offers this very helpful advice. "The real secret of singing in the big

halls is to tease the hall into singing with you' (Jerome Hines 1997 p126).
Easier said than done but nevertheless very good advice in any hall.

A singer will not hear what the audience member is hearing without a little change of mental focus. The singer's own sound reaches the singer's own ear through fat, bone and muscle and by bending sharply round from the open mouth to the ear. Both of which excursions modify the sound spectrum considerably. I ask my students to listen to the room - to the sound bouncing back off the walls, floor and ceiling to the ear. With focus you can then hear what the audience is hearing.

Breathing and Support

Textbooks written by singing teachers generally make a major fuss over the functions of breathing and support. My practice is not to mention these matters to the beginner in the early stages of our lessons together if, as is generally the case, the student is breathing reasonably and supporting to some extent. There are more important things to worry about at this early stage. If, however, there is a problem with either breathing or support, then the topic must be broached immediately. It may be that I see the problem or, more likely, that the student feels there is a problem and wants it addressed. Once the student is more advanced, work in this area will bring about further improvement. So in the end there is no avoiding it.

I regard breathing and support as two sides of the same coin. Breathing in is 'inspiratory' - one breathes in and fills the lungs with air. Support is 'expiratory' one sings (or blows the air out) and the lungs empty. Some teachers use the word 'breath control' for support - it is the same thing - one sings (or blows the air or the breath out) in a controlled stream. The problem with 'breath control' is that it is not entirely clear that the word refers just to the expiratory phase: people get confused and think about trying to control an inspiratory breath. This is possible but not helpful. Both breathing in and blowing air out are entirely natural (sorry to state the bleeding obvious!). What is the extra magic needed for singing?

The extra is partly the use of muscles. Different muscles are used for breathing in, the inspiration, and for pushing the air out and singing, the expiration. When talking, or running, one does this without thinking. When singing (which is not so natural - more on this later) one needs to be taught non-obvious muscular movements, then one needs to practice the movements until they do become natural and very little thinking is required.

Let's take breathing in first - inspiration. I ask my students to practice three methods - belly breathing, ribs breathing and back breathing - so as to isolate and become accustomed to different muscles. In reality all three methods are joined together. Belly, ribs and back and the associated muscles all work together. But doing one alone helps the brain to work out what is going on.

I use the rather vulgar term 'belly' to avoid misunderstanding. One alternative, 'stomach', is the digestive organ as well as a term for the belly. Another, 'diaphragm' is the breathing muscle as well as an old term for the belly or 'midriff' - much confusion here.

The diaphragm

The diaphragm is the main breathing muscle. Unfortunately so much nonsense is talked about the diaphragm that I sometimes feel it is best not to mention it at all. None of my teachers ever did! The famous bass opera singer Jerome Hines has this to say, in capital letters in his excellent book: "The diaphragm is often referred to as "the principle muscle of support" THIS IS FALSE'. (Jerome Hines 1997 p15).

I recently saw a book for beginners which made this fatuous statement: 'a singing breath usually starts with the diaphragm muscle and then travels upward from there'. What on earth is that supposed to mean?

So here are the facts ma'am - just the facts. The muscle is placed horizontally across the body, rather high up the chest. When you breath in it contracts and goes down an inch or two. It sucks air in to the lungs by creating a slight vacuum in the lungs. It is largely an involuntary muscle (not entirely but leave that for now) i.e. it is not under conscious control. You can't feel it contract (though you can feel its effects if you place your fingers on your lower ribs - you will feel a push as it contracts, the lungs fill and the ribs push out). When you stop breathing in it relaxes and goes back to its previous position.

Apart from the plain barmy, the main errors regarding the diaphragm seem to be made by three groups of people. If you come across them be aware they are talking nonsense (but best not to contradict them - they are proud of their ignorance!). The first group are some choir masters and some singing teachers without modern training. They say things like 'sing from your diaphragm!'. All the while patting their belly button. To me it is plain that do not know where the diaphragm is and that they, for some strange reason, are calling the belly the diaphragm. It would be reasonable to say 'sing from the belly'. My theory is that the word 'diaphragm' has somehow acquired two meanings - one is the medical name for a muscle and the other is a prudish word for belly (perhaps dating from Victorian times - and related to 'midriff', 'abdomen', 'stomach', 'tummy' etc).

The second group are singing teachers who have got their terminology muddled and are blindly following a fashion. They say 'I breathe diaphragmatically'. Well we all do. If your diaphragm packs up they have to put you on an iron lung to stop you dying!

The third group are advanced singing teachers talking about 'appoggio'. Supposedly this is the Italian for 'support' but many of these advanced singers are referring to more than what I call support. I do say a lot about the very important matter of 'support' later on but it is safe to say that this extended reference to appoggio is an advanced technique (and much disputed). I discuss it in my advanced techniques section..

I talk about three breaths, belly, ribs and back. These three breaths should be practiced regularly. In reality they are all one breath, all joined together: but focusing on one at a time this way improves matters. Sing a song phrase using each breath type. Then sing a whole song. Take as long as you like for the breaths - it is an exercise not a performance. When all is working properly then forget about breathing until you have a problem. Don't make too big issue of breathing - it will inhibit you. I set out exercises for the three breaths in the exercise chapter.

Incidentally a 'phrase' for a singer is that which is sung on one breath. Most composers and music editors do not put singers phrase marks in the score, so, to a degree, one can choose the phrase length for oneself. It is a matter of style. More on this important matter later.

Phonetics - Phonemes, Vowels, Consonants and Syllables.

I worked for many years in Artificial Intelligence research (specifically in automatic speech recognition by computer using genetic algorithms). I had to study phonetics a lot. The United States Defense Agency (DARPA) had produced an excellent CD on which were thousands of spoken sentences from 80 odd American speakers, all painstakingly labeled by hand with the words and phonemes used. It was a marvelous research tool. I would spend hours looking at the speech spectrograms of these sentences, which showed, millisecond by millisecond, the patterns one could see, using the labels, where each consonant and vowel started and stopped. After a while one could begin to recognize the pattern of each vowel and consonant. You can see lots of this speech spectrogram stuff on the internet. I recommend you to look and do a bit of research yourself. If you have a microphone and a computer you can download the software and see your singing voice in all it's glory. It is tempting to use this technology in my lessons, but I find I never have time in the lesson - we are too busy. The spectrogram, though very interesting, does not add enough to justify the time. Working without a teacher you may find it helpful with legato and singers formant work (more later).

Anyway this basic acquaintance with phonetics is very useful for my singing teaching. I give a brief fifteen minute mini lecture on phonetics to my students early on. Just the basics, which is all you need. If you get interested and want to go further try Peter Ladefoged's textbook on phonetics (Ladefoged 1982), the Handbook of the International Phonetics Association (IPA 1999) and download the International Phonetic Alphabet diagram.

So the basics are as follows. First to know that the units of speech (and singing) are called phonemes - some 50 odd distinct sounds in

English. They are split into consonants and vowels - some 30 odd consonants and some 20 odd vowels.

Yes some 20 or so vowels - despite the weird thing they teach children learning to read English that there are only five vowels. English spelling is weird. I think the teachers are talking about letters of the alphabet used to represent vowels. If this is so there are six if one is thinking of single letters only, the sixth being 'y', as on the end of 'easy', or many dozens if one is thinking of multi-letter spelling combinations. For example the 'ou' of 'cough' or 'rough' or 'plough', which represents three different sounds in these three different words: two different single vowels for 'cough' and 'rough', or two other vowels joined together in a diphthong for 'plough'! It's a good job the teachers don't have to teach the children to speak the language - they do that for themselves as infants.

I am not talking about letters of the alphabet but about the sounds we make with our voices.

Passing right along. Here are 20 vowels - 11 'pure' vowels: {'heed', 'hid', 'head', 'had', 'heard', 'hut', 'hard', 'hock', 'hawk', 'hook', 'hoot'}, 8 'diphthongs': {'here', 'hare', 'tour', 'hay', 'high', 'how', 'hoy', 'hoe'} and 1 'schwa' (see below).

Some 5 of the pure vowels are 'short' {'hid', 'head', 'had', 'hut', 'hock'}, the rest 'long'. The vowels are given these names because they are always said this way - in speech but not in singing. Singers have to learn to sing long notes on short vowels. It needs practice. The front end vowels of the diphthongs are not quite the same as their equivalents in the pure vowels. A vowel is often much 'reduced' (shortened and made very soft, almost thrown away) in speech and may often need to be in singing as well. The reduced vowel is called a 'schwa' - as in the front of 'about', or the end of 'father'. Again this is short in speech but may often need to be sung long.

The vowels will sound slightly different in your accent than they do in mine but the words are spelled the same and you should have roughly 20 as

I do. The language is made up of syllables. A syllable contains a vowel and may or may not have one or more consonants front and back. When the vowel changes to another (ignoring 'diphthongs' for the moment) then one has changed to a new syllable. You can split one syllable from another between two or more consonants where you choose. Some academics have written fat books on what makes a syllable, but let's keep it simple. Renowned phonetician Peter Ladefoged actually claims it is 'a unit of speech for which there is no satisfactory definition' (Ladefoged 1982 p285)! I teach my students to sing on syllables (at least at first).

There is one fundamental difference between vowels and consonants. Not the length or duration (for example the consonants 'sssss' and 'nnnn' and 'llll' can go on as long as you wish), not the presence or lack of a pitch (I teach that in singing all consonants have a pitch - even 'sssss' whose pitch is very vague but which can certainly be high or low). The difference is that for a vowel nothing is touching in the mouth, whereas for a consonant something is touching (or getting very close). Try my exercises on vowels and consonants to see for yourself.

The last phonetics item is the 'diphthong'. You need to understand this term. Get familiar with it. Where the single vowels in a syllable become two (as in 'boy', 'my', 'show' etc). Rarely there are three vowels ('fire', 'hour'). With three vowels we get a 'triphthong'. English is full of diphthongs and one needs to make a style decision when singing them. You can't just use your speech pattern when singing a diphthong on a long note or you get some very funny effects. Sing 'cake' very slowly on a long note and feel the tongue move from 'air' to 'eee' as the vowel changes, or 'show' and feel the tongue move from 'awe' to 'ooo' as the vowel changes. More on this later.

I have refrained from using the excellent International Phonetics Association (IPA) phonetic symbols in this book. These symbols theoretically stand for phonemes that are standardized and unchanging. Very useful one would think but then one has to learn how to make and

hear the sounds that the symbols refer to. Alas that is very difficult and takes a lot of work.

Many books on singing do use the symbols, almost invariably with errors caused by the writer assuming a particular accent, when they helpfully offer a transcription into English that only works for their own accent! Hopefully we all know how to speak English and hopefully my examples like 'aaa' and 'ooo' work well enough for all accents. If you want to explore you can look at Ladefoged's textbook and the IPA book - 'Handbook of the International Phonetics Association' (Cambridge University Press 1999), but be warned it rapidly gets complicated and they don't mention singing.

Your Different Sounding Voices: registers, breathy, pressed, belt, twang, passaggio, placement, pitch, range, other differences

We all of us can speak and sing with several different sounding voices. Over hundreds of years singing teachers have given names to these different voices. You may have come across the commonly used words in English; 'chest', 'head' and 'falsetto', referring to voice production. These words have been used for hundreds of years. The meaning is quite clear to experienced singers.

In more recent times the use of scientific instrumentation, the slow but gradual increase in scientific knowledge of the voice and the rise of a cohort of pop teachers without links to the old body of knowledge has added much confusion along with much insight. The ever changing fashion among teachers, and particularly the influx on You Tube of teachers influenced by new style music theatre terminology, has added to these three words a whole slew of other words; modal voice, mode one, mode two, heavy mechanism, light mechanism, mix, belt, cry, twang, loft, light chest mix, TDP, CDP, mode one dominant, yell, whoop, turn. Most of these descriptive terms refer to registers but others refer to other differences. Now confusion reigns in this tower of Babel! Scott McCoy says 'the entire issue is a semantic minefield, requiring on to tiptoe through diverse, competing terminology.' (Scott McCoy 2004 p64).

Alas I can't ignore the subject. So I need to explain as best as I can. You need to work with the different registers and to be able to recognize and use your different voices, so you need to have a terminology that you understand and that makes sense to you. It seems to me (and I find that I am alone among the writers of books on singing in this) that it is easiest to work with the different registers and other items in speech to understand

them and then to work with the singing voice. My students work this way and don't seem to get too confused.

registers

First let us be clear that not all differences in the sound of one person's voice are due to register differences.

Second we should understand that by and large singers in classical styles try to smooth out the differences caused by the different registers while on the contrary pop singers often exaggerate them.

Thirdly and most importantly you should realize that registers are not mutually exclusive. We can and do use different registers at the same time. The larynx can switch from one to the other very rapidly or use a mixture of several at the same time. We separate them out to experience and understand the possibilities of each.

The registers are related to the pitch. I say there are five registers, but that most of the time we only use two. So here are my names, going from low to high pitch: 'growl', 'chest', 'head', 'falsetto', 'whistle'. The ones we use mostly are 'chest' and 'head'. And we mostly try to smooth out the difference between them (except in some pop styles which exaggerate them). The lower registers utilize more of the thyro-aretenoid muscle action to shorten and thicken the vocal folds, the higher ones use more of the crico-aretenoid muscle action to lengthen and thin the vocal folds. Mostly we try to use both sets of muscles - in varying proportions. But we cannot control these muscles directly.

Working with speech we can use our basic instincts to summon up the different registers.

'growl' register

When I take a walk up my garden in the morning I often spy a fox reclining under a fir tree. I want to scare it away - so I growl. I expect you can growl. Give it a try. Nobody sings a whole song with a growl except Lee Marvin, who sings his song with a heavy growl in the mix ('I was born under a wandering star' UK number one in 1970!), but many pop singers

start a phrase with a growl. Try imitating a peg leg pirate with a parrot on his shoulder saying, 'Aaaaaarrrr Jim lad, here's that there gold!' Some teachers call the growl 'vocal fry', and say use of this register is harmless, but I don't want people to use it much. Let's move on.

'chest' register

Now the chest register. A bit higher in pitch but still low. If the fox still hasn't moved on I can shout or yell; 'Hey - get the f***** off my lawn!' You might try pretending you are abusing the referee at a football match 'Hey ref what d'ya think y' doin!' Probably you are now in chest register. Dial down the loudness and violence, cut out the actual shouting and speak in 'male commander mode'. We all know the stereotype. You don't have to be a man to make this imitation - and many men have to try hard to do it - so it is not a real gender thing. I just need the stereotype. It sounds rich, powerful and somewhat 'brassy', but it doesn't want to go high. Going high causes great effort. It was called 'chest' register because one is supposed to be able to feel vibrations in the chest. You may or may not feel this. It is not important. The resonance is going on in the vocal tract, not the chest.

'head' register

Now the head register. A bit higher still. This is harder for some men and a few women. I ask the males to speak in a somewhat girly voice and hope the females can use their normal voice. Some females can. Others need to be coaxed to be more girly and drop the chest voice sound typical of the modern independent woman. 'Try to use a younger little girl voice'. It is a lighter, breathier, sweeter, sound. One extreme version is the sugary, flirtatious Marilyn Monroe greeting to Kennedy, 'Happy Birthday Mr. President'. The weight and tension goes out of the voice. It is not loud. But it is not falsetto, the next highest. I assert that males and females both use head voice and that it is produced in a similar way (with help from the crico-arytenoid muscles). Best not to worry about this - just get used to the

sound and feel of the head voice if it is your unused register. High, floaty, fluty, breathy. Maybe a feeling of resonance in the head somewhere, maybe not.

'falsetto' register

Most men can speak in falsetto if asked to speak like a female pantomime dame - it is usually a comedy voice for a man (forgive me counter-tenors and many modern pop males - more on this below). Most men can imitate being one of a gang of hot-blooded youths standing on the corner watching all the girls go by, 'whoop, whoop!' Rather like a gang of chimpanzees too. Most women have trouble making a different sound as, their falsetto is very similar to their head voice, until I get them to scream. Usually the scream is falsetto in women.

'whistle' register

The highest register in pitch, the 'whistle' is not available to people over the age of five or seven (except for a rare few). Think of children in the playground. The sound carries for miles, 'Squee, squee!' A few women can access it in the scream and some few even when singing very high - above the F above top C - often called 'flageolet' - not a pretty noise in my view.

So having identified and produced these register sounds in speech we then move on to singing, and we can then see the point of it. Try singing up a scale - say from C4 (middle C) to C5 - an octave - do, re, mi, fa, so, la, ti, do. These are written, same hymn sheet pitches - men sing these notes an octave lower. See below.

Oh but first we need to look at pitch and range.

There is much nonsense talked about range, the difference between the lowest note you can sing and the highest. Despite claims from some pop singers that they have a five octave range I can assure you they are talking nonsense - however they growl and scream they won't get beyond

three octaves and most of that will sound pretty bad at the top and bottom - large drainpipes being flushed, cats being tortured by squeaking mice? You should be happy if you achieve what most top singers can do - namely a two octave range of well produced sound. Most songs need less - often less than an octave.

If you are truly a beginner, however, your natural range is probably too small and you will need to increase it. Some of us are lower voices, others are higher voice. Most of us are in the middle - middle voices. I find it odd that choirs are generally split into two - high voice and low voice (for the men tenor or bass, for the women soprano or alto - where do the majority of middle people go, the male baritones, the female mezzo-sopranos?). It is like saying are you tall or short ? Well actually I am of middle height - like most people. My exercises are for middle people. If you are a high voice or a low voice you can change the key accordingly.

Whatever type we are we will probably find that the high end is the problem, because composers very often use the high end for the climax of their songs.

Now men naturally sing an octave lower than women. But they don't write out two different sheets of music for a song - one for men, one for woman. We all have to sing from the same hymn sheet. Normally this is done by using the treble clef and having the men sing transposed, an octave lower than the written notes (the women sing the notes as written). Men get used to singing an octave lower than the written note they hear played on the piano, so if you play a note an octave lower (the correct note) they sing an octave lower still.

One would think pianists would have worked this out after several hundred years but many choir accompanists still get it wrong. They helpfully play the sounding note rather than the written note in the treble clef (that is they play an octave down) and are surprised when the men sing an octave lower still. For the vocal melody in the bass clef, where the

written note is the same as the sounding note they play the written note and are surprised when the men sing an octave too low.

Even worse - much worse - is the ignorance of many pop music so called editors, who produce written transcriptions of pop song music in the treble clef an octave too high or an octave too low! Very confusing. Moving on.

So my scale starts on middle C - C4 - the C opposite your belly button when you sit at the piano. Books on singing use different notation systems to denote octaves. Middle C can be a small c with a little 1 as superscript - the Helmholtz system, or a big C with a 4 as subscript, - The American Standards Association system. I use the latter - so middle C is C4 - low down for a female voice but fairly high up for a male voice singing at the sounding pitch. I shall use the written note - so if you are a male and if you have not already got used to it then you need to realize that you sing an octave lower than the notes written here.

Back to singing an octave in single vowels without diphthongs. The names do, re, mi, fa, so, la, ti, do are Italian labels for the notes of a major scale. They work for any note you start on as the tonic, or start of the scale. The system is called 'tonic sol fa with moveable do' and is used in the English speaking world (the Continental system is confusingly different). Starting on C gives C major, starting on D gives D major etc. (see the music theory book Taylor 1989). English speakers want to say and sing these names with diphthongs ('douuu', 'rayeee' etc. so that each note has two vowels) so it may be easier if I spell them differently 'daw', 'rair', 'mee', 'fa', 'saw', 'la', 'tee', 'daw', so you can sing them without the diphthong. Or you can just sing on 'la' for each note - la, la, la, la, la, la, la, la.

Now as a beginner you will find that you fall into one of four broad types. No Underused Register, Underused Chest, Underused Head or Has Pitching Problems.

If you are the type with No Underused Register you will find you can sing the notes in the scale reasonably easily (congratulations).

If you are Underused Chest you will find you can sing the notes in the scale but the voice sounds weak on the lower notes.

If you are Underused Head, you find that you can't sing higher than note 5 or 6 in the scale, the pitches A or B or perhaps C (we can fix that).

If you are the type Has Pitching Problems: you have a problem hitting the notes correctly - a problem 'pitching' indeed. Do not despair; this is usually fixable - I have only once failed to fix this problem in a singer. Being 'tone deaf' and staying that way despite lots of work on the problem is a rare condition.

This section is about registers so let's assume for now you are not Has Pitching Problems. If you can't hit the notes correctly I'll deal with you later in the section on Pitch (then you can come back and reread this section!)

Most beginners have an underused register.

You need to use both head and chest registers at the same time, in what is variously called a '*voix mixte*' or a '*mix*' or just 'a well produced voice' and to combine them both across most of a two octave range. A higher percentage of chest lower down and a higher percentage of head higher up.

Now I differ from many other singing teachers in my terminology. I am not happy about this, but it is the nature of the Tower of Babel of jargon in this area. In particular I differ in matters of terminology from some of the scientifically minded, serious and well respected teachers who I agree with on most other matters. In particular Donald Gray Miller (Miller 2000), Scott McCoy (McCoy 2004) and Ken Bozeman (Bozeman 2013). So I may well be wrong I suppose!

However you do need terminology to help you make sense of the voice. As a beginner, I advise you to follow my terminology until you are more advanced - I think it is straightforward and it definitely works - then

make up your own mind in the future. By then the science and the singing teaching profession may be more advanced and have settled on a common terminology, more clearly explained. I touch on these points of difference in my chapter on advanced topics.

So you need to exercise your underused register.

First underused chest people. Some men and more women. Some low voices, most high voices. Forgive my stereotype but you need to make a more 'masculine' or 'commander mode' noise. We need to add tension. Start with a shout. Be a football fan and abuse the ref. 'Get off the f**** field you f****ing tosser! Do it in private obviously. You really have to shout. If you need something more genteel but even more dramatic try my baby and plug scenario. You see a baby crawling across the floor and just about to stick its finger in an electric socket. You must stop it with the power of your voice 'Stop!!!!' The baby carries on - try harder 'STOP!!!!' That should do it. Now your voice may hurt from the shouting, but hopefully you will have used your chest voice. This is a natural thing to do is it not?

Now sing a note not too much lower than you were shouting - maybe F4 or G4 above C4 (middle C). Make it loud and shouty. You may feel a rumble in your chest if you put your fingers there. Then relax your jaw and tongue root to make the resonance do the loudness and try to keep the chest sound in the tone as you relax the tension and make the sound sweeter. Then sing down, semitone by semitone. High voices will not make much sound below middle C, but low voices can go all the way down to the G below.

Then go back to the F or G above middle C where you started and go up a semitone at a time. At some point you will 'crack' - probably the A or B- and find you can not sing higher with pure chest. Then go back to the F or G and sing with your normal head dominant sound but with more chest in the mixture. Try to keep the chest component in for a few more notes, then drop it out or it will strain your voice.

Over time you will learn to mix in more chest and make your voice richer and darker in general (as you unconsciously learn to use your thyro-aretenoid muscles to shorten and thicken the vocal folds and keep the folds together for more of each cycle). Music theatre 'belters' and opera singers use a high percentage of chest high in the voice. Many female pop singers use a high percentage of chest all the time.

Now Underused Head people. Some women and more men. Some high voices, most low voices. Again with the stereotype. You need to make a more 'feminine', 'sweeter', 'fluty' sound. We need to take out the tension. Start a semitone below where the voice wanted to 'crack' and you couldn't sing higher. Sing that note quietly with a very breathy sound 'hoooo'. Don't try to sing loudly. Let the push for the sound be small but come from below the chest - not from the throat! Don't let the throat tense up. Now try the cracking note - don't let any tension happen - just blow the note out gently and quietly 'hoooo', 'heeee'. Long quiet notes with steady expulsion of breath. Then go up a semitone and so on. You should be able to get up past what was the cracking point. With practice you will get higher (as you unconsciously learn to use your crico-aretenoid muscles in your larynx to thin stretch the vocal folds and keep the folds further apart for more of each cycle).

Passaggio

This is the name for the pitch area where the voice gets uncomfortable with the register it is on and wants to move from one register to another. You can say it is where the voice breaks. My views on this important matter differ from many other teachers (but they in turn differ from each other!). No doubt it is more complicated than I allow. One of the complications is that most other teachers treat females as different from men. I generally do not (apart from the octave difference). Another is the complication of formant tuning. This is a very important research area that I have not yet plumbed sufficiently to opine upon. Something for me to

work on! I recommend you use my descriptions to start with. It is complicated enough and it works for my students.

The main break or '*primo passaggio*' is around the written note A4 (so a sounding A3 for males). It might be G or B flat or B. This is where the pure chest voice of an untrained singer with underused head gives out and 'breaks'. Many can not sing a higher note at all. We have to fix this by bringing in head voice.

The second break or '*secondo passaggio*' is around written E5 (it could be D5 or F5). Here is where beginners can go no higher, even using head voice, and need to be gently encouraged if they want to be able to sing the classical repertoire (unless they are true basses) or the pop repertoire (if they are males). Ideally you need a teacher to help in this area but a switch to falsetto will allow freedom to pitch higher (females may find a falsetto with a scream).

A third *passaggio* is lower down - at roughly written C4 - the voice wants to switch to a pure chest register - in females called 'open chest'. The only groups for which this low area is important are classical basses and bass/baritones and pop females (who need to sing very low - they should just sing quietly and let the mic do the loudness bit).

Pitch

Singing the right pitch is a very important part of singing. Singers sing songs that have a melody on various pitches. Various errors arise. The worst is where very few pitches are correct and the melody is sung in a varying key or no key at all. This sounds terrible. It makes people laugh. If this is your problem then you may be tone deaf. This is a disability and a rare condition, known as congenital or acquired amusia. Apparently suffered by some 4 percent of the population. If you are one of these persons then this book is not for you, but on the other hand you are unlikely to be reading it! Probably best to give up the idea of singing.

Sufferers from this condition who had other talents, according to Wikipedia, were Bragg, the Nobel winning physicist, U.S. President Theodore Roosevelt, W.B. Yeats the great poet and many others.

Most people are not disabled in this way but many do make errors, singing wrong notes in the melody or some notes flat or sharp. I have often found that people who are criticized for singing in this way actually have fine, impressive voices. It's just that the voices are hard to handle. So do not be disheartened. You just have some work to do.

Pitch is partly objective and partly subjective. A lot more complex than elementary textbooks allow. Bear in mind that when we sing a note at a pitch (the fundamental) we are actually singing a chord, with dozens of notes in it and with pitches all the way up to the top of the piano keyboard and higher (see my chapter on the vocal mechanism). We hear just one fundamental note (unless we listen very carefully indeed), although some of those higher pitches are actually louder than the fundamental! That is the way the brain works.

Middle C (C4) is a pitch of 261.6 Hertz - 261.6 times per second that the wave peak passes by. Most people, especially males, speak at a lower fundamental frequency than this, around 100 to 200 Hz. The old telephone systems used till around 1980 could not transmit frequencies of less than 300 Hz. So how could people talk over the phone and still sound like people? Well it turns out that the brain reconstructs the basic pitch, the fundamental frequency, from the higher frequencies in the signal. Men sounded perfectly normal over the telephone, despite the fact that the fundamental frequency of their voice, the pitch, was not being transmitted.

You need an instrument that gives an accurate pitch to help you check. A piano is good if it is in tune, an electric keyboard is liable to be exactly correct.

Here I need to talk about '*equal temperament*' tuning. This is a method of tuning, invented in the time of J. S. Bach, that allows an instrument to sound good in all the keys. Keyboards (and guitars) are tuned to equal

temperament. Put simply this means that major thirds are very slightly sharp and minor thirds are very slightly flat. High notes are very slightly sharp and very low notes are very slightly flat. Singers and instrument players automatically get used to these differences from natural tuning and automatically compensate, so music is normally played in equal temperament tuning, but occasionally the difference can cause a problem.

You need to get used to matching a piano (or guitar) note with your voice. Some of my beginner students much prefer me to sing a note than for me to play it on the piano - they find it easier to match. But you need to work at it.

If you think you are singing a correct pitch but others do not you can try this fix; try opening the resonance space in the vocal tract - dropping the jaw so the back teeth are a finger's breadth apart, very slightly yawning so the naso-pharynx at the back of the mouth is slightly stretched, tongue root slightly out of the throat and forward in the mouth. It worked for me. My teacher would say 'Joe you are singing that note flat'. I would reply, 'I am singing the correct note!' Then, to keep my teacher happy I would fiddle about with the spaces in my mouth until I heard 'That's it!'. Then I could hear a different sound - same pitch - but now richer and stronger. I could faintly hear the higher harmonics ringing in the sound. Basically more notes in the chord. Just like the telephone - my audience was now reconstructing the note from the higher frequencies. I was just giving them more of the higher harmonics to work with.

If you are not singing the right notes in the melody you need to practice hearing and then singing the notes that are wrong. Maybe you can hear the fuzz on a recording of you singing the melody, maybe a kind friend will tell you. You need the dots. Play the two or three notes leading up to the wrong note - very slowly! Target the error note and sing - slowly. Play the piano note and check.

If you have pitching problems, you really need to get to know all the melodic intervals. It doesn't hurt for all of you to get to know the melodic

intervals either (and the harmonic intervals but only if you have time and interest.)

A harmonic interval is when two notes are played together. Singers can't do this of course (except for some strange Tuvan people!). A melodic interval is where two notes are played one after the other. This is what singers do - they sing melodic intervals one after the other to form a melody.

In the chapter on exercises is my table of possible melodic intervals within the range of an octave. Do the exercise. You need to insert your own example tunes - ones that you really know. Note they are not in any key but stand alone away from the concept of key or scale, they are just a number of semitones apart (a semitone is the smallest distance between two notes in the Western music tradition - there are 12 semitones in an octave - check with your keyboard).

When you sing an example tune, or the particular interval you are studying, you will generate a key and scale, based on the note you first sing. This may or may not be in tune with a keyboard, that should be tuned to A4 at 440 Hz. You may have sung an interval tuned to A at 423 hz or what ever. This is fine if you are singing solo and a capella but you need to get back to A at 440 - so play the first note on the keyboard and now you should be in tune with it.

Practice singing these intervals. Check with a keyboard. I find this is easy with the example tune in my head, but not without it. One of my music teachers said to me - when I was having trouble remembering intervals - 'remember - each interval has a little face'. Alas I still need the example tune. But I can remember a melody and sing it, no matter how weird, once it makes musical sense to me. I recall once attending a class on serial music (weird squeaky gate classical music of the mid twentieth century that uses all 12 notes in an octave in a particular order one after the other, over and over). As we left the class I sang the melody of the piece

we had been studying, to the astonishment of my pianist friend, a fine musician with a much better musical ear than me. We are all different.

Now work out what the interval is supposed to be when you sing the wrong note. You are not singing that interval. What interval are you singing? Probably you can't tell. The wrong note you are singing is not clear. Sing a clear note and try again to sing the right interval. Sing the wrong intervals either side of it (add and subtract a semitone).

What makes a sung note have a pitch? How do we get the larynx to open and close 261.2 times per second (or whatever). It is a matter of pressure on the larynx (sub-glottal pressure) and resistance from the vocal folds. They balance together. If you are singing flat try increasing the sub-glottal pressure but pushing more with your support muscles, if you are singing sharp try taking the pressure off by pushing less.

It is harder to change the vocal fold resistance. Try making a more breathy sound, with more air being used, or a less breathy sound with less air.

Don't keep singing the song if you can't sing the notes in tune. You don't want to practice it incorrectly. You might find that the harmony helps - you will need to play the piano chord under your wrong note. If nothing works then that particular melody is escaping you at present. Try another song.

Phrase Shaping

A *phrase* for a singer is what they sing on one breath. Most composers do not put phrase marks (slurs) over a phrase, so one has to make one's own judgement as to where to breathe. Sometimes, where the composer has decided to put a phrase mark, one still has to make one's own judgement, if the composer has been too optimistic (maybe not themselves a singer) and the phrase is too long to be sung comfortably. An example of this is the beautiful art song 'Silent Noon', to a poem of Dante Gabriel Rossetti by Ralph Vaughan Williams. You can find many performance examples on You Tube. The composer (I presume it is he rather than an editor) uses phrase marks over the vocal line throughout. They are mostly helpful in creating a beautiful tranquil mood for the silent, deep summer countryside so beautifully evoked by the poem and V-W's beautiful melody and piano harmony. One spans this text; 'deep in the sun-search'd growths the dragonfly hangs like a blue thread'. At the slow pace of the song this is too long for even the world's top singers. The 'h' on 'hangs', which needs to be strong, takes out the last of the breath and one must breathe again. I breathe before 'hangs'. It doesn't spoil the song.

The punctuation often helps - a comma or a full stop give obvious breaks where a breath can be taken.

Why does it matter where one breathes? Much depends on the style. In opera and art song long phrases are admired. It is considered a cardinal sin to breathe in the wrong place. In pop short phrases are the rule and there are no 'wrong' places to breathe. One can even breathe weirdly halfway through a word and that may be considered a good point of style. So in terms of the phrase length particularly this section is mainly relevant to classical singing. However phrase shaping as a whole is very important in all styles. A badly shaped phrase hinders communication. A well shaped phrase can add magic (more on how this happens in a later section).

First let's deal with phrase length. I recommend singers mark their breaths and the phrase lengths in pencil on the score and always sing with the marked breaths. I use a big 'V'. If you use a soft pencil, 2B or greater, you can easily rub out and change if you want to. I'll use examples that I hope everyone knows (if not then look it up on You Tube). Take Curly's song 'Oh what a beautiful mornin', that opens the show in Rodgers and Hammerstein's 1943 smash hit Broadway musical 'Oklahoma'. It is still popular on the amateur theatre circuit - you can probably get to a performance every couple of years somewhere in your area. The curtain opens on a beautiful sunny morning in the American West. Cowboy country now being shared with farmers. The handsome young cowboy Curly is visiting his girl Laury at her log cabin. We hear him start the song offstage and then come on. The song is gentle and beautiful. All the world is wonderful and vibrant with promise.

He sings 'There's a bright, golden haze on the meadow, there's a bright, golden haze on the meadow, The corn is as high as an elephant's eye, An' it looks like it's climbin' clear up to the sky, Oh what a beautiful mornin', Oh what a beautiful day, I got a beautiful feeling everything's going my way'. In my score there are no full stops in the lyrics and no breaks in the music from the initial 'There's' until we get to the end. The punctuation treats the lyrics as poetry (well it is very poetic!) and so puts capital letters for each new line, despite there not being a full stop preceding. So where do we breathe? The standard normally done is to make it six phrases, breathing at the start and then before 'The corn', 'An' it', 'Oh what', 'Oh what', 'I got'. This means the first phrase is rather long - and too difficult for many - especially with the adrenaline flowing for the singer opening the show with a solo! So split the first phrase and breathe before the second 'there's a'. No one will notice much but you will have lost a chance to show off your amazing 'breath control'. If in doubt always plan to take the extra breaths. Nobody wants to hear you struggling at the end of a phrase! But try not to breathe anywhere else or you will break the mood

of the song. There is a temptation to breathe after 'feelin', which is on a long difficult high note. Resist if you can but breathe if you must. And plan in advance.

Now phrase shaping is about more than breaths. It is much more about subtle differences in loudness and emphasis for different syllables.

This is very important but little discussed topic in the many books on singing teaching that I have read. My quotation is from a book on speech. 'Placing the stress on the wrong word can alter or at least warp the meaning' (Colson 1988 page 73).

We are talking about communication.

When we talk we emphasize different syllables to convey different meanings with the same set of words (we also use different pitches but as singers we must sing the composer's pitches). Take 'Lovely to see you'. It can be sarcastic - emphasize 'lovely', unusual - emphasize 'see' (from an ex blind person or a greeting to a person coming out of a hiding place), emphasize 'you' and what does it mean? Emphasize 'to' and you sound mad or perhaps foreign. No emphasis at all signifies boredom or depression. Etc. So a decision has to be made. The composer may have suggested what she wanted by the way she has set the text.

The problem is that in nearly all cases there is no indication of emphasis in the score. The convention is to emphasize the downbeat of a bar - the first beat - and de-emphasize the weak beat of a bar - the last beat. A singer will normally do this naturally and hope the composer has set the words with the same convention so this doesn't cause an unintended clash. Composers from the 'Classical' age (the end of the eighteenth century to the beginning of the nineteenth) were usually particular about this. When singing Mozart it is often a good idea to make this emphasis quite strongly and so acquire 'Mozartian' style. Composers who have a jazz influence - almost all pop composers, use jazz 'pushes' and 'leans' where a syllable is placed in an odd part of the bar. This requires an emphasized syllable on an

odd beat or half beat in the bar. You need to make this emphasis strongly to let the jazz work.

A phrase will normally have a loudness contour, which many composers do put in the score with 'hairpins'. < means get louder. > means get quieter. Generally, in classical music, the phrase goes up to somewhere in the middle and then down towards the end. In pop, where written hairpins are rare, the phrases often start quieter and get louder towards the end.

Finally there is the question of the most important syllable in the phrase. Many of the syllables in a phrase will be unimportant and should be de-emphasized, almost 'thrown away'. In Curly's first phrase 'There's a bright, golden haze on the meadow' the 'There's a' and 'on the ' syllables are of this type. Throw them away - don't emphasize them. Then you can sing 'bright, gold' and 'haze' slightly louder.

So at least 3 things to juggle with: the strong beat, the hairpin and the important syllable. It is complicated. If you get it right then you can make magic. A wonderful thing happens when everything is right. Your voice together with the music hits the listener's brain and goes straight to the emotion centre, bypassing the thinking part of the brain. The listener is moved to tears or laughter without thinking or knowing what has happened.

Vice versa if you get it badly wrong, emphasizing weak beats, keeping the same loudness or emphasizing unimportant syllables or missing the jazz syncopations. Awkward, dull, robotic and failing to communicate. A situation best avoided.

The Stravinsky piece 'In Memoriam Dylan Thomas' has one of the Thomas poems sung by a tenor in the middle section. Now this was Stravinsky's third language: Russian, French and now English. Perhaps English not so good. The syllable emphasis is odd, for example, 'Wild men who caught and sang the sun in flight', has 'wild' as a very short note on a weak beat and 'who' on a downbeat. Should 'wild' be thrown away and

'who' be emphasized? Not so in the poem where the emphasis is clearly on 'wild' and 'caught'. So probably not - the unacknowledged singer I hear on YouTube (perhaps the marvelous Robert Tear) goes with the poem and makes it sound good despite the difficulty - but who can tell?

This is not to say there is just one answer. Any more than there is just one way to speak a Shakespeare soliloquy. You are the artist and your creativity comes into play. Try to understand what the composer intended and then do your thing. You will never sing it the same twice anyway.

Words and Music - diction and articulation, sounding like a singer

How important are the words of a song? How important is it to sing so that the audience can hear the words? At first glance you may think this is a daft question. Of course we want the audience to hear the words.

Well just listen to a song you do not know (radio, TV, internet or live) and see if you can hear the words. My guess is that in most cases you will miss many, if not all. This is true despite the expertise of the singer and the recording studio. Sometimes, listening to opera, I can't even make out which language the singer is singing in! Listening to pop the misunderstanding of the words is notorious and often hilarious. (Taylor Swift sings 'gotta love those Starbucks lovers', Sting sings 'Sue Lawley, Sue Lawley', etc.). Sometimes this is because of the style. Opera singers have a large orchestra to get over, pop singers have their voices heavily processed. But mostly it is because the singers and record producers come down on the side of the music in the never ending battle between words and music. Music theatre singers do worry about the words. They emphasize words and (in my opinion) sometimes end up sounding harsh and ugly. A rare few singers, like crooner Frank Sinatra, do succeed in the struggle to do both.

Yes there is a battle. That's the problem. If you emphasize one you de-emphasize the other. You need to have a policy on this matter and some techniques for helping you achieve your aim. In general I advise you to start out by putting the music first. Get the voice working to produce a beautiful melody and don't worry about pronouncing the words. Once that is in place then make sure the important syllables are strongly pronounced. Then that will do in most cases. I set out some techniques below.

I do get annoyed at the opera if I can't hear the words, particularly if the sung language is English. Even more so at a recital of English art song,

where half the emotional effect is in the poem. So I am very keen on hearing the words. At a Master class session, an occasion where a student singer is being publically coached by a master singer/teacher, there is often the little scene where the audience is asked to raise their hand when they fail to hear a word. The poor singer is invariably astonished when this happens in the first sung phrase and every phrase thereafter the hands go up again! Ah well.

Nevertheless, while I recommend we do try hard to do both, for my beginners I work first to make the voice beautiful and ask the student to ignore the word communication in so doing. Beginners often find this hard to take. They want to communicate. It is more natural to make the words clear.

Making words clear is a matter of diction and articulation. Articulation is the movement of the jaw, tongue and lips to form the shapes in the mouth that cause vowels and consonants to have their particular sounds. For vowels nothing is touching. The hump of the tongue moves forward and back and up and down. A difference of a millimeter can change a vowel. For consonants something is touching something else. All of this is natural for a native speaker. The thing to be aware of is the movement from consonant to vowel or vice-versa that occurs for every syllable (almost every!). This is natural in speaking but usually not so in singing. It has to be learned. Try pairs of syllables in one of your songs. Sing very slowly and feel what happens.

There are a number of factors involved in clarity of diction. I set out my views below. As is often the case there is little science known and there are differing expert opinions.

First we need to realize that the brain does not particularly hear phonemes (consonants and vowels). This classification is invented by linguists and phoneticians. When building a machine to hear speech one has to allow for many thousands of sound unit classes - not just the fifty odd units that comprise the phonemes. These units represent diphones and

triphones - groups of two or three phonemes in all the combinations that occur in the language.

Second is the fact that the melody in speech is less wide ranging than in song. Melodic intervals that might cause ambiguity in hearing are usually not produced in speech. One of my techniques for legato in singing is to give each consonant a pitch, the pitch of the following vowel. The phoneticians, nearly all of whom do not study the phonetics of song, wouldn't agree with this (Ladefoged 1982 p168). They say that voiced consonants may have a pitch but unvoiced ones (and plosives) do not have a well defined pitch. Well my technique may not be entirely accurate, it is rough and ready, but it does work! An example occurred, as I was writing this, in a rehearsal of one of my own compositions. Here is the phrase. 'I remember'.

At first the word was lost and unclear. The singer had a beautiful voice but I had perhaps made it hard to sing clearly. I asked the singer to use my technique and the word was then clear and simultaneously more expressive. The problem was the short note for the second note in the melisma of 'mem'. The singer was leaving the 'm' consonant at the end of 'mem' on the low D and putting and the 'b' consonant at the beginning of 'ber' on the high D - a long jump. Now this is the way it is written in the convention for vocal 'underlay' - the way the words are written under notes. I asked her to put both the 'm' and the 'b' together as a diphone and to give the diphone the pitch of the following vowel on the high D.

Third is the matter of 'intention'. Beginners often have strong intention - they want to make the words understood. More expert singers control that instinct. They want to communicate, but not at the expense of good legato. Many expert singers go too far and fail to communicate in that the words

are lost. It is a difficult balancing act, but important words must be communicated or the art of the song is lost.

I nearly always start out by insisting that my students prioritize vowels and vocal line. There is no sung magic without line, or so-called legato. Indeed I prefer the term magic, as neither line nor legato describe the phenomenon well. I ask students to sing 'vowel only', leaving out the consonants. Invariably everything sounds much better. Then we put the consonants back, mostly de-emphasizing them.

Try the experiment of singing a phrase from one of your songs and minimizing the consonants on the front of each syllable. Sing each pair very slowly. For 'remember' (three syllables) the join between syllable two and three is the diphone consonant cluster 'mmmmbee'. Lips together, then suddenly apart with a little puff of air. With practice you should be able to close the lips and open them very quickly without making an 'mmmmbee' sound at all - yet your audience will hear it. Their brains will have detected the acoustic effect on the preceding and following vowels of the opening and closing of the lips. The old singing teacher term for this is 'sing on the vowels'. A good term once you know what it means.

Crudely speaking for a beginner it is normally a matter of changing articulation to de-emphasize consonants and sing on the vowels. For an advanced singer it is usually a matter of intention and re-emphasizing certain important consonants.

Style and Genre

This has to be a long chapter. Style is a complex matter. In this chapter I am using 'style' in the sense of 'genre' or type of music. There are thousands of different styles but they do fall into broad groups. Many people love one or two styles and hate and detest many others. The detestation surprises me, but it is real and can be strongly and vehemently expressed. Many people, I venture, will not even have heard of some of styles in my examples listed below. Others (like me) love great singing in every style. I encourage my students to sing in many styles. I give examples of each style that I encourage you to listen to on You Tube, that wonderful resource for singers. If my particular examples have vanished then find others by the same individuals. They are almost all by world class artists and ought to be studied by aspiring singers as examples of the highest representations of the art of singing. This is what we aim at, however far short we fall in practice. Keep your eyes on the heavens!

My examples should be easily accessible on YouTube or similar websites. Try and listen to all the examples. This may take many weeks, but there is no rush. The examples all seem beautiful and moving to me. If you do not find them so, even after several attempts at listening with good sound equipment, then so be it. The Romans had a phrase for this, '*De gustibus non est disputandum*', 'There is no use arguing matters of taste'.

If you are familiar with one or more of these styles then you will probably have other examples that you would prefer to represent the style. Sorry if I missed out your favorite! I recommend you focus on one or two of the styles that you are not familiar with and give them a chance. I don't expect you to work on them all - there are just too many. Listen to all of my examples if you can and reduce down to two or three including one more classical and one more pop if you can. Then work with those. But

generally not two styles in one day - it takes much mental and physical switching to change a vocal style.

You will probably want to focus on one or more styles in your practice, but work on one style can improve work in another. I found this for myself when I sang a Dean Martin pop ballad in an opera class. Somehow it was a big success (I had a great pianist!). I said 'But it's just crooning'. The teacher said 'Well then - croon!'

Song is like the ocean - it is immense and deep - explore!

The biggest division in styles is between classical (also called legit, serious, opera, etc) and pop (also called rock, blues, country, folk, funk, rap, contemporary etc). This big division has been there at least since the Middle Ages and probably for ever. I wrote my thesis on this major split in styles at university, when studying for my bachelor of music degree.

I was a teenager when rock and roll exploded like a supernova. I adored it. Elvis, Chuck Berry, Little Richard (and later Debbie Harry) were my gods, but my seniors looked down their noses at me. Now I am a lot older and I love opera as well, Gerald Finlay, Simon Keenlyside, Anna Netrebko and Anne-Sophie von Otter are my heroes, but many of my juniors look down their noses at me. In matters of style one can not win - somebody is always looking down their nose.

I can't discuss the whole subject here. I want to focus on singing and I need to make a few broad generalizations - please excuse me if I step on your taste. *De gustibus non est disputandum!*

The first generalization is that classical singers try to sound the same - they fail of course, they are all different, but they do have a common standard and aim. Most singing teachers, including me, have been trained in the classical style and find it relatively straightforward teaching students in this style.

Pop singers by contrast all try to sound different - they fail as well of course, but the successful ones are instantly recognizable. There is no common standard. Janis Joplin, Axl Rose, Bob Dylan, John Lennon, Chris

Martin, Adele, Rod Stewart, Katy Perry, Leonard Cohen, John Legend, Rihanna, Madonna are so, so different. Classically trained teachers find it very hard to teach pop students (many do not try!). Singing teachers who have not been classically trained (there are more and more these days and they are very common on You Tube) find it easier to teach pop students, though they tend not to teach them to sound like Rod Stewart! But they find it very difficult to teach classical students.

I was classically trained by many wonderful teachers over a fifteen year period. Most of my singing has been classical and semi-classical (opera, art song, oratorio and music theatre), though I have sung many pop ballads and some hard rock with guitar bands. I teach beginners to sing using classical techniques. When they have found their voice I encourage them to sing a variety of styles. I am very happy working on pop songs and helping my student to copy the style of the performer on the record (very educational) before working on their own style.

The big difference is the microphone.

Classical and pop singing developed without microphones and electronic amplification. The only amplification was in the singer's own vocal tract. A classical singer has to fill the hall with the sound of the voice, getting over the top of the instrumental accompaniment, be it a mere piano or perhaps a 100 piece orchestra. Power is definitely needed! A vocal teaching tradition of 500 years or so gradually developed. Italians were very influential. The teaching method was called 'bel canto', or beautiful singing. We still use this method in one way or another.

With the advent of the microphone (around 1920 or so) everything changed. The pop singers took enthusiastically to the new tool and used mics, the classical singers did not. Pop singers no longer needed power to make themselves heard in the frequently poor acoustics they sang in (like night clubs with low ceilings and people eating and drinking). Dropping this part of the vocal function they found themselves able to do many other things with their voices - they crooned and whispered. Bing Crosby could

sing 'White Christmas' in a baritone low croon and fill the hall he was singing in with the sound of his beautiful voice. Billie Holliday could sing 'Strange Fruit' in a delicately evocative whisper and chill the blood of her audience among the fug of drinkers in the club.

Then the newly developing recording industry changed pop a lot more. The singer sang in a booth in a studio to a basic track played through headphones. Then the producer added and subtracted from the vocal sound and manufactured a new sound to combine with instrumental tracks. In the early days the equipment was primitive, but each new advance was eagerly used. Now EQ, reverb, double tracking and a whole host of hardware and software plug-ins with fancy names (like *desser!*) are available. Nowadays a pop record can be highly artificial, which makes it tricky for the pop singer singing live in a concert if they are trying to reproduce the record. I watched Katy Perry recently in a big concert live on TV. A huge hall and massive stage effects. A great performance; she danced like mad and kept on singing. But one could hear the prerecorded backing tracks and the backing singers that kept it all together and were there when she gasped for breath.

The use of amplification for singing has given rise to a new term CCM (Contemporary Commercial Music), which can be used instead of the word 'pop'. It means music which is expected to be performed with amplified singing. You don't necessarily need to be amplified to do it and it may sound better live if you are not!

Richard Middleton has written helpfully on Rock singing, for example, pointing out one big style difference between classical and pop - 'individuality of voice quality tends to be at a premium'. (Richard Middleton, 2000 p28).

So let's look at a boiled down range of twelve different singing styles or genres. I start with the extreme at one end of the classical/pop spectrum and then progress through to the other end of the spectrum : opera, Lieder and art song, choirs for oratorio and church, music theatre old style - these

normally sung without mics and amplification. Then those normally sung with mics and amplification, the CCM music: music theatre new style, country and folk, blues and soul, middle of the road crooners, R and B and Rock n Roll, basic pop, soft rock and prog rock and, finally, hard rock.

These styles all have a history. Many start in one decade and fade in another. A '*canon*' is created - a repertoire of a few outstandingly good songs that remain popular when the style itself fades and becomes a minority sport. The canon of songs remains - a repertoire that singers cherish.

Opera started in the seventeenth century around 1610 and flourished during the nineteenth, then slowly faded and is now a minority sport. It has a canon of a few dozen arias and ensembles that are performed over and over.

Lieder or 'art song' started in the nineteenth century around 1810 and flourished till the twentieth century and the advent of radio and record player. The canon is maybe several hundred or so wonderful songs (many more have been composed but are rarely sung - it is worth exploring for a rarity but you are unlikely to stumble across a wonderful song).

Church choir music goes back to the Middle Ages and Oratorio was big in the nineteenth century. The canon stretches over this time period but most works are well known. Church music since the advent of pop has spawned another style, with mics and guitars, used by the more evangelical groups.

Old style music theatre goes back to the late nineteenth century and faded after the middle of the twentieth century. The canon is small - of the thousands of shows and songs produced only a few dozen marvelous examples survive.

New style music theatre started around 1950 or so and is still thriving. The canon is still small - only a couple of dozen or so- but still developing.

Country and folk style goes back to the seventeenth century or so and is still developing - rather a lot lumped together in one category. There is a large canon.

Blues and soul has roots in slavery in the USA but became a popular style in the nineteen twenties and now has more or less faded and merged with basic pop. The canon is quite small.

MOR (middle of the road) crooners flourished in the 1930s to the 1950s (the Great American Songbook) and created a medium sized canon of wonderful songs.

R and B and Rock n Roll lasted just a few years - from the 1950s to the 1960s - a small canon of wonderful songs.

Basic pop, as I term the style, is still developing - it is today's music - thousands of sub styles and songs from the 1960s to the present day. A large canon indeed - many thousands - who knows all the great pop songs? Time has not yet whittled them down to a surviving few.

Soft rock, progressive rock and hard rock were both big in the 1970s and 1980s and have left a smallish canon as they dwindle.

What will tomorrow bring?

Of course I realize that all of the above history is my own oversimplified and over generalized categorization. You could argue with any number of items. Do feel free!

But the categorization seems to me to be useful to the beginner, as a way of imparting a sense of the music history of song. You can find books discussing each of the styles, which I urge you to read if you have time, but none to my knowledge discussing them all as a whole.

Many objectives are common across the whole range of styles - vocal beauty or vocal expressivity, authentic expression of the text, emotional communication of the character and circumstances of the role, musicality with pitch, rhythm and phrase shaping etc. I focus on the objectives peculiar to the style.

Opera

True opera singers are rare beasts. Many people have beautiful voices but few can sing as loud as is needed for major opera houses like the Metropolitan Opera in New York, or the Royal Opera House in London's Covent Garden. Indeed in my opinion many of the people that do sing there are not loud enough. I recently went to Covent Garden to see the last opera of the great twentieth century Czech composer, Leos Janáček, 'From the House of the Dead'. The singers could be heard, but did not fill the hall with their sound. I am not a big fan of the big opera houses. At several thousand seats they are simply too large for unamplified voices. In my opinion opera sounds much better in small theatres. Of course it is hopelessly uneconomic in a small theatre, so professional companies don't use them. Amateur companies do however. I greatly enjoy opera productions in small theatres where one can get the thrill of a voice filling the space and see the actors faces as they act. I shall long remember a stunning soprano high C that raised the hairs on the back of my neck, or the last scene of Puccini's 'La Boheme' with Mimi dying front of stage and letting her face go slack, so that I wept hot tears for the sadness of it all. Both of these in the little Electric Theatre in Guildford with 200 seats.

It is a wonderful art with much very beautiful and emotional music. In my view all beginners should have a go at singing opera arias. It is great for vocal development. You only have to sing loud enough to fill the room you are in. You need to pick a voice type - high or low. It may be obvious to you but most of us are in the middle - you should try both and delay the final assignment as long as possible. Probably whichever you pick the high notes will be too high for you - just put them down an octave, sing falsetto or leave them out. Possibly you will need to be singing in Italian - see my chapter on singing in foreign languages. I'm not suggesting you need to perform them in public (though do so by all means if you get the chance), but learn one or two, sing with a large orchestra backing track and record yourself. Lots of fun and very educational.

If you are a young singer, say under 18 for a female or 20 for a male you need to be a bit careful so as not to damage your voice. See the chapter on vocal health. But operatic arias are not as bad for young voices as musicals new style or hard rock, with or without a mic!

The objective peculiar to this style is loudness without shouting or wobbling. Many professional singers fail to reach this objective and end up shouting (so-called 'park and bark' style), sliding up to notes and wobbling. A real opera voice does not sound good in a small room - it sounds harsh and makes your ears ring! Together with the poor sound quality of most playback devices (radios, records on non hifi equipment etc) these faults are responsible for the fact that many people dislike opera style. I dislike the shouting, sliding, harshness and wobbling as much as anybody. Who lets the singers get away with it?

Jerome Hines, offers this very helpful advice, which I mention again. 'The real secret of singing in the big halls is to tease the hall into singing with you'. (Jerome Hines 1997 p126).

My examples are free from these faults. One or more examples for each of the eight principal operatic voice types. There are many subtle subdivisions of these types but I need to keep it simple. You can explore further if opera is your thing. I have left out Wagner arias and Dramatic Soprano - best left alone for a beginner or you will be shouting and wobbling soon enough!

Of course opera (like music theatre) is about more than the singing and the music - acting, lighting, costume and the drama (Wagner's 'Gesamtkunstwerk' - a piece with all the arts involved) all come into play to make a well performed piece moving and thrilling.

Coloratura Soprano.

Natalie Dessay - 'Chacun le sait' from Donizetti's La Fille du Regiment. (Live ORF2 Vienna 2007)

Kathleen Kim - 'I am the wife of Mao Tse-Ting' from John Adams 'Nixon in China'. Metropolitan Opera 2011. A wonderful modern opera by a living composer! Some might say this is a dramatic soprano aria!

Lyric Soprano.

Mirella Freni singing 'Signore ascolta' from Puccini's Turandot. (1965 CD remastered, Orchestra del Teatro del' Opera, Roma under Franco Ferraris). Not a live performance but what a voice!

Here are the first two phrases and the last three phrases (not two as written!) of this beautiful aria, beautifully sung. The exhausted slave girl Liu begs for mercy.

The first phrase ('sir listen!') Hear the beautiful legato, the soft 't'. Then the expressive breath before the second phrase.

The last phrases at the end - 'Liu can't bear it anymore, oh for pity's sake!') go high in the voice. Hear the first 'n' on the pitch of the high A flat (no scooping!), the join of the 'n' with the 'r', the naturalness of the low G flat on '-ge', the break for breath after the 'ah' (despite the slur in the score asking for no breath - the singer is the star and does what she needs to do), the portamento up to the last note, the high B flat, not a scoop but an expressive device, the slight vowel change on the 'ta', making it brighter.

Listen to other great singers sing this aria and see how they differ and which is your favourite.

Patricia Racette singing 'The Embroidery Aria' from Britten's Peter Grimes. Possibly from the Royal Opera, Stockholm broadcast on PBS, or perhaps the Metropolitan Opera 2006 under Donald Runicles.

Here are the first two and the last two phrases of this difficult but very moving aria in a beautiful performance. Ellen Orford reacts to the discovery on the beach of the embroidered sweater she gave to Peter Grimes' young boy apprentice, now presumed dead.

The singer takes both of the early two phrases in one breath, making it into one phrase. Britten was meticulous in his markings. Would he have

minded? Perhaps the singer was warming up for the later longer phrases. The last phrases are very hard. It comes after top B flats sung pianissimo (very quietly) and it itself marked the same with a three ppp marking. The composer has not written any phase marks. The singer breaks after 'clue', getting set for the last note, the low B natural, taken in a strong female chest voice. A range for the aria of just over two octaves. It is quiet but not pianissimo and the orchestra is rather swamped. But this is live singing with excellent acting.

Check out the many other excellent performances available on YouTube, many with just voice and piano.

Christine Schäfer - Lulu by Alban Berg live from Glyndebourne, the LSO under Andrew Davies 1996. A DVD - sung in German (with French subtitles in this clip). One of the few operas remaining in the regular repertoire that were composed in the 'squeaky gate' style that was so dominant from roughly 1930 to 1960 and which nearly killed classical music. This is the whole of act 3. The music is an acquired taste but Schäfer is perfectly cast.

Dramatic Soprano.

I don't list any in this category. You may look and find arias by Birgit Nilsson, Kirsten Flagstad, Jessye Norman etc. Not good roles for beginners.

Lyric Mezzo-soprano.

Anne Sofie von Otter - the Seguidilla from Bizet's Carmen. Live from Glyndebourne 2002 with the LSO under Philippe Jordan. In French (perfect diction!) with Czech subtitles in this clip.

Dramatic Mezzo-soprano.

Olga Borodina - 'Mon coeur s'ouvre a ta voix' from Saint-Saëns's Samson et Delilah. Milan 2002 under Gary Bertini. French with Italian subtitles in this RAI 5 TV broadcast clip and Domingo as a bonus.

Lyric Tenor.

Luciano Pavarotti - 'Nessun Dorma' from Puccini's Turandot. The credit is LPO under Zubin Mehta, but I'm not sure about that. The audience in this gala event just love it!

Lyric Baritone.

Thomas Hampson - 'Di Provenza il Mar il Suol' from Verdi's La Traviata. Marvellous singing from my hero in this uncredited production with Spanish subtitles. Also take a look at Thomas Hampson 'How not to fail at Opera' for words of wisdom. Also check out his excellent masterclasses.

James Maddalena - 'News, news' from John Adam's 'Nixon in China'. Houston Grand Opera 1987 under John DeMain.

Charakter/Buffo Bass-Baritone.

Bryn Terfel - Madamina from Mozart's Don Giovanni. Scottish Chamber Orchestras under Charles MacKerras 2006. Not live but very fine. The live production from Ferrara has poor audio.

Lyric Bass.

Jerome Hines - The Grand Inquisitor scene from Verdi's Don Carlos. DVD from the 1980 TV broadcast from the Metropolitan opera.

Lieder and art song

This style, once widespread when every middle class household had a piano in the sitting room (basically the long nineteenth century from the end of Napoleon to the end of the Kaiser), is now moribund, little known to the general public and only has a small (though fanatical) audience of aficionados. Probably the least known style with the smallest audience. It is very well known to classical singers. My beginner students mostly have not come across it.

I regret this decline, because singing art song is possible for all singers and brings great rewards. It is easy to arrange a concert. You just need a hall with a piano, a good accompanist and one singer. The audience will

love it if you are any good at all. Perhaps it will reemerge from the shadows and become popular again.

However, it is not yet dead. Aficionados like my wife and I go to the Wigmore Hall in London, the world's finest hall for the style, with 500 seats and a beautiful acoustic, to hear the world's best singing art songs in recital. I hope it will come back again in more general public recognition and popularity. It is so beneficial to singers to sing in this style. Invariably audiences love it.

The characteristic of this style is for a singer to sing words set by the composer to a poem, with piano accompaniment.

The objectives important for this style are beauty of voice and line, with clarity of diction and good characterization of the role and emotions depicted in the poem and the song. These are good objectives for any style and make art song a very good style for the beginner to study.

Unlike for opera there are no particular voice types. Anybody can sing anything. If the original key is too high then choose a lower key version. If it was written for a young woman to sing nobody (well almost nobody) minds if it is sung by an old man.

This style is always a duet between the singer and the pianist. The better the pianist the better will the singer sound. I recall an occasion when we in the audience at a Master class were marveling at a young woman's wonderful performance when singing an art song. We knew of her barely average ability - what had happened? 'Ah' said the Master, 'Look who is playing the piano'. The young man had just won an award as the best young accompanist in the country! As well as my examples below you can see the large number of videos of live performances in good concert halls with good pianos from graduating recitals of young singers at American colleges. This is a treasure trove of art song performances. Alas many are somewhat spoiled by poor accompanists and by the decision to keep the lid of the piano down - a persistent delusion among pianists and singers that raising the lid makes the piano louder, when in fact it makes the pianist

able to produce a bigger range of dynamics with a clear rather than muddy sound, softer and louder. My own experience in this was confirmed to me by the late Geoffrey Parsons, at that time perhaps the finest accompanist in the world. He should know. But still the delusion persists.

Another excellent insight from the great Mr Parsons was the need for the accompanist to get quieter when the singer sings and then louder when the singer is not singing. Half bar by half bar. Obvious really - but very rarely marked like that in the score. The composer would have had to put in so many dynamic marks for the odd half-bar and few bother. The accompanist should just do it. So few accompanists know this or do it. You can point it out to any that do not - very gently of course!

The art song composer needs a great poem to set. There once was a belief among some people, that the song was better with a poor poem. In my view they must have been people of poor taste - but hey - *de gustibus non est disputandum!* The great lyric poetic literature of a country has influenced the composers of each country.

Franz Schubert was the first great Lieder composer. He wrote more than 600 in his short life. He was Austrian and spoke German, hence the name for the style is the 'Lied' (German for song). Great German poets abounded in the nineteenth century (Heine, Goethe etc). The French name is 'melodie'. French poetry also flowered in this period (Verlaine, Baudelaire etc.) The Italians were not prominent in this style and produced little art song. When Italians want to give a recital with just voice and piano they use Arie Antique, settings of early music arias for piano from long forgotten operas of the seventeenth and eighteenth centuries - beautiful and useful songs but not set to great poetry (by and large). The English and Americans have no special name - hence the rather vague 'art' song, but they do have, of course, a wonderful canon of poetry (Wordsworth, Browning, Elizabeth Barrett Browning, Coleridge, Keats, Tennyson, Hardy, Christina Rossetti, Walt Whitman, Emily Dickinson, W. H. Auden, Yeats etc. the list goes on - not to mention Shakespeare!).

My few examples from the large repertoire of songs in this style are from some of the main composers setting poems in German, French and English.

In German.

Schubert Twenty-four songs of 'Winterreise', setting Müller. Baritone Dietrich Fischer-Dieskau and Alfred Brendel.

Mezzo-soprano Brigitte Fassbender and Wolfram Rieger.

'Gretchen am Spinnrade', setting Goethe. Mezzo-soprano Bernarda Fink and Gerold Huber.

Schumann Sixteen songs of 'Dichterliebe', setting Heine. Tenor Fritz Wunderlich and Hubert Giesen.

Brahms 'Von Ewig Liebe', setting Hoffmann von Fallersleben. Baritone Simon Keenlyside and Malcolm Martineau. 2009 recording.

Mahler Baritone Thomas Hampson with Wolfgang Rieger setting Von Arnim and Brentano. Live concert from the Théâtre Musical de Paris - Châtelet 2002. Lots of Mahler including 'Des Knaben Wunderhorn'. Hampson is one of the world's best artists for both opera and Lieder. Here he is projecting without amplification (I think!) into a medium sized opera house (the mic is for the recording which is not too well done - not what the audience would hear). He is in closeup - the audience would not see his wide gestures but you can observe what is needed to project.

Hugo Wolf Six songs setting Goethe. Soprano Dawn Upshaw with Margo Garrett 1990. Live but alas no video from this superb singer. One of the few who can crossover to pop with complete success.

Richard Strauss. 'Allerseelen' setting Hermann von Gilm. Soprano Jessie Norman and Geoffrey Parsons.

In French.

Faure 'Après un rêve'. Setting Baudelaire. Soprano Veronique Gens and Roger Vignoles.

Ravel 'Histoire naturelles' setting Jules Renard. Baritone Gerard Souzay with Dalton Baldwin. Alas no video from this famous French exponent of the art of singing melodie.

Baritone Simon Keenlyside with Malcom Martineau from 2008. Also no video but I had to include Ravel, Keenlyside and Martineau - all my favourites.

Poulenc Nine songs of 'Tel jour telle nuit' setting Eluard. Baritone Francois Le Roux and Pascal Rogé.

There is a wonderful canon of French 'melodie' Do explore further, Debussy, Chausson, Duparc, Berlioz and many others.

In English.

Ralph Vaughn-Williams. 8 songs of 'Songs of Travel' setting Robert Louis Stevenson. Choose from the hundreds of examples of this popular song cycle for baritone and piano on YouTube.

Butterworth. Six songs from 'A Shropshire Lad' setting Housman. Baritone Sir Thomas Allen and Geoffrey Parsons.

Ivor Gurney. 'Sleep' setting John Fletcher. Mezzo-soprano Dame Sarah Connolly and Eugene Asti.

Tenor Ian Bostridge and Julius Drake.

Gerald Finzi. 'The Clock of the Years'. Live from the Royal College of Music 2017. Baritone Kieran Rayner and Lucy Colquhoun.

John Ireland. 'Sea Fever' setting John Masefield. Baritone Roderick Williams and Julius Drake live from the Leeds Lieder Festival April 2013. Here are the first phrase and the last phrase of this well-known song, sung by all classical baritones.

The superb singer makes completely natural sounds, nothing artificial - a very modern and welcome style in my view. Hear how clear the words are! 'Sweet dream', with the long fermata (pause) on 'dream', the slight swell and then drop on 'over' beautifully handled. The presence of one of the world's finest accompanists of course adds to the overall effect.

Benjamin Britten. Five songs 'On this Island' setting W.H. Auden. Soprano Barbara Bonney and Malcolm Martineau.

Four 'Cabaret Songs' setting W.H. Auden. Soprano Christine Brewer and Roger Vignoles.

'Songs and Proverbs of William Blake' setting Blake. Baritone Benjamin Luxon and David Willison.

Michael Head 'A Blackbird Singing' setting Francis Ledwidge. Soprano Jasmin J. White and unknown accompanist. Live video from the Schmidt Youth Vocal competition 2010 - sung when she was sixteen years old. Beautifully sung. Shame the piano lid was down creating a lumpy accompaniment. Art song lives in these vocal competitions!

Samuel Barber. 'Hermit Songs' setting his own found poems. Soprano Leontyne Price and Samuel Barber.

Oratorio and church choirs

This style is widespread and well-known, though it is still the case that most of my beginner students have not practiced it. They are, after all, beginners! For the most part the texts are religious. Traditionally mics and amplification are not used, though that is changing. I advise everybody to spend some time singing with a choir and to enjoy singing a variety of great music repertoire while working at getting solo roles.

The style is similar to that of opera, but the need for loudness is less. Generally there is no need for memorization as the custom is to hold the sheet music or score. Most of the performance places are much smaller than opera theatres, with better acoustics: namely churches. Often the choral director will have a view on the style of singing. Sometimes this is helpful, but alas it is often not so. However if you ignore them they are unlikely to notice. I include here also art song with orchestra, where the score is not used by the singer. If you ever get a chance to perform a solo with orchestra then take it. It is a wonderful experience.

My too few examples are some of the many different types of choir and a too brief selection of some important composers. Do explore widely yourself and find material you really admire.

Thomas Tallis. 'If ye love me'. English Chamber Choir under Guy Protheroe.

Johann Sebastian Bach. 'Mass in B Minor'. From the Proms 2012. The English Concert under Harry Bicket

George Friedrich Handel. 'Messiah'. Choir of King's College Cambridge and Academy of Ancient Music under Stephen Cleobury.

Mozart 'Exultate jubilate'. Renee Fleming with New York Philharmonic under Kurt Masur live 1997.

A beautiful voice singing this well-known and difficult piece.

Brahms. 'In stiller Nacht'. Brussels Chamber Choir under Helen Cassano.

Verdi 'Libera me' and 'Dies Irae' from the Requiem. Soprano Angel Gheorghiu live Berlin 2001 with the Berlin Philharmonic under Claudio Abbado and the Swedish Radio Chorus.

Quality singing and playing of this dramatic Verdi oratorio.

Leos Janacek. 'Glagolitic Mass'. Czech choir of Brno and Berlin Philharmonic under Sir Simon Rattle.

Richard Strauss 'Four last songs', Christine Brewer under Jiri Belolavek live at the Proms 2008.

Eric Whitacre. 'Lux Arumque'. Flemish Radio Choir under Eric Whitacre.

Music theatre old style (operetta and Broadway)

The old style goes back to the music halls of the nineteenth century (at least). Old style turned gradually into new style around about the 1970s.

Opera style is used but with more speech like quality and less emphasis on loudness, the theatres generally are smaller.

Old style music theatre still flourishes and is the best vehicle for beginners to get performance experience, either singing in the chorus or getting a principal role. I am fortunate to be living in what I call the world capital of amateur dramatics, in Surrey, England. Within a driving range of an hour there are dozens of societies putting on shows of this repertoire in little theatres. I could go to a show almost every night of the year. My students have plenty to choose from.

My examples are from some of the most popular composers in this genre.

Gilbert and Sullivan. 'HMS Pinafore'. Opera Australia 2005, Director Stuart Maunder.

Offenbach. 'La Vie Parisienne'. Trinity College of Music Opera Group 1984.

Richard Rogers and Oscar Hammerstein III. 'Oklahoma'. University of North Carolina School of the Arts.

Lerner and Lowe. 'My Fair Lady'. Movie clips.

Music theatre new style

The style changed dramatically as mics and amplification began to be used, pit orchestras got smaller and were also amplified. Composers followed the current pop music fashion and the music got a lot louder with more of a pop beat. The change happened first in the professional theatre and the amateurs followed the fashion ten or so years later. Now almost every show has the principals with little radio mics stuck somewhere about their persons. Even in the top professional venues, where a sound engineer is now an added necessity, the mics and loudspeakers were not 'hifi'. In the amateur theatre the sound reproduction quality, provided by cheap equipment, was often very poor. The audience received loud sounds with lots of sharp attack at certain wavelengths and heavy bass.

Desirable voice quality changed dramatically. 'Belt' and 'twang' came in, with strong nasality and harsh tone.

I am not a fan of this style change. I love many of the great songs in this style, but not the way they are often professionally presented. I have a theory that many sound engineers have lost some of their hearing through too much exposure to loud sounds in clubs and pop concerts. Yes really! I was warned about this danger when studying for a music degree many years ago.

Most people, however, find the new style attractive. The top shows in London and New York run for years and years with large appreciative audiences. But it is also true that most people also enjoy performances of the songs sung with a more 'bel canto' voice quality and no mic or amplification.

My examples are from some of the main composers and the top performers of these superb and iconic songs.

Andrew Lloyd Webber, Hart and Stilgoe. From 'The Phantom of the Opera' The title song sung by Sierra Boggess and Ramin Karimloo. BRIT Awards 2012.

Boublil and Schönberg. From 'Miss Saigon', Lea Salonga sings 'The Movie in my Mind'.

Stephen Schwartz. From 'Wicked', Idina Menzel sings 'Defying Gravity'. Live with the Kitchener-Waterloo Symphony under Marvin Hamlisch 2012.

Here are the first phrase and the penultimate phrase from this marvellous but difficult song, sung by the singer who made the role famous on Broadway, this time without the black hat, green makeup and fifteen foot hoist into the air. Here the singer knows that the whole audience knows the song, so there is less drama at the beginning than is needed in the show. The first phrase is quiet and exploratory, the accent is on 'changed' as a push before the beat. The vocal effort is very little and very natural, the mic does all the work. It is almost speech. The penultimate phrase is delivered loudly with great vocal effort in a high 'belt' register, a real big finish. The notes, though not at all high for a soprano voice in

opera style or 'legit' style, are at the very top of the range for belt. The singer skips the fermata (pause) on the E flat (making it a short shout) but delivers the maximum on the long D flat. The close camera shows the jaw and mouth held tensely for the vowel.

Tim Minchin. From 'Matilda the Musical', 'Naughty' sung by various Matildas live at the Olivier Awards 2013.

Modern Country/ Folk/Singer songwriter

The home of modern country singing is Nashville. It is a predominantly 'poor white' style. Americans of the working class. Influenced by English folk song from the early settler days. A norm has grown up around much of this repertoire, of singing in a very nasal voice. Perhaps this is an imitation of the rural American accents that might have been used historically. Diction is very important, to put across the major element of the style - the story of the song - very often a witty history with a twist. Every singer should attempt this style. Somewhere in the great range of songs is one that will suit your voice and character. The songs are often well known and appreciated by a wide audience. They mostly work well in versions for just voice and piano, or guitar and voice. Often they are not easy. Often the unusual nature of the song, with a wide range and large jumps in the vocal line, is what made it famous in the first place. The great majority are American and need to be sung with at least a mid Atlantic accent, or they will sound strange.

There is also a long history of English folk song (and Irish, Scottish and Welsh), going back to the seventeenth century or earlier. If you hear these sung in a pub by a folk singer they will often be sung in a nasal voice. This time in a rural English accent. But this is not essential. These melodies were largely not written down but passed down the generations of performers by listening only. They were collected and written down by people like Cecil Sharp and Ralph Vaughan-Williams in the early

twentieth century, just in time before all the old singers passed away. These songs, by contrast to the modern American songs, are often much simpler and easier to sing, often without any instrumental accompaniment (known as 'a capella'). My students often take singing exams, which usually have a requirement for an unaccompanied song. So we get to unearth these lovely old English songs again.

They mostly use 'modal' melodies and scales - neither major nor minor scale but different scales like Dorian, Aolian, Mixolydian etc. Oddly these scales are now used by many rock and pop songs - the modern 'folk' music.

Patsy Cline. 'Crazy'. Live on Grand ole Opry.

Dolly Parton. 'Nine to Five'. Live 1980.

Bob Dylan. 'Mr. Tambourine Man'. Live Newport Folk Festival 1964.

Joni Mitchell. 'Big yellow taxi' and 'Both Sides Now'. BBC 1969.

Here is the wonderful singer-songwriter with two of her best songs. Note her unusual yodel switch from a high heady register to a chest register (on 'lot'). It adds to the effect. Most modern pop singers don't sing this high. They stay in the largely chest register. Her lyrics are superb - and her diction in singing them - one can hear every word - yet there is still legato and singing tone. She lets the mic do the work.

Billy Joel 'And so it goes' - live Grammy Legends concert 1989?

Christy-Lyn. 'Green Bushes'. Unaccompanied English folk song 2012.

Blues and Soul (and Swing and Jazz)

This is essentially a style of the African American. Created out of slavery and oppression and moderating into soul around the second world war. All my examples are sung by African Americans. The blues aspects of the style were much imitated by white English singers in the sixties, who changed the mood and merged it with rock music. Do you need to be African American to sing these songs? Of course not! But if you are not you will need to adopt the right degree of the correct accent or it will sound

strange. Too much accent and it will be a caricature. A tricky balance. Typically the men sing high and the women low. Perhaps this is the origin of the current similar fashion in basic pop. The earlier songs, the old blues, are fairly easy, though they need gutsy singing. But after the first world war the songs rapidly became much harder and are now real tests of vocal dexterity and agility. Vocal beauty is required for the many current versions of the style, more soul than blues, with smoothness and legato. Many singers in this style manage to produce a very attractive 'honeyed' sound, with lots of breathy head voice, singing softly and using the mic to make the sound louder. The style has greatly influenced and merged with current basic pop. Vocal 'melisma' is a big part of the style. Some singers sing 'every note in the scale' as decorations of the vocal melody. This habit dates back to the opera singers of the seventeenth century! No doubt done for the same reason - it makes the singer look good! But beware excess in this respect. It will not sound good.

Swing and Jazz perhaps ought to have its own style box (or three or four style boxes!) but I have included it here. The essence is the rhythmic shift from the normal 'square' pattern. Jazz style in some degree now permeates almost all current basic pop. Essentially placing an accent on the 'wrong' beat - either too early (a push) or too late (a drag) - see my chapter on phrase shaping.

Billie Holliday. 'Strange Fruit'. Live 1959.

Sam Cooke. 'Twistin the Night Away'. Live on TV 1963.

Ella Fitzgerald. Live with Duke Ellington in Milan 1966. Two jazz greats together in concert. I am not a fan of the 'scat' singing but nobody does it better.

Aretha Franklin. 'I say a little prayer'. Live October 9th, 1970.

Stevie Wonder. Live concert from Musikladen 1974.

Marvin Gaye. Fifteen songs live in Amsterdam 1976.

Barry White. Whole concert live from Belgium (Vevo).

Middle of the Road/Crooners

This style is excellent for beginners to practice. It is all about the voice, rather than the instrumental backing. The style is not too far from 'bel canto'. Mics are used for theatres but need not be for smaller halls. Vocal beauty, smoothness and naturalness are a part of the style.

Frank Sinatra. 'You make me feel so young'. Live at the Royal Festival Hall 1962. A great role model to imitate. Here is Frank showing his great jazz influence. Every word clear as a bell. I see his shoulders rise as he breathes - not good - but hey this is Frank Sinatra - maybe he had a late night!

Dean Martin. 'Sway', song 3 on Greatest hits part 1 - Nostalgic Music Channel 2016.

Here is the first phrase and one from the middle - the high point. Dino sings in his beautifully produced relaxed baritone. Smooth legato throughout. The high phrase well handled - seemingly effortless on 'weak' but nevertheless passionate. He lets the mic do the work. A great singer. One of my favorites.

Barbara Streisand. 'The way we were'. Live 1975.

Bing Crosby. 'Now you have jazz'. Live on Norwegian TV 1977. He was long past his best in 1977 and you can no doubt find more beautiful singing from earlier in his career (do check out more from this superb singer), but here, in this intimate setting of a small concert in a faraway place, you can see the energy and jazz influence in his strong delivery.

Celine Dion. 'I'm alive'. Live in Las Vegas 2007.

Whitney Houston. 'I will always love you'. Live 1999. A master class in handling registers for effect. Much of the song is in a rich chest/belt but she flips often to a head/falsetto. Her delivery of the long high 'I' in a beautiful rich high chest/belt is my goto example for tongue position!

George Michael. 'I can't make you love me'. Live MTV unplugged - is this 1992. Plenty of vocal beauty and smoothness here. Sweet head voice all the way. A master of letting the mic do the work. He is singing very quietly, yet it comes over much amplified and with added reverb. We are hearing a skillfully electronically assisted and amplified sound (I don't know what the word 'unplugged' is referring to!). I would love to hear him with no amplification in my studio - it might be even more beautiful - but who knows?

The song was sung first by Bonnie Raitt and published in B flat, but I hear George singing here in E minor, which suits his tenor voice. Here is the first phrase.

Rhythm and Blues and Rock and Roll

This music style, which came from America with a thunderclap and much lightning around 1953 or so was short lived, but is still popular and has greatly influenced popular music. I see all my examples are male, but females should feel free to sing this style too. The main characteristic of the style is energy. Singing a song in the style will allow you to develop that desirable quality in your singing: and should also be a lot of fun! The singers in the examples below punctuate the words percussively but maintain a good legato though the shouts and hollers (except perhaps Jerry Lee!).

Howlin Wolf. 'Smokestack Lightnin'. Live 1964 with Chris Barber.

Elvis Presley. 'Heartbreak Hotel'. Live on TV around 1956.

Jerry Lee Lewis. 'Great Balls of Fire'. Live on Saturday night Beechbut show on TV Feb 14th 1958.

Chuck Berry. 'Maybellene'. Live 1958

Little Richard. 'Lucille'. Live 1957

Buddy Holly and the Crickets. 'Maybe Baby'.

Basic pop

The songs of today - composed and recorded in our lifetimes by living (or recently deceased) artists - downloaded by twenty-first century fans. This is by far the most popular style of all (hence the name I suppose). Billions of fans and tens of billions of dollars. You are probably a fan already. I certainly am and have been for many years. The best songs from this style stand artistic comparison with any. My guess is they will stand the test of time and endure well into the future.

The top stars are all different. So different that it is hard to put them into one single style of singing. Fans will split pop into many dozens of different styles. One could argue, such is the importance of the distinctiveness of the individual, that there are as many styles as there are artists. I have to limit my categorization, so I lump them all together, though there is enough material for a big book on just this style!

The girls especially have to look good and, mostly, they have to dance. The top songs sung by the top singers have something extra special. The voice is only part of the appeal. Much of it is the composition and instrumentation of the song, often composed by the singers themselves. Much of it is the acting performance with costume, lights and dancing.

Even more of it is the increasingly heavy processing of the sound of the voice by the sound engineers and producers. I have to point out to my students that they will not sound like the record unless they spend zillions on technical processing and production. Though it is possible to buy low cost mics and electronic boxes to add a bit of the effect.

The '*canon*' of basic pop, the songs in the repertoire, are numbered in many thousands since the style started - let us say roughly in 1970, so it is now fifty years old. This is a much, much bigger repertoire than any of the other styles. When my student wants to learn a song from this style I ask

them to choose their favorite and provide the sheet music. This artist may well be new to me. They may well not have heard of the offerings I make.

This is a selection of my favorites from the hundreds I could have chosen, designed to illustrate a range of styles within basic pop - you will no doubt have your own selection.

Blondie with Debbie Harry. 'Fan Mail'. From a live concert on MusikLaden Extra 1977 - aired 19th January 1978.

Debbie Harry sings with a beautiful classical bel canto sound but keeps it completely natural and varies it with dramatic effects, shouting and snarling, so it doesn't sound like opera but fits the pseudo punk rock style Blondie do so well. No 'belt' here but a rich, resonant mix of chest and head. Here are the opening phrase of the song, which she splits into two phrases, with a tiny breath after 'hand' and the last phrase, again split into two, with a breath before 'ringing', where she changes the vowel on 'ing' into 'aaa' and adds a bit of a snarl on the end of the long note, dramatizing the madness induced by the bells (more so on the record).

Michael Jackson. 'Billie Jean'. Live first time moonwalk. Motown 25th Anniversary from the Pasadena Civic Auditorium 1983.

You can see how Michael's outstanding performance lit up the audience. Much of the appeal of course is in the music and the dance, but his special vocal qualities are definitely a part of the legend he became. Here are the first two phrases of the song.

His vocal style is hard to categorize with the usual terminology. He speaks in a high head voice. Then sings in a heady low tenor with an unusual staccato/legato and extreme naturalness. Very speech-like with short vowels rather than a singer's long vowels but not speech. It all flows beautifully. Gasps, panting and squeaks which fit very well with his energetic dancing, conveying breathlessness without his actually being out of breath. A great style to imitate but hard to bring off. First one needs to get the jazz. Feel the accented third beat of the first bar on 'more' and the

second on 'mov'. Similarly for 'mind' and now 'do' and 'I' as pushes before the beat. Ultimate funk.

Elton John. 'Saturday'. Live from the Royal Opera House Covent Garden 2002

Kylie Minogue. 'Can't get you out of my head'. Live Brit Awards 2002.

Rihanna. 'Where have you been'. Live plus recorded voice. American Idol Season 11 Finale 2012.

Jessie J. 'Price tag'. Live on Jools Holland 2010.

Katy Perry. 'Roar'. Live Prismatic world tour. 'I kissed a girl'. Live on Hot n Cold (live on Letterman) 2014.

A really catchy and perfectly fashioned pop song from a tremendous performer. Here is the hook in the chorus - two phrases that just work perfectly together. Supposedly the song is in A minor but I hear a melody in E Phrygian. Lots of jazz in the rhythm with the pushes ahead of the beat on 'liked' and 'chap'. Note the brief switch to falsetto for the high E in 'just want to try you on'. A great song to try - not difficult to sing but need lots of acting to make it funny. Should be easy to find or make or get your mates to play a backing track - just a few chords and drums with the right beat.

Ed Sheeran. 'Thinking out loud'. Live Glastonbury 2014.

Soft rock and Progressive Rock

This style was popular in the 70s and 80s, when the bands were known as groups, with the singer just a member of the band. The music was a group effort and relied less on the singing. If the singer left the band another could be found. Those that have survived can still pack stadiums around the world and some have been formed more recently. I have picked

out a few with more emphasis on the singer. Some of the songs are good to try in piano arrangements. If you can get to sing with a full instrumental lineup then go for it.

Yes with Jon Anderson. Live concert at the Rainbow 1972.

Fleetwood Mac with Stevie Nicks. 'Rhiannon', Live 1976. Her distinctive voice meant that the band had to have her solo. Such an interesting voice. With such a strong chesty belt she should have worn it out but lo she still goes on at 70 years old (unlike Janis Joplin, who was clearly an influence). This is a good song to try whatever voice you have. Your version will be your own. Try and invest it with the same passion at the climax.

The Police with Sting. Live 'Roxanne'. Live 'Reeling in the Years' archive from Pink Pop The Netherlands 1979. Such a distinctive voice and a great singing artist. Here is the first phrase of the song. How does he sing so high? It's not falsetto and also not a *bel canto* tenor - probably using 'twang'. To me his voice is held and somewhat constricted. He gets away with it. Just a natural talent! It makes my throat ache listening to him. I wouldn't advise a beginner to try. Put the song down a third or so and then enjoy it.

You can hear him on TED in 2014 talking and singing about songwriting. A completely different style - contemporary folk song. His voice all frayed out, the bloom gone from years of high pressure high notes, but still putting the song over with crisp diction.

Dire Straights with Mark Knopfler . 'Money for Nothing' Live from Wembley Arena July 10th 1985. Knopfler is a marvel. He half sings. No *bel canto* here, yet there is beautiful legato and the character of the song is beautiful portrayed. At times the band sing high harmonies - one can't have a whole song with just this gruff baritone *sprechstimme* (speaking singing). Singing is a big tent, all types of voice and style in the service of the music.

Steely Dan with Donald Fagan. 'Do it again', 'Rikki don't lose that number' and more. Live at University of California 1974. My published

copy of the music is in the wrong octave! Some of the people producing the written out arrangements of the music are ignorant of the octave transposition for male voices in the tenor clef, that allows men and women to sing off the same hymn sheet. Try to sing this in the written version I have and you will sound like a Russian bear with big boots! Try the song - maybe you can get a pianist to play the chords - not difficult to sing better than Donald Fagan and Walter Becker. What is the magic that makes the song so good?

Hard rock.

This is a very difficult style for beginners to attempt. The style requires harsh vocalizations that are not good for voices. Alas many of my young students, especially the men, really want to sing in this style. I talk about letting the mic do the work. I also say that, in my opinion, most of the impression the song makes is down to the instruments and the antics of the front man (or more rarely woman) - less so to the particular vocal qualities of the singer. The life style led by many of the singers was also not good for their lives.

Janis Joplin. 'Ball and Chain'. Live at Woodstock 1969.

Richard Middleton is helpful on Rock singing style (Middleton R. 2000). He is more of a musicologist than a singing teacher but his views are incisive, particularly his comments on Janis Joplin's style, 'lyrics... disappear into streams of fragmentary emotive outpourings, lacerating shrieks and strangulated moans. The characteristic timbre at these moments is of nails on flesh.... the focus almost always ends up on the worn-raw vocal chords of hard-living passionate victimhood.... blues catharsis - self protecting 'distance' giving way to self-centered expressionistic angst is altogether a defining quality of hard rock'

Led Zeppelin with Robert Plant. 'Black Dog'. Live video. 1970 approx.

Guns n' Roses with Axl Rose. 'Knockin on Heaven's Door'. Live in Tokyo 1992.

Axl Rose is a good example of saving the voice. He sings a normal baritone for much of the song and only at the last breaks out into a high scream! Very wise.

So I have covered twelve broad styles of singing, some of which are commonly presented on radio and television and others only rarely. What will the scene be like in fifty years from now?

Performing

**producers, directors, conductors, sound engineers, stage managers,
wardrobe, the audience.**

I encourage my students to perform. Often they enjoy the lessons and the practice but are reluctant to get on stage and deliver for an audience. I gently encourage them by inviting them to perform in one of my master class type concerts, where my students sing a couple of songs for a small audience of fellow students and perhaps a few friends and relations. I work with each student to improve the singing of the song. Everybody benefits from watching another be coached and the coachee gets a little stronger in performing skills.

Then I suggest they join a singing group - either a choir or an operatic society, or maybe a band looking for a backing singer. There is a large choice of such organizations locally. Once joined they can audition for solo roles.

Unless you are just giving a performance on your own you will need to work with a bunch of assorted types who have power over you and will likely try to tell you what to do.....

I have worked with over 40 directors. I learned something from all of them. Perhaps the very best I worked with was Richard Gregson, who often worked at Covent Garden. He was quiet and self effacing, but so helpful. Once I was singing the role of Timur, the blind old king in Puccini's opera 'Turandot'. I plaintively complained to Richard. 'I can't sing like a decrepit old man - it won't be powerful enough'. He said just two words, 'King Lear!' Of course. I was instantly transformed! Now that's the way to do it! Another time I was singing the title role in Verdi's 'Nabucco'. Richard gave me an entrance to die for. At the crucial moment I opened a door at the back centre of the stage. Lit strongly from behind with a bloody

severed head dangling from my hand. Most of my dramatic work done before I opened my mouth!

If your director is like this then you are lucky. If you are not so lucky the director may appear to have a peculiar inability to understand the drama or the music of the show. You have a choice to make - you can argue and defend your ideas, or you can just shut up and do what you are told. I have done both. I once made a director cry - I'm not proud of that, actually rather ashamed, I apologized profusely. One director made me so angry that I had to drop out of the performance - I was frightened that I would get sent to prison for assault! My strong advice to you is to do as you are told and be calm. If you can possibly do it. Enjoy the privilege of a good opportunity. When you are on stage you can do as you please. It is then too late for the director to interfere. On the other hand your fellow actors and singers will not want strange unrehearsed activity!

On the other hand you need to look after yourself. A large percentage of directors (and actors) are not at all safety conscious. The stage is a dangerous place. Even more dangerous when one of the actors gets fired up with emotion. I recall one soprano who threw a knife somebody had given her hard across the stage so that it stuck in the floor and quivered. Could have been fatal! I won't go on stage if somebody has a real knife - give them a rubber one!

On the other hand it can be fun doing violent things, having stage fights and physical encounters, spectacular falls and so on. One has to trust one's fellow actors and hope for the best.

Conductors are generally a different breed. In my experience they look for calm competence and for you to sing as and when they wield the stick. I generally feel very grateful for support from the pit and a conductor in control of the music (sometimes not the case alas). If you want a slightly different tempo or a slight pause for breath they can often be made to listen sympathetically. They don't want a fight for control so that the band have

to decide whether to follow you or their conductor's baton. On the other hand I have never worked under Toscanini or Karajan!

If the director and the conductor have had a hand in casting you they should be keen to keep you happy so that you can deliver the goods for which they cast you.

Sound engineers are generally somewhat deaf. Yes really. Too much exposure to overloud sounds has damaged their hearing. They want to make the music overloud for the audience. Some even want to be a performer instead of a technician - sitting at a board twiddling the loudness knob - usually to make quieter my forte phrases or make louder my piano phrases. Horrible. One of the joys of singing with a mic. I am lucky in that most mic and loudspeaker setups (and mostly they are pretty cheap affairs) somewhat flatter my voice. More depressing is when the opposite occurs and I hear the beautiful voice of one of my students with the beauty removed. I advise my students to sing very quietly in the sound check, when the technician is setting the levels. One can always then boost one's loudness as and when needed - while avoiding too much boom. All completely different at the top level of course.

Stage managers vary greatly. Some are having fun and are pleasantly helpful. Others think they are the stars and are rude and unhelpful. One just has to manage if they hit you with furniture when changing a scene, place your chair the wrong way round or in the wrong spot so that the curtain drops smack on your head instead of behind you. Very painful.

Wardrobe people are important too. You need to be nice to them so they give you a costume that fits or put in the effort to help you with a quick change in the wings! I recall my difficulty in one show playing a god high up on the mountain Olympus, with a long white robe that entangled my feet so I that I had to hold it with one hand while climbing a long ladder with the other. Quick switch from rung to rung as I let go with my hand and clutched the next rung with the same hand! The poor wardrobe

lady had been a bit overwhelmed with the work and had no time to get me fitted with safety pins.

But sometimes it all works out well. When I did the very busy role of Fred Graham, in 'Kiss me Kate', I was stretched to my limit. Wardrobe gave me a personal dresser and a little space for my quick changes. She saved my life. I bought her a bottle of whisky at the end of the run.

On the other hand if you are not happy in your costume you should speak up. You need to feel comfortable to perform at your best.

The audience

It is true that audiences are all different. One has to get the measure of an audience early on in the performance. I love performing to an audience. I treat them with great respect and I teach my students to become aware of the subtle emanations that tell you what the audience is thinking.

One is always nervous to some extent before stepping out on to the stage. When you are inexperienced it can be terrifying. You just need to get used to it by doing it - then it ceases to be such a problem. I arrange 'platform concerts' for my students to give them a feel for an audience - no teaching from me, just performing a couple of songs, in a concert with fellow students, to an audience of a few parents and friends. The first time you do it your legs wobble. The wobble moves upwards, to your pelvis and then your stomach - you hope it doesn't reach your larynx! The audience wants you to do well and they send out waves of support and encouragement. At the end you receive a round of enthusiastic applause. Then it's all over till the next time.

Perhaps the best way to teach about responding to the audience is to give some examples from my experience. I hope that somewhere in these experiences is one that will ring a bell and shed a little light - excuse my mixed metaphor but that is the thing about audiences - they are all different.

I teach people to open themselves to the audience and invite them in. Adopt a defenseless pose and give yourself up. This is a good posture for the voice - no tension. If there is a stage light then get in it until you are blinded - then they can see your face and every expression. Then you can communicate.

I don't wear my glasses on stage, although I need them for driving as I am a little short sighted. So the audience can see my eyes - are they not the windows of the soul?

With a small audience of less than 200 or so (and no amplification) I somehow notice if one member of the audience - perhaps someone right at the back - is not paying attention. I don't know how I do this. Some glimpse of a gesture perhaps. I then attempt to make that person pay attention to the tone of my voice, the words I sing, the look in my eye, or the gesture I make. Just for a moment - then the moment is gone.

With a large audience - up to a 1000 or so (and no amplification) - I can't see them all but I need to include them all. I include them all in my vocal and gestural spread, which needs to be much larger than life - as does my voice! It is a great thrill when the connection happens and they are all paying attention. I lose myself in a golden haze - part of my brain is ensuring that I don't fall off the stage and can still remember the opening words of the next phrase, but most of it is in cloud cuckoo land.

With amplification things are rather different - I listen to the loudspeaker sound echoing out in the room and make it work for my benefit. I can't contact the audience in the same way. We will not reach a temporary Nirvana. So I just enjoy myself and do my best.

In the theatre the first night audience, however small, is there to support you. The connection is immediate, once they know you are going to deliver the goods. At the end they will cheer. The Friday night audience starts off being hard work - business people home from a hard week. After the interval they have had a drink and then let their hair down and have a good time. Any smutty innuendos in the lyrics can be played up in a more

adult way. The matinee audience is mostly old people and a few children - one needs to go slow and deliberate. They enjoy themselves but more quietly.

Most performances are average. One has done a good job. The audience is happy. All very satisfactory.

Some few are not good. I try to forget those - and now I am trying to remember one! I can recall waiters and waitresses clearing up plates and cutlery and not paying attention despite my efforts. Best avoid such situations.

Sometimes things go extremely well. On rare occasions one hits the spot just right and the audience go wild, yelling their enthusiasm and obviously greatly moved. Moments to be remembered. I try to analyze afterwards to learn and perhaps make it happen again soon! A combination of the right acoustic - a hall with good resonance, a good song a good audience and some indefinable magic in the performance.

Sometimes things go wrong, but that is usually a bonus. It makes for a good performance if one responds freely without tension - lightning fast so that the world seems to go in slow motion. On one occasion the conductor dropped his music and dropped down to the floor to pick it up - I was about to start my aria - I didn't wait for him - fortunately neither did the orchestra - they just followed me! On another occasion the recorded sound didn't play at the start before the curtain opened. I had worked on the recording before the show opened, doing the lower voice part of a duet. I stepped forward and somehow improvised both parts, including the high lying tenor which had notes above my highest! One is 'in the moment' and joyful things happen. Great fun!

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Exercises

The warm up

At the start of your practice session, or before you do a performance, you need to warm up. In lessons with my students I keep the warm up as short as possible, around 5 - 10 minutes for those that know the routine well. I advise you to take as long as you want in the time available to you. This is my routine.

First the physical. Unless you have just been running, or come from a gym session, you will probably not be sufficiently physically warmed up to sing. Singing is a physical activity and requires a heightened level of alertness and metabolism. I have not seen any scientific evidence for it but I suspect one uses way more calories per minute than when sitting in an armchair. We don't want stiffness and tension but the blood needs to be up, the muscles alert and responsive, the eyes bright and the cheeks slightly flushed.

a. Hold your hands above your head (in the 'handsup' position) and mentally turn into a singer. Let your jaw drop and become slack (yawn if you feel like it) and feel your belly muscles tighten up a little. For many people (especially those no longer in the first flush of youth) this is the opposite of what they spend most of the day doing (tense jaw and slack belly!)

b. Squat down and then stand up lifting an imaginary barbell over your head like a weightlifter, breathe in deep and low in the body to take the weight and push the breath out strongly as you lift. Do three of these.

c. Jump in the air seven times, swinging your arms inwards and up in a big circle. Take off and land on your toes. This should be a graceful, gentle move like a ballet dancer - no jarring.

d. The recoil breath. Put the fingertips of both hands on your belly, just around the belly button. You are going to feel the muscles flex.

Puff air out on a 'zhhhh' for 4 notes in a particular rhythm, allow your breath to come in very quickly and repeat over and over (maybe 5 or 7 times). The music shows the rhythm for two times. The three little notes are staccato, the long one legato but strong. Your breath will be used up, your belly will go in a little. There is very little time before you do it again - I have not put any rests in before the repetition.. Don't think about breathing. The breath will be taken in a quick reflex - you will feel the muscles recoil out sharply.

Next the vocal warm up.

We need to warm up both the little muscles of the larynx and the many strong support muscles in the ribs and abdomen.

This is to be done all in one breath - 10 notes in one breath. Just five notes from a major scale going up and then coming down - 1,2,3,4,5 5,4,3,2,1. The music shows D major - starting on D). The repeated note on 5 (here shown as the second A), that starts the third bar, can be done with a little push from the support muscles low down in the abdomen. I show the exercise here with a sung 'ahhh' vowel. This should be preceded with a hum on 'mmm' - close the lips and feel the buzz on the lips and a hum on 'nnnn' - feel the buzz just behind the nose. Then move up a key - say to E major starting on E and repeat. And so on as high as you can while still making a good sound on the top note. The high notes will come with practice over time. Don't try too hard or you may damage your voice. No

need to go higher than when, after 8 repetitions, you reach the E an octave above, (or F or G if you are a high voice).

You can also try doing the exercise on 'maaa', with a 'm' preceding each note and also on 'Naw' (like 'gnaw' for a bone), with a 'n' preceding an 'aw' vowel. The consonants should be pitched on the same note as the following vowel. 'Meee', 'neee' are also good. Feel different resonance areas come into play.

Try other consonant and vowel combinations as well if you have time - any you care to choose. Each will have something to teach you - 'looo', 'dair', 'fur', etc.

You need to aim at an evenness of sound from top to bottom. There will need to be changes in your 'mix' of chest and head register as you go up the scale. Try to have at least some head in the mix on the lowest note and a little chest in the mix on the highest note, with a roughly fifty fifty mix halfway up. Work to keep the mouth movements light and springy as you go from the consonant to the vowel. For example, with 'm' the two lips must part quickly, without tension in the lips or jaw.

So if you have done the above you should be warmed up and ready to sing within a few minutes.

But what if you are performing in public? If you have a dressing room you can warm up there. If not there may be a bathroom or toilet for the artists and you can try warming up there. I don't do this. Someone may be needing the space for its proper purpose! Instead I use a technique that also works for the oratorio situation. This is where one is stuck on stage for a long time prior to singing, while other items are performed. This is a tricky situation. One's voice has cooled down and one is tense with anticipation (or sleepy with lethargy!).

The technique is to blow air silently through closed teeth and lips. A long, slow, silent 'shhhh'. Ten seconds or so. Then a slow deep breath and repeat. This warms up the support muscles and wakes up the body,

reducing tension (or increasing alertness). Done quietly nobody should notice.

Breathing and Support

Belly breathing.

a. Put the finger tips of both hands on your belly either side of your belly button. Push in with the fingers a little. You are going to feel the muscles underneath as they contract and relax. Keep your finger tips in contact throughout this exercise.

b. Breathe in. You should feel your belly go out a little. If it does then that's fine. We can move on. If it does not then we have to do a little work. What you need to do is relax the muscles of the lower abdomen so the descending diaphragm muscle can squash the abdominal contents of stomach and intestines and push the belly out a little. If the muscles of the lower abdomen are tight then very little squashing can occur. You can try making these muscles very tight and see for yourself. Now try relaxing those muscles and getting the outward push of the belly under your fingertips.

Some people can't get used to the belly going out a little when breathing in. They can try lying on their back on the floor with a heavy book on their belly - make the book rise when you breath in and lower when you breathe out.

c. Blow the air out long and slow. You can purse your lips for 'fffff' (with bottom lip against top incisors) or use tongue and teeth for 'sssss'. Any non stopped consonant will do but these two 'voiceless sibilants' are best. See how long you can make the outward breath last. You need 7-10 seconds as a minimum. The air gap through which the sound is pushed needs to be very small, so the resistance is strong. Feel the slow inward movement of your fingertips as the abdominal muscles gently tighten up

and do the pushing. You want to feel your fingertips almost touch your backbone in the last seconds.

d. Breathe in again and this time, after the inspiration of the inward breath, expel the air by singing a long vowel on a comfortable note in the middle of your range. Any vowel will do. Try and get to 7 - 10 seconds. Maybe you can do 12 - 15 seconds. Feel the strength you get from the 'support' of the abdominal muscles. Your voice may well sound a lot better.

Ribs breathing.

a. Put the tips of your fingers on your lower ribs at the side. You are going to feel the movement of the ribs. Forget about what happens with your belly. Let it do whatever.

b. Breathe in so that your ribs expand sideways (they will expand all round but focus on the sideways movement). You should feel this sideways stretch. Look in the mirror and see it - small but definite. Not a raise of the chest in front.

c. Sing a long note. Unlike with the belly we want the ribs to stay out sideways. Think of pushing them sideways to resist the inwards move. You should do 7 - 10 seconds. This sideways push (you will be using muscles in the ribs) can give you delicate control of support. Your sound should be better.

Back breathing.

a. Put your thumbs on your hips and your fingers touching together around your lower back. You are going to feel an expansion under your fingers that will push the hands apart a little.

b. Breathe in to where your hands are - breathe into your back. There are no lungs there of course but it feels as though there are. If you don't feel anything you need to relax your pelvis. Try bending the knees and swinging your pelvis forward as though you were on a swing, or as though

you were riding a horse and rising at the trot, or as though you were Elvis Presley ('Elvis the Pelvis').

c. Sing pushing up along a line from your lowest backbone up through your chest. You should feel the strength of the singing, which will impart a strong tone. This is the slowest breath but gives the strongest support.

These three breaths should be practiced separately, with a mental focus on each. In actuality all three are intimately connected and everything works together.

Slow and fast inspiration and expiration exercises.

Singers don't breathe for oxygen like runners but to get breath to sing with. Breathing for singing is unnatural. You need to get used to it. Often the inspiration, the breathing in, is fast but it can be very slow. The expiration, the breathing out, is usually slow - as the whole phrase is sung on one breath - but can be sometimes practiced as fast with advantage. I use an analogy - think of singing a song like diving into a swimming pool and swimming the whole length under water, then coming up for a breath, then swimming back under water, and so on for the whole song. Each time the pool may be of a different length as each sung phrase may be a different length!

Practice breathing in very slowly. Maybe you can get up to 10 seconds. Try it with all 3 breaths at once, belly, ribs and back. Feel the expansion all round your body (perhaps like a big rubber tire wrapped around your waist.).

Make a constriction with your lips and teeth and practice letting the air out very slowly. Maybe you can get up to 20 seconds. At some point you will need oxygen! Feel the support muscles working.

Practice the following exercise - breathe in after each note. You'll need to take very little breath or you will not be able to get rid of it. Feel how the muscles 'recoil' to bring air in fast.

Try it without breathing after each note. In this case lots will be going on with your larynx doing a 'glottal' as it stops the sound and starts it again. You can try differing amounts of 'attack' (the way you start the sound) - very hard and percussive (don't do too much of this!), the opposite, soft and very breathy or in the middle, just right and beautiful, in the 'Goldilocks' zone.

Practice at different speeds, slow, medium and fast and with different vowels (use the 5 we share with Italian or any that take your fancy).



Resonance

The sound exiting the vocal folds of the larynx is a quiet buzz. It is transformed by the resonances of the spaces in the vocal tract and can then be loud enough to fill a large hall across the top of a hundred piece orchestra. So where are these resonance spaces? This exercise will help you find them. I keep it simple and say there are three main spaces (if you want to get complicated you could find many more).

The first is the mouth. Sing a long 'aaaa' at a comfortable pitch for your voice - not too low - round about the G or A above written middle C for females (sounding an octave below for males). Try to sing for at least 5 seconds. Now we shall add more mouth resonance and see if we can make it sound better. Put your fingers up to your cheeks and push in gently, while opening your jaw at the back so as to have your back teeth a fingers breadth apart, as you can feel with your fingers. Relax your biting muscles. You can feel these muscles at the sides of your jaw at the back. Relax your

tongue at the root at the back. You have now adopted a good singers posture. You may think of being drunk or very slack jaw stupid (doh!). Try singing again and making the mouth space resonate with the sound. It should sound a lot richer, deeper, louder.

The second space is the throat, which is full with the root of your tongue. You can see how thick the tongue root is by seeing a lamb or calf tongue on a butchers' slab. You need to put the front tip of your tongue behind your bottom front teeth and let the rest of your tongue roll out of your mouth like a carpet. Use a mirror to see that it really comes forward. Now sing and make the throat space resonate the sound. Again it should sound a lot richer, deeper, louder, but also somewhat different.

The third space is a little harder to find. It feels like it is partly in the mouth just behind the nose, where the hard palate arches upwards, and partly in the nasal passages. If you make a sneering expression the little muscles at the side of your nose stretch and help you focus on this space. Sing again with a sneer and put the sound in your nose. Make a nasal sound. You should produce a thinner, cutting sound. This may be harsh but you can soften it.

Hopefully this will work for you. If not then keep exploring with finding spaces in your vocal tract. We are all different - your spaces may well feel different to those I have described.

You can try speaking and resonating in each space. I use imitations of the speeches of famous people from my youth. Sir Winston Churchill for mouth resonance, one of his early wartime speeches, *'We shall fight in the hills, we shall never surrender'*, Sir John Gielgud, the actor, for throat resonance, from Prospero's farewell in Shakespeare's *'The Tempest'*, *'And thence retire me to my Milan, where every third thought shall be my grave'*, and Field Marshal Bernard Montgomery for nasal resonance, before D Day, *'We have been fighting the Germans a long time now. A very long time. I expect like me you are beginning to get a bit tired of it... beginning to feel it's about time we finished the thing off!'*

You can find your own models. A singer needs to be an actor. Imitating other voices is a good exercise. Exaggerate as much as you can, speak slowly and ponderously and make a rich plummy sound. Then try singing a note with the same setup.

Ventriloquism and vowel only work for vowel awareness

The tongue is in three parts (in my simplified anatomy). Front tip, middle hump and rear root. Put the tip behind the bottom front teeth.

Stand in front of a mirror and sing a long 'aaaaah' and then a long 'eeeeeh' without a break. Then go back and forth between these two vowels with no break between vowels. What is making the vowel change? It is the tongue as you will discover if you stop your mouth and jaw moving.

The idea is that there should be no movement of the jaw or mouth at all. Just let the tongue move to change the vowel - nothing else. Not easy for some people, but do persist until you have got it. You can see in the mirror if the jaw or the lips move. Relax the biting muscles, relax the muscles around the lips. If necessary give up and try again another time. You are achieving independence of the tongue and realizing that it is the tongue which makes the vowel.

Of all the vowels the 'aaaa' is one of the most 'back' and the most 'open'. For 'aaaa' the hump is back in the mouth and away from the top of the mouth. 'eeeeeh' is one of the most 'fronted' and most 'closed'. The hump is towards the front of the mouth and high up, almost touching the top of the mouth. These terms from phonetics refer to the hump in the middle of the tongue.

Sing these vowels and for both vowels make the tongue more fronted and more open than normal. You should be able to see the tongue rolling out of the mouth like a carpet. Pop singer Whitney Houston, now alas no longer with us, had a great video of her singing 'I will always love you',

from a film (visible on YouTube). She demonstrates this carpet effect with her excellent tongue position as the camera focuses in on her mouth when she sings a long, high 'and I'.

You should hear a richer sound. This is a long way from speech. If you were to speak with these tongue positions you would likely bite your tongue.

Sing all the vowels you can think of in this ventriloquist manner and feel the tiny movements of your tongue as you go from one to the other. Do them in pairs and flip flop between the two.

Try the singers five. The 'long' vowels. Those that English shares with Italian. Here they are with an 'h' on the front and another consonant on the end, so that you know which vowel to sing. But don't sing any consonants.

'heed', 'haired', 'hard', 'hawed', 'hoot'. You will need to try hard to stay in ventriloquism mode for the 'oo' and not round your lips.

Try the five 'short' English vowels.

'bit', 'bat', 'bot' (in an upper class British English accent - I don't think this vowel exists in American English), 'bet', 'but'.

Try a 'reduced', or 'schwa' vowel - usually short as on the end of 'mother', but here long.

'fur'

Try some diphthongs - feel the tongue move when you decide to let the vowel change. You will find it hard to stop the tongue moving off the first vowel - your brain knows how to do a diphthong in speech! The first vowel in a diphthong is very similar to a long vowel but not exactly so.

'hear', 'boy', 'ice', 'rare', 'stoat', 'play'.

Sing your song 'vowels only'. Some find this very hard, but it is very important and you should persist if you possibly can. Go very slow! Try just the first two syllables, practice the vowel for each, then practice singing just those two syllables with no break between. Then just one phrase, then two phrases and progress from there. Work up very slowly.

It's good for you! Forget about keeping in time - take as long as you need for each note. No consonants - just vowels! Try in 'ventriloquist' mode, with no movement from lips or jaw, and then more normally, letting the lips and tongue move as they will.

Once you have experienced tongue independence and practiced it then for the most part just forget about the tongue and be natural! Hopefully your work with vowels only will allow you to focus on the vowels as you sing naturally, so that you will sound like a singer singing a melody and not someone half speaking.

Pure vowels and standard accents

Singing teachers use the term 'pure' vowels and encourage singers to use them, rather than the vowels they are singing naturally. What do they mean by this? In my view it is a matter of two concerns. First is the subject of accent. Vowels differ considerably according to the accent being used. Second is the beauty of a vowel. Does it sound rich, sonorous and attractive or pinched, cramped and unattractive?

In reality there is a standard accepted accent for classical singing in English and another standard accepted accent for singing pop. The standards are not narrow but fairly broad, with acceptable margins and many exceptions, but nevertheless the standard is there. Try singing a classical song with a strong accent that is far from the standard and see the effect on an audience. I once essayed a Michael Head song called 'Limehouse Reach' in a Limehouse accent. Limehouse is a district by the Docks in the East End of London. I happened to be familiar with the accent of the people depicted in the song (and the way the accent had changed over the generations). They were people of the working class - Cockneys. I could do the accent very well. My attempt at the song met with a stony silence. Puzzling and unacceptable to the audience.

Try the same with a pop song. How about singing Presley's 'Heartbreak Hotel' in an upper class English gentleman's accent? Horrendously comical! Quite unacceptable unless you are doing a comic cabaret.

The standard for classical singing is approximately and very broadly the contemporary educated British accent known as 'received pronunciation' or RP. It used to be called BBC English, but that description is inaccurate these days. The standard for Americans is to modify their natural accents to sound authentically American but still 'educated'. Old fashioned singing teachers still teach old fashioned accents, that died out a hundred years ago and one can hear the odd sounds their pupils make as a result.

Accent modification required of students depends on the original accent. If from New York they need to drop much of the nasalization of vowels and rhotasization of the 'r' consonant. If from the South they drop many of their diphthongs. Indians often have to work on the 'v' consonant. Chinese on the 'r' and 'l' consonants and on plosive final consonants. Northern English have to not flatten the 'a' vowel in 'bath'. And so on for thousands of small matters across the many thousands of accents in English.

The standard for pop singing is broader in that there are several standard accents. Each for a different style. The accent is a major part of the style and needs to be strictly adhered to. 'Mid Atlantic' for musicals, many ballad styles and much basic pop, 'Nashville' for country (it doesn't sound right without those elongated diphthongs), some rough variety of 'African American' for soul, blues, and much modern basic pop.

So you have to change your accent depending on what you sing. Listen to good examples and copy them.

Whatever the accent the vowels should be attractive. Do the 'messa di voce' exercise and make them so. Love the vowels as you sing. Move your tongue and jaw to give the vowel a shine and luster.

Consonants

This is not a book on phonetics, but it will help you to have a basic understanding of how consonants are formed. Use yourself as the subject and do exercises with consonants. Remember that in my teaching all consonants must have a pitch - the pitch of the following vowel. How do you form consonants in your own mouth?

Consonants are formed when something in the mouth is touching (vowels when nothing is touching).

One group are the sibilants and fricatives 'sss', 'zzz', 'zh'. Sing a long note on these (one by one). Where is the touching in your mouth? Sing a five note scale - do re mi fa so - feel how the setup changes slightly. Try flipping from 'unvoiced' 'sss' to 'voiced' (either of the others).

Another group are the nasals, 'nnn', 'mmm', 'ng'. They are called nasals because air goes through the nose rather than the mouth. You can do long hums on single notes or scales. Good for warming up.

Other groups are the approximants, 'lll', 'w', 'r'. Also good for exercises.

The final group are the stops - six in number - three 'voiced' and three 'unvoiced' - 'b', 'd', 'g' and 'p', 't', 'k'. They can not be lengthened at all. Try them all and feel how the tongue moves for each.

The above is not exhaustive: there are more consonants.

The exercise is to sing a long note on a consonant (other than stops), then a scale on a consonant and then to make up nonsense phrases with consonant/vowel pairs (or take one from a song you are studying) and sing it slowly (on one note or with melodic intervals), feeling how the tongue moves around, how it is different when the notes get high and how the lips and tongue move when going from consonant to vowel and back to consonant. Try making up diphones and triphones (two or three consonants together) and putting those in with vowels.

Exercise for Melodic intervals

Ideally you should learn to sing all the melodic intervals in an octave upwards and downwards. Some 24 different intervals in all. You may not achieve the ideal, few people do, but it is good practice to try a few, either as part of a vocal warm up or as an intellectual exercise in connection with a song you are learning.

Here is a table of melodic intervals with associated songs. The syllables with the interval are underlined. There is a column for the name of the interval and another column with the number of semitones in the interval. I find the semitones column more helpful - it is very mechanical and logical and has nothing to do with key or scale. Use your keyboard to play a note, count the specified number of semitones up or down (a semitone is the smallest interval possible on a keyboard) and play the second note. Now sing the first note and then the second note. You have sung the required melodic interval. Now play the first note again - use it as the first underlined note in the table - sing it and then the second note, which should be the second underlined note in the table. Then try playing a note and singing both underlined notes. Finally play a note and sing the second underlined note. Very impressive!

Advanced singers often become very good at 'sight singing'. This is the ability to read the music of a song and sing the melody straight away without help from another instrument. Session singers, who get paid for working on recording sessions, need to be good at this skill. Many advanced singers pride themselves on the ability. Conductors like singers to have the skill as it saves rehearsal time. I admire those who have the skill but I am not a fan of using it. I believe it spoils the singing voice, by cramping it and closing it down. I can hear this when people are sight singing. So I do not suggest work on melodic intervals specifically to help you sight sing, but rather to help you with any pitch problems in your

songs and to give you some vocal exercise. When you have the interval in your head practice singing it with nonsense syllables- ‘voodaw’, ‘yairree’, ‘lingah’. Make up your own and sing them slowly, letting the tongue move gently but swiftly over the consonants. Get used to the movements your tongue makes from consonant to vowel and vowel to consonant.

Hopefully many of these songs will be very familiar to you, already available as melodies in your memory. If not you need to find your own songs - ones that work for you.

This is the last of my exercises chapter. Other books on singing have many more. You can find thousands of different exercises by searching the literature or online. I am not a fan of learning lots of new exercises - stick to a few and practice them.

I have not included any exercises for agility- singing lots of notes quickly in odd patterns. Once more I am not a fan. I think it is not good for a beginner’s voice to jump about.

However I do make an exception for one group of exercises: those from an Italian singing master of hundred and fifty years ago - one Nicola Vaccai. His little book of 15 exercises called *'Metodo pratico de canto'* has stood the test of time. Each takes a different musical element to work in a practice. The first is called ‘La Scala’ - ‘the scale’ - and goes up and down in tones and semitones, the second does thirds, the third fourths and so on. Then the exercises move on to *'fiorituri'*, *'appoggiaturi'*, *'acciaccaturi'*, *'trills'*, *'roulades'* and so on. These are the twiddly bits, where agility is needed. I recommend you get hold of a book of these exercises at some point and gradually incorporate them in your practice session. Do them in Italian - use my chapter on singing in foreign languages to teach yourself. They are available in a variety of keys for high, medium and low voices. No need to buy! They are long out of copyright and available free on the internet from the excellent ‘Petrucci’ or IMSLP website, along with many thousands of music sheets of out of copyright material. Worth a look.

Table of melodic intervals with associated songs.

Semi tones	Interval	Upward	Downward
1	minor 2nd	<u>dum dum</u> dum dum (Jaws shark theme)	1. <u>Bali hai</u> (South Pacific) 2. Für Elise (Beethoven - first two notes)
2	major 2nd	1. <u>happy birthday</u> to you 2. <u>doe a deer</u> (Sound of Music)	<u>three blind</u> mice, see how they run
3	minor 3rd	1. a <u>foggy day</u> in London town (Gershwin) 2. <u>so long</u> farewell (Sound of Music)	<u>hey Jude</u> (Beatles)
4	major 3rd	1. <u>oh when</u> the Saints.(New Orleans jazz tune) 2. <u>Have yourself</u> a merry little Christmas	1. <u>sum mer</u> time, and the livin is easy... (Porgy and Bess) 2. <u>swing low</u> sweet chariot (Spiritual)
5	perfect 4th	1. <u>should old</u> acquaintance be forgot...(Auld lang syne) 2. <u>twinkle twinkle</u> little star 3. <u>Here comes</u> the bride	1. <u>I've been</u> working on the railroad, all the livelong day...(Spiritual) 2. <u>O come</u> all ye faithful (Carol)
6	tritone	Mar-i-a, I've just met a girl named (West Side Story)	1. Purple Haze (Jimi Hendrix opening guitar riff) 2. My heart will be blessed with the sound of music and <u>I'll sing</u> no more - (Sound of Music)
7	perfect 5th	1. <u>baa baa black</u> sheep, have you any wool... 2. <u>God rest</u> ye merry gentlemen (Carol)	<u>flint - stones</u> , meet the Flintstones...
8	minor 6th	1. <u>is this</u> the little girl I carried... 'Sunrise, sunset' (Fiddler on the Roof) 2. I <u>feel you</u> Johanna (Sweeny Todd)	<u>three French</u> hens (Carol - The 12 days of Christmas)
9	major 6th	<u>my bon-</u> nie lies over the ocean... Scots folk tune	1. <u>no-bo</u> -dy know the trouble I've seen... (Spiritual) 2. <u>night time</u> sharpens (Music of the Night Phantom of the Opera) 3. <u>Sweet Caroline</u> (Neil Diamond)
10	minor 7th	1. <u>there's</u> a place for us (West Side Story) 2. the <u>win-ner</u> takes it all (Abba)	may all your <u>Christ-masses</u> be white (White Christmas)
11	major 7th	<u>take on</u> me (A-ha 80s band)	And <u>have yourself</u> a merry little Christmas now
12	octave	<u>some-where</u> over the rainbow, bluebirds fly...	someone to <u>watch over</u> me (Gershwin)

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Vocal health

I am not a doctor, as I make clear to my students. So I am not qualified to provide medical advice. If you need a doctor then see a doctor. However I offer words of wisdom that hopefully will help keep you out of trouble.

The first thing is that you should realize that vocal problems can occur, either through bad luck in the genetics lottery or through stupid misuse. The latter you can avoid.

My advice is that if the larynx or throat hurts then stop. Pain in the larynx is not good. Don't carry on with whatever is causing the problem. Typically this will be misuse by trying to sing too high, too loud, too long or too rough. - straining, shouting and screaming. If the hurt doesn't go away then see a doctor. If there is a serious problem then hopefully they will refer you to an expert in laryngology at a speech clinic.

If it hurts lower down, in the support muscles of the shoulders, ribs and back it is probably just athletic aches and pains. I always feel the muscle ache the next day after a big sing. Normally cured by time and a hot bath.

Nodules are the things singers often worry about. Little bumps on the vocal folds, possibly caused by strain and misuse. Supposedly they often go away by themselves. If not they can often be removed surgically. Professionals have to worry about such things. Amateurs should not have to. I hope you never encounter this problem. The great majority never do.

Remember to treat your voice with respect, especially if you use your speaking voice for work, for example as a teacher. If you need to use your voice a lot you should take care to speak in a way that doesn't strain your mechanism. Many people speak with little support, with husky, breathy or harsh tones, with tension. You can hear they will do themselves damage. You can alter these bad habits: use more support, perhaps speak at a higher

pitch with more projection. Proceed slowly with the changes or your friends will wonder what has happened to you.

It should go without saying that you should treat your body with respect, but I'll say it anyway. Don't do drugs (nicotine, alcohol, other stuff). Get plenty of rest and think pure thoughts.

We often get colds. Should we sing with a cold? Not if you don't have to. Similarly if you are just under the weather and not feeling up to it. If you can not sing without pain then please don't. But often the cold will not much affect your voice. I don't ban my students if they arrive with a cold - it's just the luck of the draw for me. Just once or twice I have had to stop the student and send them home early, but it is rare.

Ultimately it is your voice and your body - you are in charge - not the show director or the bloke running the recording session. Do what you think is best.

I shall mention hearing under this chapter heading. Please be aware that loud noises, especially from loudspeakers, close proximity to trombones or big opera voices can damage your hearing with as little as 15 minutes exposure.

I expect you will want to read other books on singing other than mine. Some are very good, but I should warn you that there are plenty of dodgy myths propagated in some books - that will not do you good at all! So here are my warnings:

Some books talk about manipulating the larynx. Don't manipulate your larynx!! you can do yourself an injury to this delicate mechanism. What on earth do you gain?

Some books talk about the 'tilt' of the larynx. I have never understood this instruction, which derives from the Estill method that became the latest fad a few years ago and is now on the wane. They ask you to tilt your larynx. Now there is a tilting that occurs as different registers are engaged (particularly the cricothyroid muscles) and you sing higher, but it is hardly under conscious control. I say leave the larynx alone!

Most books talk a lot about 'rehydration' and advise you to drink lots of water, so that the badge of a singer has become the water bottle they carry around. This I also can not understand, though I am in a minority here. Singing does tend to dry the mouth as one breathes in through an open mouth most of the time. So if you are thirsty take a drink. If not then, in my view, don't bother. Rudolf Pierney (opera star Bryn Terfel's teacher at one time) had a rather coarse way of putting it, which he would employ on seeing a young singer swigging water, 'That's going down the wrong hole!' Referring to the fact that water goes down the esophagus to the stomach but the larynx (that supposedly needs the water), is down the trachea or windpipe. The idea that in normal situations one needs several gallons of water each day (or whatever else large amount) is simply not true (as far as I can see by consulting the scientific literature - it seems the scientists want to support the idea but can't come up with the test results to prove their case!). But the myth persists and is very widespread. Probably part of the 'witchdoctor' syndrome that some singing teachers use to appear knowledgeable. I would be more impressed if they quoted and referenced the scientific literature, but they rarely do.

The National Academies of Sciences, Engineering and Medicine report of 2004 states 'The vast majority of healthy people adequately meet their daily hydration needs by letting thirst be their guide'.

But it won't hurt to go along with the majority and drink plenty of water, especially if it is hot and you are sweating: much better than drinking expensive, fizzy, sugary drinks that rot your teeth and make you fat.

Talking of which brings vivid recollection of a show I did once where we got stuck on stage behind closed curtains for a few minutes between scenes, after a hectic passionate delivery of a big opera, waiting for some change or other. The lights were very, very hot. We were crowded together in heavy costumes. Several of the dramatic soprano ladies were Wagnerian

in their proportions. There appeared wide and deep pools of sweat on the floor beneath their dresses. Quite remarkable. We all needed a drink after.

Advanced topics

vibrato, formants and formant tuning, appoggio, messa di voce, singing in foreign languages

vibrato

Classical vibrato is a regular variation of loudness and pitch (around 6 or 7 times per second). The pitch variation is considerable, around a semi tone. A well trained voice will have a natural vibrato that will not be perceived as a rapid variation but instead as a beautiful rich tone, perfectly in tune. This is the way the brain works.. It is a natural thing - you don't have to work at it - just sing with a relaxed throat and jaw and it will be there. See the exercise.

If the pitch spread becomes too wide and/or the variation becomes too slow than it will become noticeable (a wobble!). Not nice- probably more support and flexibility needed from the abdominal muscles. If the variation is too fast then it becomes noticeable as a tremolo, which is tiring to listen too. Probably more relaxation needed in the larynx.

At one time, from roughly the 60s to the 80s, there was a vogue for classical singers to sing without classical vibrato. It was called a 'white' tone. It was linked with the craze for early music - music from before 1600. String players also stopped using their vibrato, caused by varying the string tension with a finger push. I never liked it - to me it sounded unnatural and, in the case of the string players, rather like a cat being tortured, but hey, many people loved it.. Now the craze seems to have gone away. The early music singer Emma Kirkby was famed for this 'white' tone, but I hear her as having a natural classical vibrato - part of the attraction of her beautiful voice! Maybe it's just my ears?

Don't worry about classical vibrato - it will just happen when you make a beautiful sound - so concentrate on making a beautiful sound.

Pop vibrato is a different kettle of fish! Most people fail to recognize the difference, which causes much confusion, though this is changing. Voice scientists have not explored pop vibrato as much as classical vibrato and less is known about it. Here are my views.

First - it is deliberate and can be switched on and off at will, halfway through a note if required.

Second - it can be done by various means, all of which involve tension.

Thirdly - I can do it in a couple of ways but it is hard to teach. I let my imagination work on the feeling associated with the note (it needs to be a long note) and then tense up somewhere in the root of my tongue and in my pharynx. Looking now at several females sing in a high belt and widening their mouths with a tight jaw I can see another type, which I can now try. Just copying!

My advice on pop vibrato is to leave it as an advanced technique. When you can sing the song very well without it then try it and let it spoil your voice a little. Don't spoil your voice first and then try to sing the song well.

Formant and formant tuning

As outlined in the chapter on vocal sound formation in the vocal tract, a formant is a group, close together in frequency, of the notes/pitches forming part of the big chord, of fundamental pitch plus dozens of harmonics, that rings when we sing a note (or any instrument plays a note). Mostly harmonics but also other frequencies (so-called 'noise'). Much of this is in the sound produced by the larynx but much is altered by the resonances in the vocal tract. The notes/pitches in the formant group are boosted in power.

The sound of the voice is the end result of all this

Research in the acoustics of singing, for example that of Donald Gray Miller (D.G. Miller 2008), has analyzed the way that the sound we hear

from an experienced singer is often boosted in power by a formant. This is done largely unconsciously by the singer by subtle shifts of mouth shape, modifying the vowel being sung at that pitch towards another with an available formant at that pitch. Miller refers particularly to famous tenor Luciano Pavarotti's 'formant tuning' on high notes. Bozeman (Bozeman 2008) raises the matter of mouth acoustics and talks of several 'rooms' in the mouth, whose 'walls' are formed by the tongue and which contribute individual resonances to the overall sound (and affect the 'register' as well.)

The question is do you want to try to do formant tuning? It won't hurt to try, but don't spend too long on it. The science is still developing and the matter is not well described at present. It is related to the classical bel-canto maneuver called 'covering', whereby a vowel is slightly modified on a high note. You could try that - pout and protrude the lips slightly and change the vowel slightly, normally towards a neutral 'schwa' vowel or 'er' - so 'laaaa' becomes slightly 'lurgh'. You should hear a richer sound, maybe slightly muffled.

Feel free to change your jaw, tongue and lip shapes on a long highish note to try the effects of resonance tuning. Try and explore the 'rooms'. Look in a mirror when you do - you may find the facial look to be not unpleasant.

Appoggio

There is much muddle and confusion about this Italian term. It is used in the context of breathing and support and can have many meanings - my big dictionary gives for 'appoggiare': 'to lean', 'to lay', 'to rest', 'to support', 'to back', 'to base', 'to ground'. Let's say 'support' and then we do not need the Italian term. My teachers never mentioned it, but many books, and especially youtube videos, do mention it - the latter often as a kind of witchdoctor incantation. 'Appoggio will allow you to sing better'.

Hines describes 'nine methods of appoggio using the diaphragm'. (Jerome Hines 1997 p32). Vennard (Vennard 1969) does not use the term in his excellent book. Richard Miller (R. Miller 1996) goes into much detail, with a wide definition of the term that encompasses the whole of breathing and support.

The idea I discuss here is delaying the rise of the diaphragm on the expiration. It is unclear to me to what extent this muscle, that contracts on inspiration and relaxes on expiration, can actually contract on expiration as well. I have experimented with various methods of trying to make this happen. I can achieve a high soft sound with my version, but in my experience it may hurt to use it, it may possibly give you an inguinal hernia and that for a beginner it is best avoided.

Keep it simple and try to avoid too much pressure on the glottis and vocal folds when you support the voice by pressing with the abdominal and ribs muscles.

I will say no more about appoggio in this book. Maybe in another book, when the science is clearer - at the moment it is not. My recommendation - ignore the term and the advice associated with it!

Messa di voce

This Italian term refers to an old bel canto exercise that is highly regarded and advocated by many teachers. Alas there is muddle, ambiguity and disagreement as to exactly how it should be done. The Italian term itself is antique and not understood by modern Italians. My big dictionary gives 'putting', 'placing', 'setting', 'laying', 'putting into action' for messa. I think the last is best.

The basic exercise, all agree, is to sing a long note on a vowel on a comfortable pitch, starting quietly, swelling to be louder and then getting softer to the end. I teach my students to do this at the first lesson. It is a basic exercise to develop the muscles of the larynx and the brains' control

of the support muscles. One should sing as long as is reasonably comfortable - maybe 10 to 15 seconds, and then repeat a number of times, for perhaps 10 minutes altogether, perhaps changing the vowel and the pitch.

The ambiguities come in regard to what is to be done while singing the vowel. Does one vary the percentage of head and chest and possibly change the register or not? It is easy to vary the tongue position a little, moving the hump of the tongue a little forward and a little further away from the roof of the mouth, the hard palate. Also one can vary the jaw position a little, keeping the jaw relaxed but opening the mouth wider or less wide. The sound will change slightly with each move.

This is how I teach the exercise. Easy to describe and easy to do.

To vary the amount of head and chest and actually to change registers is much harder. It is hard to find unanimity among the writers of books on singing teaching on this matter. Some refer to it briefly, others do not mention it. Going from full chest to full head is possible in the pitches around the primo passaggio half way up the voice range. But from head to falsetto around the secondo passaggio towards the top of the voice is much harder. It seems to me that it might cause tensions and is best left as an advanced exercise - not for beginners.

Singing in Foreign Languages

There is much pleasure to be had from singing the many masterpieces of the song literature in Italian, German, French and other languages. If you don't do this you miss out on so much beautiful music. But it's not easy, except for Italian, which I assert is easy.

I teach many of my students to sing in Italian. It takes me ten minutes. The reason is that Italian is WYSWYG ('what you see is what you get') in the spelling. Unlike English, which is completely bonkers when it comes to spelling, Italian is simple. One letter one sound - no exceptions - well very

few. I teach Singers Italian, not the spoken language, (which incidentally is very diverse across Italy, with speakers from some regions hardly able to understand others from other regions).

First we go through five vowels (yes five vowels!). There are actually seven in Italian but opera singers in general don't use the two 'closed' vowels. They are spelled 'a' (a long 'aaaah'), 'e' (like 'air'), 'i' ('eeeh'), 'o' ('awe' - as in awe of God - no diphthong) and 'u' ('ooooh'). If your accent is British 'received pronunciation' or generalized educated American this should work for you. If you have a strong British or American or other regional accent you will need to make changes (eg the flat Lancashire vowel in 'car' will need to be opened and relaxed). There are a million different accents for English and all have their peculiarities. You will need to listen to an aria and copy the vowel on a long note.

Then I do some of the exceptions - using girl's names 'gina' and 'gemma' as aides memoires. The vowels 'i' and 'e' cause the 'g' to be soft (as in 'judge'). For the other vowels it is hard as in 'golf'. The 'c' works the same - soft as in 'church' after 'i' and 'e', hard as in 'cat' after the other vowels. Then I ask for the 't' so be made less plosive and breathy, as it is in English, but rather more towards a 'd' - put the tongue on the teeth more. Work is needed on the 'r' to roll it the way the Italians do - good for exercising the tongue tip - many Americans need to eliminate the 'rhotacized' 'r' that they use, with a backward tongue tip.

That's it. Though there is more to do if you want to be an expert. It is hard for my students not to do diphthongs on 'o' and 'e', but they quickly learn.

Then we can do a full operatic aria, or something a little easier from the 'Arie Antique', the twenty odd old songs that have survived like 'Caro mio ben', or 'Nina'. Not understanding the words allows my students to develop legato and vocal beauty as they sing long and slow.

I also teach songs and arias in German and French. This is much harder unless the student has a basic grasp of the pronunciation to begin

with. You can try imitating a good singer on youtube or perhaps find a teacher. Alas many teachers are not good at languages and produce students who are poor in this respect. For example the 'ach laut' and 'ich laut' in German often come out as 'shhh'.

I have sung a little in Russian, very enjoyable as it opened my throat (though probably badly pronounced!) and always ask my students, who come from many countries, if they can bring something in their own language, though few do. It is a worthwhile endeavor - focusing on the exact vowel sound and then making it beautiful. At the moment I am working on Spanish.

Organizations for Singing Teaching

1. National Association of Teachers of Singing (NATS).

This is the USA association, with overseas associates. Very large and well organized. They publish the 'Journal of Singing'. About as authoritative as you can get. I thoroughly recommend it.

2. Association of Teachers of Singing (AOTOS)

A much smaller British association - very friendly and helpful, but not so up to date as the Americans.

3. British Voice Association (BVA)

A joint association for medical people and singing people together, who all study the vocal organs. Front line research in some aspects. Alas their Journal is no longer.

4. Incorporated Society of Musicians (ISM).

One of the two British trade unions (or professional associations if you prefer!) for musicians, which includes singing teachers and composers. It provides me with insurance cover which is a requirement for me. The recording studios I use for my compositions demand it and I feel comfort when teaching students, though I have not made a claim in over twenty years.

Incidentally, if you have reached thus far in my book, may I congratulate you and wish you well in your journey to becoming a singer. Perhaps now is the time to insert a plug for my compositions - operas and songs. Have a look and listen on youtube for my songs and operas and listen to recordings on my website www.joestjohanser.co.uk. Maybe you will want to sing one or more of the songs. Maybe you will one day reach an influential position in a singing organization and can encourage them to perform one of my operas! I guarantee the audience will not be bored!

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Then I need to thank my fellow singers and artists, who helped me develop my craft in front of an audience in a companionable and enjoyable progression. I have many fond memories of stage work together with my fellows, with the evening made joyful by the music, the drama and the fascinating tennis match of cooperation on stage.

Then there are my students. In the many years of my teaching practice I have taught hundreds of beginners to sing solo before an audience. They in turn have taught me much. Almost all of my students have been very pleasant people and a joy to teach. I have enjoyed getting to know them and working together to develop their voices. With one on one teaching one eventually develops a fairly close personal relationship. I take great pleasure in their successes in examinations, stage roles and performances. One has to maintain some distance and remain objective but it is usually a sad occasion when the student eventually leaves, as they all inevitably must, to get married, have babies, change jobs and so on with all life's changes.

I have been amazed to discover in myself an immense well of patience, having always considered myself an impatient person. If my students can keep going, battling some fault or other, then so can I.

Finally my beloved wife, Jackie, who has supported me through first night nerves and last night depressions, helped me with my costumes, at intervals kept my studio clean and tidy (brava!), admired my voice and my acting (we performers need regular encouragement) and been a calming and much-loved director and production manager for my seven operas (but that's another story!)

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