THE DEVELOPMENT OF A LIST OF SELECTED VOCALISES FOR
THE VOCAL TRAINING OF THE CHORAL ENSEMBLE

A thesis project submitted in partial satisfaction of
the requirements for the degree of Master of Arts in
Music

by

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ABSTRACT

THE DEVELOPMENT OF A LIST OF SELECTED VOCALISES FOR
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The study undertakes a limited survey of published and unpublished literature dealing with choral rehearsal techniques and solo vocal pedagogy in order to develop a selected list of vocalises to be used as teaching aides by the choral conductor. The techniques and exercises selected pertain to the teaching of posture, breathing, tone production and diction for the diversified structure of the choral rehearsal.

Chapter II entitled, "Conditioning the Vocal Instrument", provides suggestions for physical exercises which relax and energize the body and assist in achieving proper singing posture. Chapter III deals with breath support and is organized into three categories: vocalises for promoting deep breathing, vocalises for activating the diaphragm and vocalise for controlling exhalation. Tone production
is treated in Chapter IV which contains eighty-four selected vocalises for the development of vocal resonance. Chapter V discusses diction and provides selected vocalises for achieving the correct pronunciation, enunciation and articulation of vowels, diphthongs and consonants. Recommendations for utilizing the list of selected vocalises within the choral rehearsal are given in Chapter VI. In addition, an extensive bibliography is included to assist the conductor in further research in the area of vocal pedagogy.
CHAPTER I
INTRODUCTION

Statement of the Problem

A compilation of practical vocal teaching techniques for use during the choral rehearsal is not available in a single publication for the choral conductor. It is the purpose of this study to develop a digest of selected vocalises compiled from a variety of sources which can be used for teaching vocal skills during the choral rehearsal.

Need for the Study

Various pedagogical techniques are needed to meet the vocal requirements of the diversified choral ensemble. The choral conductor frequently lacks depth in skills necessary for teaching various vocal techniques to the choral members. The basis for this deficiency is that the conductor's educational background may have been restricted to instrumental, keyboard or other non-vocal studies. Even conductors who have been trained as vocalists may not have received adequate preparation in pedagogical skills.

In addition to the conductor's educational restriction and limitations, there is a lack of organized published materials on vocal pedagogy for the choral rehearsal. A conductor, in order to compile a broad spectrum of techniques, would require time-consuming research into varying philosophies and methods on vocal pedagogy. Rehearsal
schedules and performance pressures frequently leave little or no time for in-depth study and organization of such material. Therefore, the choral conductor could profit from a selected list of vocalises organized into one volume.

Basic Assumptions

A review of the literature dealing with vocal pedagogy reveals that correct vocal production is considered essential to each individual singer. It can be extrapolated that correct vocal production is equally necessary to the success of the choral ensemble. The individual performance level of each of the singers in the choral ensemble ultimately determines the total performance level of the group. When the fundamentals of vocal production function correctly, the sonority of the ensemble is improved and the tonal resources are increased. Thus, the choral conductor must have a thorough knowledge of the techniques of vocal production and the skills needed to transmit them to the members of the ensemble.

Voice teaching is an integral part of the successful rehearsal. Development of the fundamentals of vocal production requires habitual practice. The voices must be exercised according to individual needs and to the demands of the music. Development of vocal control and flexibility is necessary for achieving the choral tone required for a specific style of musical literature and for the specific aural concept of the conductor. One of the most efficient and most practical means of achieving this control and flexibility is by utilizing a period of vocalization within the choral rehearsal.
Encompassed within the choral rehearsal, a period of vocalization has four main objectives:

1. It is a motivational device for establishing an achievement attitude toward singing by focusing on the physical, mental, and emotional attributes of the singers.

2. It develops the physical coordination of the vocal apparatus thus refining positive tonal qualities and correcting prior vocal abuses.

3. It furthers the development of breath control, tone quality, intonation, blend, balance, and diction.

4. It helps solve musical problems encountered in the literature presented.

Procedures

Source of the Data

Published and unpublished literature on choral rehearsal techniques, choral conducting and solo vocal techniques were examined for the purpose of obtaining a collection of practical voice teaching techniques for use in the choral rehearsal. The selected literature contained information regarding the teaching of four elements of vocal production, namely: conditioning the vocal instrument, which includes posture and relaxation; breath support; phonation and resonance; and diction.

The procedures for collecting the data were as follow:
1. Books on choral conducting and choral rehearsal techniques were reviewed for specific information regarding practical devices for teaching vocal skills within the choral rehearsal.

2. Books on solo vocal pedagogy were examined in order to extract additional techniques which could be adapted to the choral setting.

3. Articles dealing specifically with choral vocal training were examined in the following professional journals: The Choral Journal, Music Educator's Journal, The National Association of Teachers of Singing Bulletin, American Music Teacher and the American Choral Review.

4. Notes and materials accumulated by the writer from the sources indicated below were re-evaluated:
   a. Choral clinics by Wilhelm Ehmann and Larra Brown Henderson
   c. California Music Educator's Association convention workshops and performances
   d. Observations as an adjudicator for Southern California Vocal Association festivals
   e. Further observations of choral rehearsals and
voice classes in the Santa Barbara and Los Angeles Secondary School Districts, Santa Barbara City College and the University of California at Santa Barbara.

f. Choral concerts in the United States and Western Europe.

g. The writer's own experience based on ten years of teaching choir, madrigal and other vocal ensembles.

5. Unpublished doctoral dissertations dealing with choral vocal pedagogy were examined.

Limitations of the Source of Data

A selected bibliography of the literature to be analyzed was compiled from United States publications and includes the following:


Reasons for Limitations of the Source of Data

Literature on choral techniques was chosen so as to include representative material from each of the six schools of thought.
influencing choral singing in the United States as defined by Howard Swan in *Choral Conducting: A Symposium*. One of these schools of thought emphasizes the use of vocalization for the development of choral tone as developed by William Finn. Although Finn's book is considered by some to be outdated, it has been influential on the development of the choral act. His techniques place a great deal of importance on vocalization as an integral part of the tonal development of a choral ensemble.

A random selection of representative published literature dealing with solo vocal pedagogy was chosen. The publication dates were limited to the years between 1930 and 1978. Perusal of every book in this area was beyond the scope of this study because of the vast amount of material available.

Articles reviewed were limited to those published from 1970 to 1978 in order to verify that no new technique had been developed.

Review of the Literature

Investigation of the literature reveals that, in general, books on choral conducting and procedures present an inadequate treatment of the subject of vocal pedagogy. They frequently contain much information on the organization of the choral ensemble, choral style and interpretation, conducting and rehearsal techniques with

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little or insignificant discussion of procedures for teaching correct vocal production. Those books which have contributed pertinent information to this study are: Wilhelm Ehmann's, Choral Directing; William J. Finn's, The Art of the Choral Conductor; Paul Roe's, Choral Music Education; and Howard Swan's The Development of a Choral Instrument, Chapter I in Choral Conducting: A Symposium. Each contains a section which provides excellent exercises for choral voice training. However, the material set forth therein is not organized in a simple, concise manner so as to provide a practical and easily accessible reference for the conductor. There is also a tendency in these books to over-emphasize a particular vocal element, thus not presenting a balanced vocal technique.

Books on solo vocal pedagogy contain exercises which can be adapted to the choral rehearsal. However, some are too complex to utilize within the diverse structure of the ensemble. Vocalises in two, three or four part harmony, which are so important to the ensemble for practice in achieving blend and balance, are not included therein.

The articles selected for review generally discuss only particular aspects of vocal training. They are helpful to a compilation of material but have limitations when considered separately.

Notes and materials accumulated through choral clinics and festivals provide additional information not yet published.
Method of Study

The procedure in treating the accumulated data is as indicated below:

1. Each work in the selected bibliography was analyzed for information pertaining to the teaching of posture, breathing, tone production and diction.

2. The author's notes from various sources as listed herein were re-examined for pertinent information.

3. Techniques and exercises were selected from the above two sources on the basis of the following:
   a. The diversified structure of any choral group with its variance in ability and experiential levels.
   b. The necessity in group instruction of using exercises requiring a minimum of explanation.
   c. Those which can be applied to a wide range of choral groups with effective results.
   d. Evaluation and assessment by the writer of exercises tested with select groups.

4. Each of the four elements of vocal production forms a chapter.

5. A variety of vocal techniques and exercises is included, each clearly described as to its purpose and implementation. Musical examples are provided where appropriate.
Clarification of Terminology

Most of the terms used in this study will be known to the musician. The following is offered for the purpose of clarification.

The term "vocal pedagogy" is defined as the art of teaching singing. "Choral ensemble" pertains to a group of singers rehearsing and performing under the leadership of a conductor. "Vocalise" is used to describe any physical, mental or vocal exercise which can be utilized for choral vocal training.

The information in the study is directed to the "teaching conductor" who works primarily in an educational setting rather than with a professional choir.

Limits and Scope of the Study

This study is intended to provide a wide range of practical and pedagogical techniques extracted from diversified sources for the purpose of providing a concise, easily accessible source of information for the choral conductor. It is not intended to be a comprehensive one which satisfies all the needs of every choral ensemble.

It is based on a selected bibliography of literature published in the United States and unpublished literature pertaining to the subject. Additional bibliographic references are included as recommendations for further research and study.

Those vocalises footnoted are taken directly from the publications cited. The other vocalises included were composed by the
author as teaching techniques for special concepts of vocal production.
CHAPTER II
CONDITIONING THE VOCAL INSTRUMENT

Good singing involves the entire person. It should be a total experience of physical, mental and emotional involvement. It requires relaxation, flexibility, coordination and vitality. A rigid or lethargic body inhibits the physical coordination necessary for free vocal production. The body must be free and relaxed, yet resilient. Simple physical exercises can help establish the necessary physical and mental alertness needed for excellent singing. One and a half to two minutes of physical exercise at the beginning of the rehearsal or a particular points during the rehearsal can help release muscular tension and energize the body by increasing circulation and muscle action. This assists in promoting a flexible body in which the muscles are free to respond in a coordinated manner. Coordination helps develop correct posture and deep breathing, and allows the vocal apparatus to function freely.

Physical Exercises

The following calisthenic exercises increase circulation, facilitate deeper breathing, invigorate and vitalize the body. They may be used singly or in combination and in any sequence.

Vocalise 1. Run in place at a steady pace to a count of twenty. Gradually increase the count in subsequent rehearsals. Musical tempo terms can be included with this
exercise by asking the ensemble members to run at
a particular "tempo", alternating the specific tempo
as desired.

Vocalise 2. Do jumping jacks to a specific rhythm.

Vocalise 3. With an imaginary rope, practice jumping to a speci-
fic rhythm and varying tempos.

Vocalise 4. Starting from an upright position, touch the toes
in a specific rhythm with the fingers of both
hands. Standing with the feet slightly apart, touch
the left hand to the right foot and right hand to
left foot. Execute these to a specific rhythm and
tempo as this promotes consistent effort as well as
feeling of unified action so important to an ensemble.

Vocalise 5. Imagine that you are a boxer bouncing on the balls
of your feet while making straight thrusts forward
with the arms as though sparring.

Vocalise 6. With the arms extended, swing the upper part of the
body in a circle from the waist, first to the left,
then to the right.

Vocalise 7. Bend at the waist and swing the arms from side to
side in the motion of a pendulum.

Vocalise 8. With the arms extended over the head, stretch as if
trying to reach the ceiling, then slowly lower the arms
to the sides of the body also lowering the shoulders.
As the arms are lowered gradually inhale a deep, low
breath. Keep the rib cage in a high position.
Vocalise 9. Stretch the arms and trunk upward as in number 8; inhale deeply. Then slowly bend at the waist exhal­ing as you bend. Touch the toes with the tips of the fingers. Be careful to do this as relaxed as possible to avoid jerking the back muscles.

Vocalise 10. Proceed as in number 9, this time allowing the arms and head to hang downward very loosely. Imagine you are a puppet. Slowly raise the trunk of the body as though the puppeteer is in control. Inhale continuously until standing in an upright position.

Vocalise 11. With the hands at the waist and the feet slightly apart, bend first forward at the waist, then back­ward, and finally to the sides. Bending in this manner, make circles with the body first in one direction, then in reverse.

The following exercises are suggested as useful for relieving muscular tension.

Vocalise 12. Roll the head slowly in a circular motion, first in one direction then in the reverse direction.

Vocalise 13. Rotate the shoulders in circles up and forward. Reverse the direction going up and backward.

Vocalise 14. Lift the shoulders as high as possible then let them drop like dead weight close to the body. Do this first with one shoulder, then the other, then both.

Vocalise 15. Shake each arm loosely but vigorously. Do the same
with each leg.

Vocalise 16. Imagine that you have just stepped out of a cold shower. Try to warm yourself up by moving quickly and rubbing the arms and body with your hands. An audible "brr" might help.

Vocalise 17. Inhale deeply lifting the rib cage as high as possible. Then exhale all the air quickly on an audible sigh. Allow the body to slump completely at the expulsion of the breath. Attempt to have a

Vocalise 18. Massage the back of the neck with both hands while moving the head back and forth and from side to side.

Vocalise 19. Do the following isometric exercises:

a. Push the hands together counting to 10. Try this at different levels of the body.

b. Hook the fingers of the hands together and try to pull them apart.

c. Push the left hand down against a raised left knee for five to ten seconds. Do the same on the right side.

These exercises are suggested to relax the jaw, tongue and facial muscles. Tension in these areas hinders the production of a free tone.

Vocalise 20. Massage the cheeks and jaw with both hands.

Vocalise 21. Drop the lower jaw quickly and loosely.
Imagine its position to be the same as if you were sleeping with the mouth open.

Vocalise 22. Attempt to yawn. Concentrate on the feeling of openness in the throat just at the beginning of the yawn.

Vocalise 23. Literally shake out the tongue. This may bring laughter within the ensemble which in itself promotes relaxation.

Vocalise 24. Vibrate the lips together as when child imitates a motor. This may seem trite by some. However, it is helpful for promoting a type of flexibility in the lips.

Vocalise 25. Place an imaginary piece of fruit into your mouth, a cherry, plum or peach. Slowly chew moving the jaw, cheek muscles, lips and tongue around to accommodate the fruit. Finally, spit out the pit with the lips.

These exercises should never be allowed to become drudgery for the singers. The conductor should stress their purpose and attempt to lift the spirits of the ensemble by conducting the exercises dynamically and good naturedly.

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2This exercise was demonstrated at a Wilhelm Ehmann choral clinic in 1975 by Frauke Haussman, Dr. Ehmann's assistant.
Posture

Correct posture is of vital importance to the singer. The vocal mechanism cannot function perfectly until correct posture brings its coordinated parts into alignment. Correct posture prevents physical interference of muscle tension, allows freedom for the breathing apparatus and provides a firm support and feeling of balance.

Correct posture consists of:

1. An erect stance without stiffness
2. A straight spine
3. An alignment of the back of the head, center of the back between the shoulders, the buttocks, and heels
4. An erect head with the chin approximately level with the floor
5. A comfortable high chest to give room for expansion of the lungs and diaphragm
6. Relaxed shoulders that are not raised
7. Slightly flexed knees
8. Feet slightly apart so that the weight is evenly distributed

There should be a feeling of inward stretch and buoyancy rather than a feeling of being weighted down. The back should feel wide and elongated, the spine stretched. There should be a feeling of an expansive "lift" in the chest and around the waistline. The middle point of the body, at the point of the waistline, should feel like a balance point. The neck should feel a continuous stretch at the
back, not at the front. The body must feel resilient and strong but never rigid. It must be relaxed, yet full of vitality. A stiff military stance must always be avoided.

It is wise to alternate between sitting and standing during choral rehearsals as the body becomes easily fatigued if it remains in one position too long. The sitting posture feels like the same position one takes just before standing. The lift is felt at the hip level. While singing one should sit on the edge of the chair with one foot slightly ahead. Having both feet are flat on the floor tends to throw the body back into the chair.

The following can be used in the choral rehearsal for promoting the concept of good posture:

Vocalise 26. Imagine that you are in a coat that is hanging on a hanger.

Vocalise 27. Imagine that your body is suspended from the head.

Vocalise 28. Stand as though hooks were pulling up from the top of the back of your head, then relax a little.

Vocalise 29. Imagine that the top of the back of your head is attached to the ceiling by a string.

Vocalise 30. Imagine that you are a marionette hanging from strings, one attached to the top of your head and one attached to the top of your breast bone.

Vocalise 31 Imagine a rubber band attached to the heels and running up through the legs, spine, neck and out the top of the head. The habitual pull or stretch of the imaginative rubber band helps achieve the correct alignment.
Vocalise 32. Think of the body resting within the bony framework, much like a bone trellis upon which all else grows.

Vocalise 33. Imagine that you are doing some sport that is familiar to you such as running, diving, golfing, horseback riding and the like. Establish the stance for the particular sport. Strength and balance should come from the legs and hips. Think of the polarity between tension and relaxation which must exist in the body if one is to be good at this sport.

Vocalise 34. Imagine yourself growing taller from the middle of your body. Strive for a flexible lift not from the chest or shoulders but by stretching from the hips. Expand the area between the pelvic bone and lower ribs.

Vocalise 35. Imagine that there is a string attached from the sides of each of your shoulders to the walls opposite and that these are gradually being pulled toward the wall.

Vocalise 36. Stretch the fingers downward as if trying to reach the floor. Stiffen the fingers and turn the palms slowly outward until the rib cage expands. At the same time the palms are rotated, inhale slowly and gradually straighten the knees, poising on the balls of the feet. At the end, the shoulders are down, the chest is expanded and the body lifted upward. Be careful that the back does not become too arched.

Vocalise 37. Beginning with the hands at the sides, turn the palms
to the front and slowly swing the arms out, behind and up over the head, slowly inhaling. When the arms are over the head, stretch, then turn the palms down, allowing the arms to fall slowly as you exhale. Concentrate on keeping the chest in a high position.

Vocalise 38. Practice leaning against the wall from the tail bone to the head with the heels slightly away from the wall. Then stand forward but keep the sensation that the wall is still supporting you.

Vocalise 39. Sing a simple musical phrase first with the head between the knees then in an upright position and then with the head tilted back so that the neck is stretched. Note the alteration in tone quality that occurs when in the different positions.

The choral conductor must always insist on good posture from every singer in the ensemble. To achieve this, one must attempt to stimulate the imaginations of the singers via exercises such as the above. Generally, merely asking for good posture brings little success until the concept of the proper alignment of the body and its affect on tone is established. The basic function of good posture is to allow maximum freedom and to enhance coordination of all muscles involved in phonation. However, not only is it vital to freeing the vocal apparatus, but it also communicates to the audience an attitude of either interest or disinterest, preparation or little preparation, confidence or apprehension.
A combination of diaphragmatic and costal breathing is a pre-requisite to correct vocal production. Steady control of the breath is fundamental to both tone quality and expressive singing. Constant breath pressure is needed to sustain phonation. The controlled breath supports the tone keeping it flowing evenly, freely and with vitality. It is not how much air is inhaled that determines support but how the singer controls exhalation. Only a small amount of air is required to make a tone, only enough to vibrate the vocal cords. The singer should work towards developing the maximum tone with a minimum amount of breath. The ultimate goal is balanced action between breath control and tonal control.

Breathing for living and breathing for singing are different processes. Breathing habits for life functions and speech are so automatic that we hardly think about them unless some functional problem occurs. Breathing for singing requires more power and sustaining ability than for speaking. The singer must learn to inhale more quickly and deeply and exhale more slowly. Thus, various muscles of the breathing mechanism need to be activated and exercised.

Diaphragmatic-costal breathing gives the singer a steady, sufficient breath supply. The singer should concentrate on inhaling a deep, full breath quickly, quietly and with relative ease. The breath should be thought of as low and deep in the body so as to al-
low the vocal cords freedom to vibrate. Clavicular breathing involves only the upper chest and results in shallow breath intake. It causes tension in the upper chest and shoulders as well as the muscles around the larynx.

The muscles used for diaphragmatic-costal breathing are the intercostal muscles, abdominal muscles and the diaphragm. Correct posture enables these breathing muscles to work with maximum freedom. According to Trusler and Ehret in *Functional Lessons in Singing*, "Good posture is the foundation of controlled breathing and controlled breathing is the foundation of singing."³ There should be a feeling of a spinal stretch to correctly align the body. The chest should be comfortably lifted before inhalation and remain quiet during singing. The shoulders should be down and relaxed and should not be raised during inhalation. The lower rib cage should be expanded in order to allow the lungs, diaphragm and abdomen freedom to be flexible. There should be a feeling of "low gravity" with strength at the middle of the body.

During inhalation the diaphragm flattens and spreads outward and the lower ribs widen and lift with an accompanying sensation of expansion just above the waistline at the front, sides and back. The lower ribline (costal) muscles must continue to resist outward during singing so that the inner space is not reduced. Reduction of inner space will prevent the diaphragm from moving steadily

upward in order to expel the breath. The function of the diaphragm is to hold back or resist the natural tendency for the breath to be expelled immediately in an unconscious reflex contraction. As Van Christy writes in *Foundations of Singing*, "The breath control feeling which should be experienced and habituated for diaphragmatic-costal action is a flexible, outward-expansive, holdback sensation." The singer must develop a feeling of resistance or "hold-back" at the level of the diaphragm so that a steady, continuous flow of air occurs. This is necessary for development of tonal quality and control. The singer should have a feeling of holding back the breath but without undue tension.

Breath training is an integral part of choral instruction. Choral rehearsals should include regular practice for developing the physical coordination needed for consistent breath support. In the rush to get to the music, conductors frequently fail to build this capability into their choirs. However, as Daniel Moe states, "proficiency in basic ensemble skills will be contingent upon the flexible use of the breathing muscles".

Basic breathing exercises should be practiced during the vocalization period of the rehearsal. Suggested exercises for building flexibility and strength in the muscles of the breathing mechanism are organized in this study according to the following categories.

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1. Exercises for deep breathing with emphasis on intercostal rib and back expansion and location of the diaphragm

2. Exercises for activating the diaphragm

3. Exercises for control of exhalation

Exercises for Deep Breathing

During inhalation the throat must be open and the neck muscles relaxed so that the intake of air will be quiet and not an audible gasp. The singer should concentrate on taking a deep, but comfortable, breath through both the nose and the mouth. An attempt at taking in too much air will only create tension, restricting the flexibility of the muscles involved in breath support. Correct posture must be maintained. The shoulders should be down and relaxed and should not move up and down during inhalation and exhalation. The chest should be lifted and remain quiet during singing. If there is movement in this area it will generally mean shallow breathing. There should be no tightness in the upper chest or the throat.

The following breathing exercises are designed to induce deep breathing with accompanying intercostal rib and back expansion.

Vocalise 40. With the hands around the lower rib cage just above the waist and the thumbs toward the back, take in a breath as if at the beginning of a yawn. The mouth and throat are relaxed and open. The ribs expand but there is no movement of the upper chest or shoulders.
Vocalise 41. With the hands in the same position as number 1, imagine that you are breathing down into your belt-line. Attempt to move your hands outward solely with deep inhalation.

Vocalise 42. Take in a deep breath in preparation for a sigh. Release the air via a long, vocalized sigh proceeding from a high pitch to one in the low range.

Vocalise 43. Take in a breath as though surprised or amazed.

Vocalise 44. Breathe deeply and imagine that you must blow out a candle some distance away.

Vocalise 45. Lie on the floor with a weight such as a book on the abdomen near the ribs. Since gravity is not effecting the shoulder action, the breath will come automatically. On inhalation the weight lifts; on exhalation it goes down. Imagine that the pressure of weight is expelling the breath.

Vocalise 46. Imagine that you are drinking in air but don't swallow.

Vocalise 47. Imagine that you are sipping a delicious liquid through a straw from a container on the floor. Take in all the liquid in one steady, long sip, filling up completely. There should be a sensation of expansion at the lower rib cage. Gradually let the liquid return to the container back through the straw. Remember you will probably spill the liquid if the return is not slow and steady.

Vocalise 48. Slowly inhale to the count of 4, raising the arms
steadily from the sides until they meet over the head. Take in the air through both the nose and the mouth with a relaxed, open throat. This should induce maximum expansive lift all around the lower ribline and back.

Vocalise 49. Inhale slowly to the count of 5, hold the breath to the count of 10, exhale to the count of 5. In each practice period attempt to lengthen the count for each step. Strength and control must be gradually acquired. Do not try to extend the count too far, too quickly. There should be no tension on inhalation nor collapse of the chest at the end of exhalation.

Vocalise 50. In a sitting position lean over so that the chest rests on the lap. Let the arms hang loosely down. Breathe in and out several times noting where the expansion occurs.

Vocalise 51. From a sitting position, lean forward and place the forearms or elbows on the knees. Inhale deeply expanding the waistline entirely around the body. Do not raise the shoulders. The singer should feel action in the abdominal, dorsal and costal muscles.

Vocalise 52. Bend over at the waist exhaling slowly. Pick an imaginary flower. Slowly rise up, breathing in the fragrance of the flower.

Vocalise 53. Place the fingers on the epigastrum, the triangular, boneless area between the ribs just under the breast-
bone. Inhale and lightly cough. You will feel the bounce of the diaphragm as air is expelled.

Vocalise 54. Slowly bend over to pick something up. Exhale as you move. While inhaling rise and stretch as though hanging this object up just above your normal reach. This should allow room for expansion around the waistline.

Vocalise 55. Place the hands against the sides of the lower ribs so that after exhalation the finger tips are barely touching in the front. Inhale and allow the expansion at the lower ribs to push the hands as far apart as possible. There should be expansion at the back also.

Vocalise 56. Practice breathing while standing against a wall. Press the shoulders against the wall to help prevent the tendency of the chest to collapse.

Vocalise 57. Tie a string around the waistline. Concentrate on having the string expand as you inhale. During exhalation tighten the string. Inhale again quickly and the string should jerk out of the hands. Be sure to keep the shoulders still.

Vocalise 58. Put the fists together at the chest and pull outward horizontally. Attempt to put them into the armpits while keeping the wrists straight. Inhale deeply and at the same time bring the chin toward the chest. This strengthens chest expansion which
is necessary for deep breathing.

Vocalise 59. To keep the shoulders still during breathing lean over a desk or table. Place the hands firmly on the desk or table using the weight of the arms. Inhale quickly, then exhale slowly. Do this several times.

Deep breathing is beneficial to a variety of life's functions. It is conducive to the relaxation of both the mind and body. Steady, deep breathing can help reduce and control anxiety and tension. Athletes require deep inhalations not only for relaxing the body but also for energizing it. Calisthenics are valuable in promoting deep diaphragmatic breathing. The reader is referred to Chapter II of this study for suggested exercises.

The singer should feel a strength and balance at the center of the body since correct breathing has a low center of gravity. It is frequently helpful to the singer to make use of other life related bodily activities which revolve around the center of the waist and hips, such as mowing with a scythe, pitching hay or shoveling. Reference to sports such as golf and tennis, which require strength and balance from the lower part of the body and flexibility from the upper portion, can also be beneficial.

Exercises for Activating the Diaphragm

The following exercises are suggested for increasing the flexibility and strength of the diaphragm.

Vocalise 60. Take in a breath as though getting ready to blow outward. Delay the action and you will experience the
Vocalise 61. Practice panting rhythmically. Inhale a deep breath, then release it on an aspirate "huh". Do a series of these, being sure that the pulsation is felt low in the body. Place the finger tips on the epigastrium. Attempt to feel a strong diaphragmatic action. Begin with a count of 10 and a slow tempo. With practice the count and tempo can be gradually increased.

Vocalise 62. Place the hands around the waistline or at the epigastrium and attempt to laugh or at least simulate a laugh. This promotes diaphragmatic action and relieves tension and muscular rigidity. The positive psychological aspect of laughter is vital for promoting healthy voice production.

Vocalise 63. Inhale deeply. Speak a low "ho" with a burst of air. The impulse should come from the diaphragm. The throat should be open. Attempt to do a series of these on one breath.

Vocalise 64. Shout "hey" or "hello" as though trying to attract someone's attention. Observe the way in which the breath is taken in anticipation of projecting volume. Be sure to keep the throat open and to feel the impulse of the breath coming from low in the middle of the body. Do not yell.

Vocalise 65. Inhale a deep breath. Vigorously blow the air out on
an aspirate "h" by pulling the abdomen inward. Com-
plete the exhalation with a percussive "k" to expand
and release the abdomen. Think of saying the word
"hook" in a strong whisper. This promotes the coor-
dination of the muscles of the lower abdomen and rib
cage. It also strengthens the upper chest area so
that it will not collapse while singing.  

Vocalise 66. Place the finger tips on the epigastrium. Inhale
deply, then exhale slowly on a "hiss". The epiga-
strium should slowly move inward. Concentrate on
keeping the ribs expanded.

Vocalise 67. Place the hands on the ribs under the arms. Inhale
four times as though sipping. Keep the chest high.
Exhale slowly through "ss" feeling the action of the
abdominal muscles.

Vocalise 68. Raise both arms over the head. Gradually lower the
arms while exhaling on a hissing "ss". Hold the chest
and ribs high. Be sure to maintain a feeling of out-
ward lift and expansion around the waistline to the
very end of the initial count of four. There should
also be a simultaneous feeling of a "spinal stretch".
Increase the count gradually to eight and possibly
twelve.

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6 This exercise was demonstrated at a Larra Browning Henderson
c vocal clinic in San Diego, California, 1978.
Vocalise 69. Inhale deeply. Energetically blow out breath in three fast puffs on a single exhalation. Increase the number of puffs possible on one breath. The diaphragm should work energetically.

Vocalise 70. Hold a hand in front of the mouth making believe that every finger is a lighted candle. Blow the first four out with a quick "wh". Then exhale the remainder of air on the last "candle" with a long "wh" or "s".

Vocalise 71. Imagine an inflated tire with an air valve that can be turned on and off. Inhale deeply and on "ss", "sh" or "f" imitate the leak of air that would occur if the valve were open. The conductor can stop and start the leak with a hand signal. The leak must be steady and vigorous. When the valve is in the off position, do not take in a new breath.

Vocalise 72. Place the hand around the waist. Quickly inhale with the idea of surprise. Exhale percussively in rhythm on "ch" as in the word "chew". With each "ch" concentrate on the impulse coming from the mid-section of the body. Feel a bounce from the diaphragm with each one. This should be done with a single breath. Begin with as few as 10, gradually increasing the number. Never continue to the point of creating tension in the neck or facial muscles. Be sure that the jaw and neck are relaxed and that the impulse of air comes from low in the body.
Vocalise 73. With the mouth closed, inhale five rapid jerky breaths. Pinch the nostrils almost shut so that the diaphragm is forced to work harder.

Vocalise 74. Place a small object against the epigastrium. Lean so that the other end presses against a wall. Stand on tiptoe with the feet apart so that the pressure is on the object. Release the breath and allow the bottle to expel air by pushing in. Inhale, pushing the weight of the body away from the wall.

Vocalise 75. Sing the following vocalises individually using the various syllables indicated. Next sing them in combination, taking a breath only after every four measures.

a. 7

\[ \text{Hm hm hm hm hm hm hm hm hm hm} \]
\[ \text{Ha ha he ha ha ha ha ha ha} \]
\[ \text{Ho ho ho ho ho ho ho ho ho ho} \]

b. 8

\[ \text{Hm hm hm hm hm hm hm hm hm hm hm} \]
\[ \text{Ha he he he he he he he he he he he he he he} \]

Vocalise 76. Sing the following with a vigourous accent on each pitch. The diaphragm will expel short burst of air.

\[ \text{Hm hm hm hm hm hm hm hm hm hm hm hm hm hm hm hm} \]

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7 Christy, op. cit., p. 28.

8 Ibid., p. 29.
Exercises for Control of Exhalation

The singer should attempt to control breathing indirectly through tonal concepts and physical sensations. Over concentration on controlling the muscles of the breathing mechanism can create muscular tension. If the emphasis is placed on how much air is inhaled, the singer will generally attempt to take in too much, creating tension and increasing the reflex action of the body to expel the air immediately. The emphasis should be on prolonging the air in a continuous, vital emission. The voice should "ride" on a steady column of air. The breath energy must remain constant for controlled, expressive singing.

An analogy to an inflated balloon can demonstrate the need for constant breath energy. When an inflated balloon is filled with air and then the opening pulled tight, a steady squeal sounds at a constant pitch. When the balloon begins to go limp and the sides lose their support, the tone goes flat and loses its brightness. If the balloon were squeezed while still inflated the tone would be sharp and become more piercing because more air pressure was applied. Any disturbance of the deflation would alter the tone quality and the pitch. The same applies to the human vocal apparatus.

The singer must literally be inflated with air and must control exhalation allowing only enough air pressure to vibrate the vocal cords. He must attempt to feel the expansiveness even while exhaling so that the controlling muscles can be free to continue supporting the tone.

The following exercises are suggested for practice in achiev-
ing control of exhalation.

Vocalise 77. Imagine that you must blow out a candle some distance away. Take in a deep breath and exhale, blowing a steady, consistent stream of air. Remember, it must travel a distance.

Vocalise 78. Put the hands in front of the mouth and sing so that you feel no air but only warmth on the hand. This helps keep the ribs out and hold back air.

Vocalise 79. Sing a long sustained pitch on a single vowel. Concentrate on emitting a steady, even flow of air so that no fluctuation occurs in the tone. Imagine that a long, light piece of paper extends out from your mouth and that you must keep it floating straight out. If you lose support the paper will flutter downward; if you apply too much air pressure the paper will flutter upward. The exhalation must be consistently controlled if the paper is to remain horizontal.

Vocalise 80. Inhale deeply to a slow count of 4. On an "oh" or "ah" vowel exhale for 8 counts. Increase the count as the practice continues.

Vocalise 81. Count "hundred one," "hundred two," etc., using a singing voice while exhaling. Concentrate on lifting the chest and gradually tightening the waistline. Work toward gradually sustaining the exhalation for a longer period of time.

Vocalise 82. Sing the following exercise on one breath. It can help extend breath capacity.
Vocalise 82 (continued)

Vocalise 83. Sing with as steady and firm a flow of air as possible.  

Vocalise 84. Hum very slowly. Breathe where indicated.

9 Christy, op. cit., p. 29.
10 Trusler and Ehret, op. cit., p. 2.
Vocalise 85. Hum the following breathing where indicated.\textsuperscript{11}

Vocalise 86. Sing Vocalise 85 first on an "oo" and then "oh" vowels.

Vocalise 87. Sing at a moderate tempo and with one breath. Do not tighten the throat or allow the chest to collapse. If the singers are unable to comfortably complete the phrase in one breath, practice it first at a faster tempo. As the ability to control the breath improves, the tempo can be slowed.

Vocalise 88. To help sing long phrases requiring sustained breath flow try pushing against the back of a chair or pulling with the hands from underneath the chair. This

\textsuperscript{11}Trusler and Ehret, op. cit., p. 2.
helps to strengthen the rib cage. Be sure not to tighten the neck muscles.

Vocalise 89. Stopping exhalation abruptly several times and then resuming it again without taking in more air, can help to intensify breathing activity.

Vocalise 90. In any of the above exercises, crescendo when there is a feeling of losing breath support. This will help to keep the ribs expanded so they will not collapse the lungs.

In addition to being fundamental to tone quality and control, correct breathing has other significance for the choral ensemble.

In choral singing correct breathing should be cultivated—breathing at the beginning of the song and breathing during a song. The breath taken at the beginning of a song has a two fold significance; it unifies the choir into an animated, corporate unit right at the outset and thus helps to insure precise and tonally correct entries. This initial unification helps the choir to achieve the necessary physical and mental alertness.¹²

CHAPTER IV
PHONATION AND RESONANCE

"Phonation basically refers to the act of uttering voiced sounds. Singing is a special, controlled kind of phonation. The process begins with a steady stream of air being propelled up through the windpipe and the larynx. The larynx controls the intake of air and houses the vocal cords, sometimes referred to as the vocal folds. The vocal folds are set into vibration, which in turn send up sound waves which are resonated or reinforced by the column of air within the oral and pharyngeal cavities. The actual process is quite complex and delicate. It requires a coordination of thinking, breathing and sound-making. If any part of the total process is not in balance the tonal production will not be of the best quality.

Resonance

Resonance is the resounding of the original sounds made by the vocal folds. It is the column of air within the oral and pharyngeal cavities that actually resonates vibrations set up by the vocal folds in the larynx. One of the main objectives of the singer must be to achieve maximum resonance through balanced coordination of the vocal apparatus. "Resonance in the voice is perhaps the single quality contributing most to vocal beauty."

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The literature analyzed for this study indicates varying opinions as to the exact location of resonance. Some authors stress that resonance occurs primarily in the mouth and nasal passages, some include the pharynx, and others the chest. Figure 1 shows parts of the vocal apparatus, excluding the chest, where the sound is made and resonated.

The voice depends on a tone source and resonators much as other instruments do. The tone source for the voice are the vibrations of the vocal folds in the larynx. Its resonators are the hollow spaces of the head, pharynx and chest in which the air can vibrate. In these resonating chambers the tones emanating from the vocal folds are intensified. The oral and pharyngeal cavities make excellent resonators because they are variable in size and shape and can be "tuned" differently for different tone qualities.

The larynx not only houses the vocal folds but also is an important part of the respiratory system. It is the passageway for the ingress and egress of air. It functions as a protective valve for the respiratory tract by keeping matter out and acts as a valve closing the air passageway and keeping the air in the lungs. While singing it should be in a low position at all times. This allows for a larger and more open resonating chamber and more relaxed laryngeal muscles. If it rises, the throat becomes tight and the voice may sound hard and cramped. Immediately above the larynx and extending upward behind the mouth and the nasal cavities is the pharynx. It must be as open and free from constrictive tension as possible to
allow maximum resonance space.14

The authors are in agreement that free resonance is vital to
good vocal tone quality. They suggest many methods for assisting the
singer to achieve resonance in the voice. Many describe particular
physical sensations as an aid. Some rely on imagery as an indi-
rect means. Some suggest that one should "sing as you speak". Many
refer to resonant tone as tone that is "well-focused", "properly
placed" or "sung in the mask". It is advisable for the choral con-
ductor to become familiar with as many of these methods as possible
in order to be prepared for solving the specific problems of the in-
dividuals in the ensemble.

A resonant tone is one that sounds clear, vital and free from
tension. It may be described as having a ringing, hum-like tone
quality that is neither throaty nor guttural. A resonant tone
"possesses ring, hummy vitality, and mellow depth at the same
time."15 It should feel and sound open and relaxed but still be
intense enough to be ringing and efficient. Resonant tones will
carry and be easily heard. However, resonance should not be con-
fused with loudness. Even the softest tones must have vital reson-
ance. The ultimate goal for the singer should be the ability to sing
resonant tones on all the vowels and with all dynamics throughout
the vocal range.

14 For a more detailed discussion of the principle resonators
of the voice, see William Vennard, Singing, the Mechanism and the
15 Van A. Christy, Foundations of Singing (Dubuque, Iowa:
Some sources state that a resonate tone must have a feeling of forward "placement". This term can be a confusing one. The tone is produced in the larynx, so the actual location of tone production cannot be changed. The tone cannot actually be placed anywhere. However, the singer can affect the resonance of the voice by allowing maximum room for the process to happen. He can attempt to open resonance cavities via mental imagery and by controlling the shape of the mouth and throat as well as the movement of the tongue, soft palate, lips and jaw.

Excessive tension in any aspect of the vocal mechanism prevents the attainment of fully resonate tones. The majority of the authors suggest the concept of forward resonance as a means for achieving the maximum freedom in the utilization of the singer's resonating chambers. Concentration on high tonal focus helps the larynx to function with a maximum amount of freedom. Thinking the tone high and forward draws attention away from the throat, helping to keep it relaxed without muscular tension. Forward articulation with relaxed and flexible lips, tongue and jaw also helps to prevent tension in the laryngeal muscles. A sensation of space between the oropharynx and nasopharynx is essential to forward resonance. This space is regulated by the position of the soft palate, the fleshy, back part of the roof of the mouth. The singer should strive to develop a high forward arch to the soft palate to open this space. This allows for an extension of the vibrating column of air and a more effective use of the upper resonating cavities.

Simulating the action of snoring can help the singer locate the soft palate and feel its flexibility. Positioning the mouth as
Figure 1
in the beginning of a yawn is helpful for developing the sensation of high forward arch of the soft palate. For some, singing with a feeling of high arch in the back of the mouth helps lift the soft palate.

Initial Attack

The start of inception of tone is called the "attack". The attack begins when a breath impulse causes the vocal folds to vibrate. In order to create resonance, the vocal folds must offer sufficient resistance to convert all of the breath into sound waves. The coordination of the breath and vocal cords must be simultaneous for a free, clear, resonant tone. The breath must be used efficiently. The singer must master the art of starting the tone at the instant the vocal folds come together.

There are two types of attack that must be avoided: the breathy attack and the glottal attack. In the first the tone begins before the vocal folds come together. In this way too much air is allowed to escape unvocalized. In the second the vocal folds close after inhalation. When the tone begins its sounds like a light cough or a grunt. This is known as the explosive "shock of the glottis" and is injurious to the vocal folds. The folds should remain open during inhalation and just before the attack. The right amount of air pressure must be applied to allow the vocal cords to resist just sufficiently to produce the tone. Adequate breath control is most important.

In figure 2, a, b, and c, the reader can see the position of the vocal folds during quiet breathing, a breathy tone and a clear
a. Quiet Breathing  

b. Breathy Tone  

c. Clear Tone  

d. Clear Tone  
   Medium Pitch  

e. Clear Tone - High Pitch  

Figure 2
tone. As the air pressure is altered for various pitch levels, vibration occurs at different parts of the vocal folds as indicated in figure 2, d and e. Even breath distribution is a necessary function. If too much breath is expended, the vocal folds do not close properly and a breathy tone results. The quality of the tone loses vitality and the singer is unable to sustain long phrases. Interaction between breath control and tonal control must be mastered for skilled singing.

Selected Vocalises for the Development of Resonance

The following vocalises are suggested to the choral conductor as useful techniques for teaching good tone production and resonance to choral members during the choral rehearsal.

Imagery

Imagery is one useful, indirect device for helping singers realize sensations which are helpful to correct tonal production.

Vocalise 91. Imagine that you are singing through the eyes.
Vocalise 92. Imagine that the tone originates behind the eyes.
Vocalise 93. Imagine that the tone is spinning behind the upper part of the nose.
Vocalise 94. Imagine that the tone soars through a hole in the top of the head.
Vocalise 95. Imagine that the tone circles above the head.
Vocalise 96. Imagine, a slight inner smile as you prepare for the initial attack. This helps to lift the frontal
facial muscles located directly above the upper lip.

Vocalise 97. Imagine that the tone comes from the top of the forehead.

Vocalise 98. Imagine the tone as a bell which continues to ring clearly.

Vocalise 99. Imagine that you are singing into a mask covering your face.

Vocalise 100. Imagine that you are going to sneeze just before beginning the initial attack.

Vocalise 101. Imagine that the tone must pass through a small hole in the front teeth.

Calling on the singers to use their imaginations frequently produces a freer tonal production by focusing attention away from the actual vocal apparatus.

In executing the following vocalises, the singer should maintain correct singing posture and adequate concepts of deep breathing and breath support. He should keep in mind the importance of a relaxed and open jaw. He should allow the tongue to generally be relaxed and low in the mouth with the tip just touching the back of the bottom teeth. He should be mentally alert and aware of the purpose of a given vocalise.

Initial Attack

Humming is one of the best devices for beginning phonation. It can be used to develop clear tone production with a minimum of breath and without excessive muscular tension. To produce a hum form an
"oh" vowel with the lips loosely closed on an "m", the tongue relaxed and low in the mouth, the jaw comfortably dropped and the throat relaxed. The clear hum should have a feeling of freedom in production and a purity of resonance. Humming on the consonants "m", "n" and "ng", alone or as prefix to various vowels, also provides an excellent muscular setting for the attainment of resonance.

In preparing for the initial attack, mentally think the tone, clear, ringing and intense in quality and prepare to attack the pitch from above. Inhale deeply and quietly. Start the air flow with a slight inward and upward pull of the abdominal muscles.

Vocalise 102. Sustain a single pitch on a "hum" for a minimum of 8 counts. Gradually increase the length of time this can be sustained. Concentrate on literally "filling the head with sound". Place the finger tips on the nose, cheek bones or bony structure just above the eyes and attempt to feel the vibration of the sound waves.

The "h" of the "hum" will help to open the throat.

The following exercises are for practice in developing a perfect attack and for strengthening the diaphragm. Each can be transposed up and down by half steps. It is best to stay in the middle range of the voices until good tone production has been established.

Vocalise 103. The grace note should be very brief. It should help the singer to think the pitch from above.
Vocalise 104. Sing softly and staccato. Take a short breath at each rest.

Vocalise 105. Sing softly and staccato. Take a short breath at each rest.

Vocalise 106. Sing each group of notes with one breath.

Vocalise 107. Sing the following first on "hm" then on "hg". Sing with a low support and an open feeling in the throat and body. Try to feel vibration in the lips which should be barely touching each other. Imagine that you have a balloon in your head that requires a lot of space.

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Vocalise 107. (continued)

Vocalise 108. Extend vocalise 107 to include descending and ascending scales.

Vocalise 109. Extend vocalise 107 to include descending and ascending arpeggios.

Vocalise 110. Allow the vowel to proceed directly from the hum without a break. Alternate use of the primary vowels.

Vocalise 111. Sustain the following for 20 to 30 seconds or more if possible. If any singer in the ensemble needs breath, he should avoid gasping for air. He should be instructed to take sufficient time to take a deep inhalation even though the remainder of the ensemble is still sustaining the pitches. To check if every member is humming correctly, the conductor should ask the group on a given signal to open their mouths.

while humming. If the hum changes to an "ah" vowel the singers are humming incorrectly. It should change to "ng" which will be an even more intense than the "hm" sound. Humming on chords is an excellent warm-up technique for the beginning of the rehearsal. The conductor can insist on ensemble members beginning to hum immediately on entering the rehearsal room.

"m", "n", "ng" Vowels

The following vocalises are useful for developing resonance through the use of the consonants "m", "n", and "ng" alone and in combination with the primary vowels. They may be transposed up and down in pitch by half-steps according to the vocal ability of the ensemble members. Although some exercises quoted from particular sources are given in ascending phrases the author recommends beginning vocalization primarily on descending phrases. This helps prevent the muscular tension and heaviness of tone which frequently occurs in untrained vocalists as they ascend in pitch. As coordination develops, varying patterns can be used.
Vocalise 112. Keep the jaw relaxed and the mouth fairly wide open. Attempt to feel vibration in the facial region.

Vocalise 113. Prolong the "m". Place the fingertips lightly against the bridge and side of the nose in order to feel the vibration. Sing into the "mask".

Vocalise 114. Sing as indicated.

Vocalise 115. This vocalise provides the relaxation of the "huh" sound, the resonance of the "ng" and an opportunity

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to blend the vowel tone with the nasal consonants.

Vocalise 116. Feel the tone behind the front teeth, be sure the throat is open.

Vocalise 117. Begin a sustained tone on "ng". Now let the back of the tongue come down very slightly so that a small amount of tone can flow between the top of the mouth and the arch of the tongue. Sing "win-win-win-win". Even though words are being pronounced, the unison should sound like one continuous tone.

Vocalise 118. After practicing this pattern several times end the pattern on the final vowel. Instead of "ng" focus the attention on the cheekbones and sinus area.

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Vocalise 119. Be sure to relax the jaw and think the tone in the front of the face.

Vocalise 120. Carry the close vibration and compact, forward feeling of the "hum" over into and through the following vowels.

Vocalise 121. The use of "m" and "n" with the bright vowels "ay" "ee" is especially helpful for developing forward resonance.

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21 Christy, op. cit., p. 50.
Vocalise 122. 22 Think the "m" and "n" consonants on the same pitch as the vowel which follows. Be sure to think the "m" and "n" intensely "hummy". Drop the jaw loosely and keep it relaxed even when saying the consonants. Practice this also on "moo-moh-mah-may-mee". The "oo" vowel helps to relax the larynx and is easily produced by most singers.

Vocalise 123. The jaw should not move with each syllable. The tongue tip should move quickly to articulate the "n".

Vocalise 124. The "oo" is a particular resonant sound. First sing a "moo" on each pitch. Then sustain only the "oo".

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22 Christy, op. cit., p. 36.
Vocalise 125. Sing this exercise legato. Be sure that the throat is open for "nee".

Vocalise 126. Sing staccato, emphasizing the "m". Feel as though you are literally bouncing it off the lips.

Vocalise 127. Think the pitch is on a horizontal level straight from the mouth. Do not stretch the neck to reach for the higher notes. Using the idea of hitting the bullseye on a dart board can be helpful. (See Vocalise 142.)

23 Zimmerman, op. cit., p. 32.
Vocalise 128. Sing with one breath. Allow more space for the vowel as you crescendo.

Vocalise 129. The jaw should drop quickly after articulation of the "m". The tip of the tongue should remain touching lightly at the base of the lower front teeth.

Vocalise 130. Sustain the vowel the maximum amount of time possible. Articulate the consonants quickly. Vary the sequence of vowels, consonants and harmonies.

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Vocalise 131. Articulate the consonants quickly giving a slight accent to the beginning note of each triplet. Vary the sequence of syllables as needed. Sing with a quick tempo to help develop flexibility.

Vocalise 132. Use a diaphragm "kick" on the upper note of each pattern of four sixteenths. Vary the sequence of syllables to develop flexibility in changing from one to the other with a small amount of jaw and tongue movement.

Other Consonants And Vowel Combinations

The following vocalises utilize consonants other than the voiced "m", "n" and "ng". They are helpful to resonance and frontal articulation.

Vocalise 133. Imagine that you are blowing downward into a bottle

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25 Vocalise 131 and 132 were suggested by Dr. Clarence Wiggins, Professor of Music at California State University, Northridge.
Vocalise 134. Simulate the action of tasting food while singing.
Emphasize the final "m". Variations can be sung with the syllable "yum", "nome" or "oh".

Vocalise 135. French nasal syllables call for the tongue to lie flat and loose which allows for more width in the mouth and nasal resonators.

Vocalise 136. This is designed to open the mouth and throat in order to develop mouth resonance.
Vocalise 137. Sing staccato. Be sure to keep the throat open to avoid the glottal attack. Think of the tones as occurring on the horizontal. Try not to reach for the upper pitch or sing the lower pitch too heavily.

Vocalise 138. The "d" is articulated forward with the tip of the tongue. Be sure to keep the throat open. Emphasize the quick, precise articulation of "d" and the ring of the "ing" and "ong".

Vocalise 139. Attempt to feel a vibrating sensation in the nasal area and cheekbones. Emphasize the "m" and "ing".

27 Zimmerman, op. cit., p. 33.
Vocalise 140. Do not allow the consonants to stop the sound of the vowels. It can be helpful to sing the following initially on "oo" only.

Vocalise 141. The "f" is also good for helping forward focus. Try alternating other vowels than those shown.

Vocalise 142. Imagine that there is a dart board several feet away away from you at the level of your mouth. Sing the following thinking the tone horizontal in direction. Attempt to hit the "bulls-eye". Allow more room in

the mouth as you sing the higher pitches. Think the support of the diaphragm as moving down as the pitch goes up. Gradually increase the tempo as you practice. Build up the momentum.

Vocalise 143. Sing the following in different keys and varying dynamic levels.

Vowels Only

The following exercises utilize only the primary vowels. The initial vocalises emphasize vowel and consonant combinations because the consonants help forward focus and prevention of glottal start. The singer should sing the vowels while thinking a prefix consonant to assist in the coordination of breath, vocal fold vibration and phonation.

Vocalise 144. Keep the jaw open as for the "ah" vowel articulating
a long exhalation of breath and repeat the vocalise several times.

Vocalise 145. Carry the focused quality of the "ee" into the darker vowels.

Vocalise 146. Use a very nasal "ay". The sound will be rather ugly. Attempt to feel vibration sensation in the nasal passages. Keep the throat relaxed. Next relax the jaw and tongue slightly allowing the sound to enter the mouth. Attempt to keep a feeling of the vibration in the front on the hard palate, just below the nose.

\[29\text{Christy, op. cit., p. 50.}\]
Vocalise 147. Sing smoothly. Do not allow a break to occur between the pitches. Allow a little more inner space in the mouth for the higher pitch. Think the support downward at the waistline as you go up in pitch. Begin these in the middle range of the voice. Extend the range only when there is no alteration of the vowel when changing pitch. The larynx should stay low in the throat.

a. 

b. 

(All Vowels)

c.
Vocalise 148. Sing these smoothly. Work for a free, resonant tone. Work for consistent tone quality, neither too dark nor too bright.

a.

b.

(all vowels)

c.

30 Clippinger, op. cit., p. 11.
Alternate combinations of vowels on single tones, five tone scales and triad arpeggios. Attempt to move smoothly from one vowel to another with little jaw movement or interference of the neck and facial muscles. The tongue will change positions to articulate the vowels.

Vocalise 150. For help in placing the larynx in a low position try yawning and swallowing.

Vocalise 151. Vocalises which utilize the syllable "nah" widen the space of the larynx.

Vocalise 152. Vocalise on "oo" and "oh" vowels are useful aids for low larynx position. Since the "ee" vowel tends to

\[ \text{ah- ay-ee- ay ah} \]

Lip, Soft Palate, Jaw Flexibility - Larynx Position

The following vocalises are helpful in developing flexibility in the lips, tongue, soft palate and jaw as well as relaxing the position of the larynx.

Vocalise 150. For help in placing the larynx in a low position try yawning and swallowing.

Vocalise 151. Vocalises which utilize the syllable "nah" widen the space of the larynx.

Vocalise 152. Vocalise on "oo" and "oh" vowels are useful aids for low larynx position. Since the "ee" vowel tends to

\[ \text{ah- ay-ee- ay ah} \]

\[ [\text{Zimmerman, op. cit., p. 32}]. \]
lift the larynx, it helps to practice combining both vowels.

Vocalise 153. Use the consonant "k" to strengthen and activate the soft palate. Sing stacatto with a feeling of an inside smile. Be sure the jaw is relaxed.

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32 Christiansen, op. cit., p. 9.
Vocalise 155. 34 Vocalise to help develop a high forward arch to the soft palate.

\[ \text{Ah-yah-yah-yah-yah-yah-yah-yah-yah} \]

Vocalise 156. Practice a yawn-sigh for developing the sensation of a high forward arch to the soft palate. Simulate a yawn and exhale gently and vocally with a feeling of relaxation. This also tends to lower the larynx.

Vocalise 157. 35 Vocalise to increase the flexibility of the soft palate.

\[ \text{Fla-fla-nee - fla-fla-nee} \]

Vocalise 158. 36 Vocalise to promote the movement of the jaw and tongue together. Do not let the jaw jut forward. Be sure the upper lip stays up enough to allow the upper teeth to show a little.

\[ \text{kah-kay-ker-koh-koo kah-kay-ker-koh-koo} \]

34 Christiansen, op. cit., p. 11.
35 Henderson vocal clinic.
36 Henderson vocal clinic.
Vocalise 159. Vocalise to increase mobility of the upper lip and to open the space behind the nose, over the hard palate. Roll the "r", lifting the upper lip straight up.

\[
\text{Preh-preh-preh-preh (ever)}
\]
\[
\text{Prih-prih-prih-prih (it)}
\]
\[
\text{Pra-pra-pra-pra (at)}
\]
\[
\text{Pruh-pruh-pruh-pruh (up)}
\]


\[
\text{yah-yah-yah-yah-yah}
\]

Vocalise 161. To exercise the jaw, practice saying various words first with the mouth almost shut then immediately with the jaw dropped. Words that are good for helping to relax the jaw are "olive", "yawn", "gong", "paw" or "ding-dong".

---

\(^{37}\) Henderson vocal clinic.

\(^{38}\) Roe, op. cit., p. 105.
Vocalise 162. Imagine that you are eating an entire plum or peach all at once. Imagine the space that would be necessary to accommodate the fruit.

Vocalise 163. Place the index fingers at the indentation which forms when the jaw is opened. Keep the fingers there while you sing different vowels. Attempt to keep the indentations open at all times when singing.

Vocalise 164. Vocalise to help open the throat. Move directly from the "ng" to the "gah" without a break.

\begin{music}
\begin{multicolumn}{c}{c}{\text{Ng-gah}}
\end{music}

Extending the Range

The following vocalises can be used for extending the upper range of the voice. Some authors refer to this as the "high voice" or the "head voice".

Vocalise 165. Start a yawn then emit a high, downward slide.

Vocalise 166. Prepare to call the name of a friend who is off in the distance and whose attention you want. Call in a high voice.

Vocalise 167. It is helpful to think the upper notes very nasal. Practice first with a nasal "ay", then follow with a normal "ay".

\begin{music}
\begin{multicolumn}{c}{c}{\text{ay (nasal) ay}}
\end{music}
Vocalise 168. Practice first with consonants prefixed to vowels, then only with vowels. Strive to maintain a uniform tone quality in all pitches. Initially it is helpful to sing this exercise staccato.

Vocalise 169. Think all the pitches on a horizontal plane even with the level of the mouth. When singing ascending passages, the singer should direct his thoughts downward and on descending passages direct them upward. The consonants "p", "b", "f", "v", "m", and "n" should be used for help in forward focus.

Vocalise 170. Imitate a high pitched siren on "nee" or "nah".

---

Vocalise 171. For helping the men to locate the falsetto voice, ask them to imitate a girl. Start with a high pitch and work down the range in 5 note sequences. Ask them to keep the feeling of the high vibration as you descend into the lower range.

Vocalise 172. Keep an inside smile and feeling of width across the front of the face.

Vocalise 173. Ascend a scale on a nasal "ay" then descend on "ah". Maintaining some of the nasal "ay" quality.

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Henderson vocal clinic.
Vocalise 174. Attempt to keep the forward, bright quality of the "ee" in the "aw" vowel. This helps exercise the lower range, especially the chest voice of women.

Vocalise 175. Attempt to keep the forward, bright quality of the "ee" in the other vowels. Think the lower pitches as being articulated just outside the mouth. This exercises the lower range of the voice, helping to prevent a throaty or overly "chesty" quality on lower pitches.

Strive to develop a smooth, controlled vocal line, one in which there are no noticeable breaks. Vocalize to coordinate the high and low registers of the voice with the middle one. Vocalize the chest tones up as high as possible and the head tones as low as possible. Attempt to keep a uniform tone quality throughout the vocal range. Without uniformity in tone production, blend and balance within

the ensemble is practically unattainable.

Work toward increasing control at differing dynamic levels. However, without resonance, an increase in volume only produces a tone lacking in focus and carrying power. To maintain a growth in quality and freedom, one should never exceed the physical and technical limitations in striving for volume.
Diction is a general term used to describe the three elements of pronunciation, enunciation and articulation. Pronunciation can be described as the speaking of words with correct sound and accent. Enunciation pertains to the clarity with which the word is pronounced. Articulation pertains to the physical action required of the articulators to shape vowels and consonants.

The literature dealing with diction was analyzed with respect to the fundamental approaches to diction pedagogy, i.e. vowels, diphthongs and consonants.

Vowels

Vowels are the chief means for sustaining the vocal tone. Hence, the formation of the vowel largely determines the quality of sound that is produced. Authors of books dealing with vocal pedagogy use vowels to teach resonance and tone production. They also seek intelligibility of text through correct vowel formation.

Without good diction there is little prospect for other choral virtues such as blend of voices, sectional unity, variety in tone quality or color, proper use of resonance, and even good intonation. Each of these choral virtues is dependent on the singer's uniformity and correctness of vowel formation.42

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Therefore, the correct formation of each vowel is a significant part of vocal technique.

The choral ensemble generally is composed of members with dissimilar vocal backgrounds. They may have different regional dialects, bad speech habits and perhaps incorrect vocal training. The sustaining quality of singing will tend to accentuate and amplify different or faulty speech habits. Choral conductors need to employ a standard of accepted usage in order to achieve uniformity of vowel production. If the vowels are not uniformly produced by the ensemble the quality of the tone and blend will be affected as well as the clarity of the diction. Poor vocal quality is often the result of faulty vowel formation. The conductor must be able to teach the production of each vowel and consonant sound.

The five cardinal vowels used for the basis of beginning practice are the pure Italian vowels: "a", "e", "i", "o" and "u". The English equivalent sounds for these are "ah", "ay", "ee", "oh" and "oo". These will be used in the text for simplicity and ease of understanding for those not familiar with the International Phonetic Alphabet.

The beginning student should not be confused by a too detailed discussion or analysis of vowel sounds. However, an understanding of certain fundamentals is necessary. The conductor should have a knowledge of the International Phonetic Alphabet but it is too intricate and involved for the average school choir. A student should have some basis on which to analyze the sound he produces other than the mere imitation of the conductor. Two
charts are included here which are useful for assisting the conductor in the teaching of basic diction within the rehearsal.

Figure 3 is a chart developed by Ray Moore. It includes I.P.A. signs, the fundamental sounds occurring in the English language and word examples which can easily be used by the students. Key words can be efficient devices for analyzing the vowel sounds. 43

Figure 4, by Robert Garretson, is much more condensed but more than sufficient for use as a guide to correct vowel production. The illustration symbols and the word examples are recommended by the writer for use in the choral rehearsal.

The authors of the literature analyzed differ as to which of the primary vowels is best for use in starting the study of vowels. Some indicate "oh" or "ah" as best. Others prefer to use "aw" or "oo". The choice is dependent on the needs of the singers and the aural concept of the conductor. All the primary vowels should be utilized to some extent in vocalization. No single one should be concentrated on to the exclusion of the others. 44

Production of Individual Vowels

The "ah" vowel is in a medial position between the dark vowels, "oo" and "oh" and the bright vowels, "ee" and "ay". It is the most sonorous of these. To prevent the "ah" from sounding dull

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Basic IPA Sounds Found in English Pronunciation Simplified for Use by the Average Choral Student

<table>
<thead>
<tr>
<th>IPA Sound</th>
<th>Vowels</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>ah</td>
<td>father [fæð]; pot [pɒt]; follow [ˈfɔləʊ]</td>
</tr>
<tr>
<td>e</td>
<td>ɛ</td>
<td>bet [bɛt]; catch [ˈkætʃ]; master [ˈmɑːstər]</td>
</tr>
<tr>
<td>i</td>
<td>ɪ</td>
<td>in singing i, the student should avoid placing the sound too far forward in the mouth; A dropped jaw will help.</td>
</tr>
<tr>
<td>ɪ</td>
<td>ɪ</td>
<td>plate [pleɪt]; inflate [ɪnˈfleɪt]; apa [əˈpɑː]</td>
</tr>
<tr>
<td>ɛ</td>
<td>ɛ</td>
<td>fed [fɛd]; net [net]; better [ˈbɛtər]</td>
</tr>
<tr>
<td>u</td>
<td>ʊ</td>
<td>booth [bʊθ]; tomb [tʌm]; zoo [zu]</td>
</tr>
<tr>
<td>oo</td>
<td>ʌʊ</td>
<td>book [bʊk]; foot [fʊt]; took [tʊk]</td>
</tr>
</tbody>
</table>

In singing a or ʊ, it is best to drop the jaw and lean toward the a (ah) sound.

<table>
<thead>
<tr>
<th>Diphthongs</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>a-i</td>
<td>ah-ɪ</td>
</tr>
<tr>
<td>a-u</td>
<td>ah-ʊ</td>
</tr>
<tr>
<td>j u</td>
<td>jʊ</td>
</tr>
<tr>
<td>o-u</td>
<td>ʌʊ</td>
</tr>
</tbody>
</table>

These diphthongs are included in the IPA scheme in a form which virtually equates the word sound with the vowel sound. It is recommended to use these diphthongs in the section of the text which is concerned with the pronunciation of the diphthong.

The pronunciation of the r is a matter of some concern for choral musicians. The question is often raised whether or not to actually pronounce it, or to simply sing the vowel sound immediately preceding it, muting the r, leaving it to be supplied by the "ear" of the listener. With the r omitted: tear [tɪər]; there [θɛɹ]; perhaps [ˈpɛərəs].

The use of the IPA character w, for clarity's sake because of the r sound, may be substituted for the r: fear [fɛɹ]; there [θɛɹ]; perhaps [ˈpɛərəs].

The pronunciation of "ch" is a matter of some concern for choral musicians. The question is often raised whether or not to actually pronounce it, or to simply sing the vowel sound immediately preceding it, muting the ch, leaving it to be supplied by the "ear" of the listener. With the ch omitted: crow [kraʊ]; garden [ˈɡɑːrdən].

The pronunciation of "sh" is a matter of some concern for choral musicians. The question is often raised whether or not to actually pronounce it, or to simply sing the vowel sound immediately preceding it, muting the sh, leaving it to be supplied by the "ear" of the listener. With the sh omitted: show [ʃəʊ]; blow [bləʊ]; throw [θrəʊ].

Figure 3
Triphthongs

<table>
<thead>
<tr>
<th>Sound</th>
<th>Triphthongs</th>
</tr>
</thead>
<tbody>
<tr>
<td>ah-ih-uh</td>
<td>fire [f1ər] or [faɪr]; tire [taɪər] or [təɪər]; inspire [ɪnˈspایər] or [ɪnˈspэər]</td>
</tr>
<tr>
<td>ah-uh</td>
<td>lower [ˈlaʊər] or [ˈlaʊər]; hour [ˈaʊər] or [ˈaʊər]; power [ˈpaʊər] or [ˈpaʊər]</td>
</tr>
<tr>
<td>oh-uh</td>
<td>oil [aʊəl]; boil [ˈboʊl]; royal [ˈrəʊl]</td>
</tr>
</tbody>
</table>

The following triphthong may be used if desired, to clarify the sounds inherent in the single IPA letter, o, when connected to the final w or r sound.

<table>
<thead>
<tr>
<th>Sound</th>
<th>Triphthongs</th>
</tr>
</thead>
<tbody>
<tr>
<td>oh-uh</td>
<td>ore [ˈoʊər] or [ˈoʊər]; rear [ˈrɛər] or [ˈrɛər]; more [ˈmoʊr] or [ˈmoʊr]</td>
</tr>
</tbody>
</table>

Comments

b b best [best]; baritone [ˈbærətən]; yellow [ˈblaʊr]
d d desk [dɛsk]; desk [dɛsk]; dock [dɔk]
fr fr flag [flæg]; flute [flʌt]; pharmacy [ˈfɛrməri]
g g get [get]; negate [ˈnɛɡət]; tag [tæg]
h h hill [hɪl]; bath [bæθ]; behold [ˈbɪhold]

IPA Sound

<table>
<thead>
<tr>
<th>Sound</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>ʌ</td>
<td>judge [dʒʊdʒ]; gently [ˈdʒentlɪ]; job [dʒɔb]</td>
</tr>
<tr>
<td>k</td>
<td>kiss [kɪs]; cantata [ˈkæntətə]; choral [ˈkɔrəl]</td>
</tr>
<tr>
<td>ɪ</td>
<td>live [laɪv]; ill [ɪl]; length [lɛŋθ]</td>
</tr>
<tr>
<td>m</td>
<td>major [ˈmeɪdʒər]; diminish [dɪˈmɪnʃən]; gem [ɡɛm]</td>
</tr>
<tr>
<td>n</td>
<td>note [nəʊt]; unite [ˈjuːnɪt]; machine [ˈməʃɪn]</td>
</tr>
<tr>
<td>ng</td>
<td>sing [sɪŋ]; anger [ˈeɪŋər]; watching [ˈwætʃɪŋ]</td>
</tr>
<tr>
<td>p</td>
<td>practice [ˈprækʃɪs]; peace [pɛs]</td>
</tr>
<tr>
<td>r</td>
<td>run [rʌn]; glory [ˈɡlɔrɪ]; children [ˈtʃɪldrən]</td>
</tr>
<tr>
<td>s</td>
<td>sit [sɪt]; cross [kroʊs]; blessing [ˈblesɪŋ]</td>
</tr>
<tr>
<td>sh</td>
<td>shush [ʃʌʃ]; small [sɔm]; patient [ˈpeɪʃnt]</td>
</tr>
<tr>
<td>ʃ</td>
<td>church [tʃɜrʃ]; clutch [klʌtʃ]; riches [rɪˈtʃɪz]</td>
</tr>
<tr>
<td>t</td>
<td>tooth [tʊθ]; yet [jɛt]; posture [ˈpɑːʃər]</td>
</tr>
<tr>
<td>ə</td>
<td>breath [bɹɪθ]; this [ðɪs]; then [ðɛn]</td>
</tr>
<tr>
<td>ʌ</td>
<td>breast [bɹɛst]; eighth [eθ]; think [θɪŋk]</td>
</tr>
<tr>
<td>v</td>
<td>very [ˈvɛri]; voice [ˈvɔɪs]; every [ˈevri]</td>
</tr>
<tr>
<td>w</td>
<td>west [wɛst]; well [wel]; walks [wɔːks]</td>
</tr>
<tr>
<td>y</td>
<td>yet [jɛt]; young [ˈjʌŋ]; yellow [ˈjɛloʊ]</td>
</tr>
<tr>
<td>z s</td>
<td>zero [ˈzɪəroʊ]; bees [biːz]; xylophone [ˈzɪləʊfoʊn]</td>
</tr>
<tr>
<td>ʒ</td>
<td>sh</td>
</tr>
<tr>
<td>hw</td>
<td>where [hɛər]; when [hɛn]; wheat [hweɪt]</td>
</tr>
<tr>
<td>ur or</td>
<td>early [ˈɛər]; maternal [ˈmætərɪnl]; singer [ˈsɪŋər]</td>
</tr>
</tbody>
</table>

An Example of IPA Usage

One way to a musical choral experience, for director, student, and audience alike, is through the use of uniform pronunciation and declamation, as in əˈrɪtʃənt, əˈdʒus ə ʃəˈmətəl əˈsɪŋər. The International Phonetic Alphabet can provide a means to obtain such a result, and to judge its effectiveness. Figure 3 continued
<table>
<thead>
<tr>
<th>Phonetic Symbols</th>
<th>Diacritical Markings</th>
<th>Illustrative Symbols</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>i (long e)</td>
<td>ī</td>
<td>ee</td>
<td>see, each, tree, Easter, free, glee, feet, sleep, deep, sheep, wheel</td>
</tr>
<tr>
<td>(short i)</td>
<td>I</td>
<td>i</td>
<td>sing, is, will, him, thing, ship, wish, April, similar, crib, been, king</td>
</tr>
<tr>
<td>e (long a)</td>
<td>ā</td>
<td>ay</td>
<td>say, faith, age, angel, rain, same, maiden, away, day, way, great</td>
</tr>
<tr>
<td>(short e)</td>
<td>ē</td>
<td>eh</td>
<td>yet, end, enter, help, never, every, let, men, said, then</td>
</tr>
<tr>
<td>è (short a)</td>
<td>ē</td>
<td>ã</td>
<td>at, rang, mantle, ashes, agony, began, can, cat, that, than</td>
</tr>
<tr>
<td>a</td>
<td>ā</td>
<td>â</td>
<td>ask, grass, laugh, bath, calf, craft, raft, chance, chaff</td>
</tr>
<tr>
<td>o</td>
<td>ĺ</td>
<td>ah</td>
<td>father, Amen, alms, army, far, heart, calm, palm, psalm</td>
</tr>
<tr>
<td>(short o)</td>
<td>ō</td>
<td>ō</td>
<td>stop, hot, sorry, Olive, God, watch, wander, John, you</td>
</tr>
<tr>
<td>ø</td>
<td>ō</td>
<td>aw</td>
<td>law, all, awe, autumn, always, talk, warm, dawn</td>
</tr>
<tr>
<td>o (long o)</td>
<td>ō</td>
<td>ō</td>
<td>slow, old, road, hope, low, soul, snow, open, so, boat, home, cold</td>
</tr>
<tr>
<td>u</td>
<td>ū</td>
<td>ū</td>
<td>look, bosom, took, foot, stood, should, would, book, full, brook</td>
</tr>
<tr>
<td>u</td>
<td>ū</td>
<td>oo</td>
<td>who, too, moon, whose, blue, true, through, flew, soon, tomb</td>
</tr>
<tr>
<td>ū</td>
<td>ū</td>
<td>ur</td>
<td>birth, early, earth, world, worth, perfect, burden, were</td>
</tr>
<tr>
<td>ū</td>
<td>ē ē</td>
<td>er</td>
<td>ever, never, another, pleasure, mother, weather, measure</td>
</tr>
<tr>
<td>ū</td>
<td>ē č</td>
<td>uh</td>
<td>about, around, firmament, America, awhile, away, above</td>
</tr>
<tr>
<td>(short u)</td>
<td>ē</td>
<td>uh</td>
<td>but, sun, done, creation, other, until, wonder, thunder</td>
</tr>
</tbody>
</table>

**Fig. 27.** The single vowels frequently occurring in choral literature, with symbols and examples by which the conductor may illustrate and correct pronunciation difficulties.

**Figure 4**
and too thoaty, avoid dropping the jaw too low. Think "ah" forward with a bright speaking quality. Keep the tongue easily at the bottom of the mouth with the tip in light contact with the lower front teeth. The arch of the mouth should be high to allow room for resonance.

The "oh" vowel has a central placement in the mouth. It is actually a diphthong combination in English diction, a combination sustaining an "oh" and vanishing on "oo". Although it is a dark vowel, thinking it as an exclamation with a rising inflection quality will help prevent it from sounding too dark. To keep it from sounding muffled, the upper lip should be raised just enough to show the lower edge of the upper teeth.

The "oo" vowel is the darkest of all vowels. It is frequently a most resonant one for particular singers. The singer must think the "oo" bright and ringing or it may become dull and too covered. He should feel vibration between the lips and teeth but should not force the lips too far forward when forming it. The author has found the "oo" vowel helpful for developing head resonance.

The "ay" and "ee" are the brightest and most intense of the vowels. They are excellent for achieving forward resonance. However, they are also the most likely to tense the throat. Therefore, the jaw should always be dropped when singing "ay" and "ee". The singer should avoid a grinning or too horizontal mouth formation for either one. The lips should be pursed slightly to encourage roundness of tone. The "ay" and "ee" are good for vocalizing bass voices in order to prevent a throaty, muffled tone quality.
The following points should be carefully considered when practicing vocalises specifically for achieving correct vowel production.

1. The tongue should be loosely forward in the mouth with the tip lightly touching the base of the lower teeth.

2. The jaw should be comfortably dropped open and should remain opened the same width for vowels on the same pitch and intensity.

3. The front and back of the tongue moves into various positions according to the vowel being produced. The front of the tongue is in its highest position for "ee" slightly lower for "ay", still lower for "eh", and relatively flat for "ah". The back of the tongue is in its highest position for "oo". It gradually moves toward the floor of the mouth as "oh", "a", "o" and "aw" are pronounced.

4. The lips should be flexible.

5. In general, higher and louder levels require larger openings, while lower and softer levels require smaller openings.

6. For equalizing the vowel sounds, strive to lower the jaw on the bright vowels "ee" and "ay" and all of the short vowels and use less mouth space when singing "ah" and "aw".

Vocalise 176. Sustain each vowel for full value. Do not anticipate the next syllable.

\[\text{Mak may mee mok moo}\
\text{Neh may nee noh moo}\]
Vocalise 177. Sustain each vowel for the full note value. Articulate the consonants quickly so the sound is not stopped. The vowel should occur on the beat. Add other consonants to the vowels for more practice.

Vocalise 178. If the "ah" tends to have a throaty quality practice the following. Strive to keep the feeling of the "ee" and "ing" in the "ah". Be careful not to pronounce the "ah" as "uh". This tendency is often found in the male voices.

---

Vocalise 179. A relaxed dropped jaw is important to keeping the "ee" vowel from sounding tight or shrill. Avoid any tension in the jaw. Do not draw the lips back against the teeth.

Vocalise 180. The same suggestions in vocalise 179 apply here.

Vocalise 181. To achieve the concept of elongation of vowels, practice initially by putting two vowels in each syllable. For example: "cle-ear".

Vocalise 182. "Eh" is frequently the ugliest vowel sound produced by an ensemble. It is often strident and harsh. Sing the following to round the "eh". Relax the jaw. Maintain approximately the same mouth position for the "eh" as for the "oo".

---

46 Ehret, op. cit., p. 39.
47 Loc. cit.
Vocalise 182. (continued)

Vocalise 183. "Oo" can be used to help smooth out the tone quality between two vowels. It helps relax the throat, larynx and tongue. In singing this vocalise, strive to feel very open in the mouth.

Vocalise 184. The vowel "a" as in sat is often too nasal in quality. Sing an "ah" as in father then gradually work to the "a" without moving the jaw into a smiling or horizontal position. Give a little more breath energy. Color it with the "ay" sound.

---

48 Ehret, op. cit., p. 39.
Vocalise 184. (continued)

\[ \begin{array}{c}
\text{ah-ay-å ah-ay-å ah-ay-å} \\
\end{array} \]

Vocalise 185. The vowel "ih" is often produced with a lifeless sound. Practice it by thinking it more colored with "ee".

\[ \begin{array}{c}
\text{ee-ih-ee ee-ih-ee ee-ih-ee} \\
\end{array} \]

Vocalise 186. There should be little mouth, tongue or lip movement from "ah" to "uh" or "ee" to "uh". Do not tighten the base of the tongue. The following is effective in preventing throatiness when producing the "uh" vowel sound.

\[ \begin{array}{c}
\text{ah-uh ah-uh ah-uh ah-uh ah-uh ah-uh ah-uh} \\
\text{ee-uh ee-uh ee-uh ee-uh ee-uh ee-uh ee-uh} \\
\end{array} \]

\[^{49}\text{Ehret, op. cit., p. 40.}\]
Many other vocalises for practicing correct vowel formation were included in Chapter IV of this text. The reader is referred to that chapter for further examples.

When the vowels are correctly formed, there should exist a freedom from excessive tension. The singer can then utilize the potential for resonation. The singer must be able to equalize the vowel sounds. He should strive to have the ability to sing a series of vowels in any order without radical change in resonation or vowel color. He should be able to add dark quality to bright vowels and bright quality to dark vowels so that they become more equalized.

If the choral group sings with an overly dark tone quality, the conductor should have them vocalize more with vowels that are formed high and forward, the brighter vowels. If the groups' tone is white or too nasal, vocalization with the darker or "warmer" vowels will be helpful.

The conductor must train the ensemble members both to hear vowel sounds correctly and to develop a sensitivity for the correct position of the jaw, tongue and lips when different vowels are sung. Two charts are included to assist the conductor. Figure 5 indicates lip and jaw position for vowels and diphthongs. It includes example words for easy reference. Figure 6 is "The Bell

---

VOWEL CHART

Lips protrude
Jaw raises

Lips are relaxed
Jaw drops

Hoot 13 (2)  
Hook 12 (2)  
Her 11 (4)  
Hope 10 (6)  
Haw 9 (6)  
Hoot 8 (7)  
Hot 7  
Hut 6  

DIPHTHONGS

Buy 7 + 2  
Bay 4 + 2  
Fear 2 + 11  
Fair 4 + 11  

Far 7 + 11  
For 9 + 11  
Pore 10 + 11  
Poor 12 + 11  
Now 7 + 13  
No 10 + 13  
New 1 + 13  

Tower 7 + 13 + 11  
TRIPHTHONGS  
Tire 7 + 2 + 11

Figure 5
BELL VOWEL CHART

Figure 6
Vowel Chart[^1] which was devised scientifically by Alexander Graham Bell as he researched the field while developing the telephone. It is an excellent practical device for helping to develop unified pronunciation of vowels so essential to choral blend and balance. On the chart the vertical positions of 1 to 9 and 9 to 17 indicate relative jaw depth for each vowel sound. 9 is the lowest jaw position. If the jaw cannot freely go to the proper depth for each vowel the tone quality will suffer. Lip protrusion is indicated by the horizontal position on the chart. Going from right to left, 1 has the least lip protrusion. Each number increases the lip protrusion until 17, which has the most needed for the forming of a vowel. These are relative position changes and should not be thought of as some definite, accurately measurable amount. Begin using the chart by locating the basic vowel, 9-3-1-15-17 or "ah", "ay", "ee", "oh", "oo". Next try 1-3-5-9-13-15-17 or "ee", "ay", "eh", "ah", "aw", "oh", "oo". Then study the mixtures such as 3 plus 5, plus "r", equals 4. It can be used to help improve correct vowel production in the following manner:

Vocalise 187. If a group sings a particular vowel with better tone quality than the others, begin vocalizing with the good one. For example, if they sing a resonant "oo", suggest they sing "oo", then without changing the jaw depth move the lip position to accommodate the

"ee", which is directly across from the "oo" on the chart. There will be a slight change in the position of the tongue. Practice gliding across the chart on each vowel, right to left and vice versa.

Vocalise 188. Words such as "glory" and "Lord" can be improved by realizing that the vowel sound 14 on the chart is a fusion of "aw" (9 and 13) and "oh" (15).

Vocalise 189. Practice keeping the rear of the tongue relaxed when producing 14, 4 and 11 each followed by "r". If the tongue is tense it robs the vowel of free space and poor tone quality results.

Vocalise 190. 12 is not often well-used in English speech. It is in the "aw" (13) family but is often pronounced as "ah" for richer tone. Practice first by saying "I will not" as 9, then try to add 13 "aw", then as 12, a combination of 13 and 9.

"Fine vowels uniformly pronounced across the choir make for a good choral tone."\(^{52}\)

Vocalise 191. To improve articulation of final "y", which should not be "ee", try pronouncing the final "y" as stressed sound; "y" is closer to "ih" and is un-stressed.

\(^{52}\)Diercks, op. cit., p. 9.
Diphthongs

The term "diphthong" refers to a combination of vowels or two vowels sounding in succession without a consonant between. It can also be defined as a compound vowel. It consists of a primary vowel and a secondary or "vanishing" one. The durational stress should be given to the primary vowel, with the secondary vowel being treated as a consonant and articulated just prior to release of the diphthong.

Each syllable should have only one basic vowel sound. When sustaining a diphthong do not anticipate the secondary vowel and shift vowel sounds gradually. If this occurs in the ensemble, the choristers will be at different stages and, therefore, singing slightly different vowel sounds instead of unified ones.

Suggestions for practicing pronunciation of diphthongs are indicated below:

Vocalise 192.\(^{53}\) The "ah" sound is the primary one, the "ee" the vanishing one. The "ah" should be sustained without change until he final consonant.

\[ \text{Nah—ee—t} \quad \text{not} \quad \text{Nah—ee—ee—t} \]

\(^{53}\) 192 through 197 can be found in Ehret, op. cit., p. 46.
Vocalise 193. ("oy" as in boy) Sustain the "aw" without change until the vanishing "ee". Pronounce the "ee" quickly as if it were a consonant.

\[ \begin{array}{c}
\text{Baw - ee not Baa-ee-ee-ee} \\
1\ 2\ 3\ 4 \\
\end{array} \]

Vocalise 194. ("ow" as in now) Sustain the "ah". Do not extend the "oo" or secondary vowel.

\[ \begin{array}{c}
\text{Nah - oo not Nah-oo-oo-oo} \\
1\ 2\ 3\ 4 \\
\end{array} \]

Vocalise 195. ("ay" as in pay) Sustain the "ay", not the "ee".

\[ \begin{array}{c}
\text{Pay - ee not Pay-ee-ee-ee} \\
1\ 2\ 3\ 4 \\
\end{array} \]

Vocalise 196. ("oh" as in slow) Sustain the "oh", not the "oo".

\[ \begin{array}{c}
\text{Slooh - oo not Sloh-oo-oo-oo} \\
1\ 2\ 3\ 4 \\
\end{array} \]

Vocalise 197. ("ew" as in few or new) Here the vanishing vowel precedes the fundamental vowel. Sustain the "oo".
Do not leave out the "ee".

Vocalise 198. Practice chanting or sustaining words or phrases containing diphthongs. These can be done easily on four part harmony. They can also be extracted from the musical literature being rehearsed.

Consonants

The vowels within syllables are meaningless unless the consonants are added. The singer must be able to articulate consonants quickly and distinctly without disturbing the vowel duration. Slow articulation of a consonant can cause tension as well as drastic alternation of a vowel sound. Since consonants stop the sound or partially block the vowel sound, they should be as
brief as possible. The only exception to this are the voiced con-
sonants "m", "n", and "l" which may be emphasized if called for
in interpretation.

Correct articulation is necessary to the development of good
tone production. If the consonants are not correctly articulated
the vowel production will suffer. If a consonant is produced with
tension the vowel that follows will also be tense, it will carry
over into the vowel. The choral conductor must have an understand-
ing of each consonant and its correct articulation.

The two major classifications of consonants are, voiced and
unvoiced. The voiced consonants achieve pitch, the unvoiced do
not. 54

Consonants must be precise stoppages, cleanly articulated so
that the words have definition. However, they should be quickly
articulated so as not to hinder the smooth flow of the melody line.
There should be a feeling of pressing the tone through the con-
sonant.

For articulation attempt to let the lips and tongue do the work
and not the jaw. Practice on scales or arpeggios first with only
a vowel, then with a consonant on each.

Vocalise 199. Jaw action is not needed on the consonants "d", "l",
"n" and "t". Articulate these consonants with a
quick movement of the tip of the tongue.

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54 For a detailed discussion of vowel classifications see
Pfaus, *English Diction for Singers*. 
Vocalise 199. (continued)

\begin{music}
\begin{musicxml}
<scoreantaged><part><accompanying voice="true"><m>4\end{musicxml>
\end{music}

Lah lah lah lah lah lah 
Tah tah tah tah tah tah 
Dah dah dah dah dah dah 
Nah nah nah nah nah nah nah

Vocalise 200.\textsuperscript{55} Voiced consonants and the sibilants "ss" and "sh" should be articulated ahead of the vowel sound so that the vowel sound begins directly on the beat.

\begin{music}
\begin{musicxml}
<scoreantaged><part><accompanying voice="true"><m>4\end{musicxml>
\end{music}

\textit{May never look yet away}

Vocalise 201.\textsuperscript{56} Do not sing the consonant on the previous note.

\begin{music}
\begin{musicxml}
<scoreantaged><part><accompanying voice="true"><m>4\end{musicxml>
\end{music}

\textit{Not But}

\textit{me m-e m-e me me me}


Vocalise 203. Release final voiced consonants with a precise brief neutral vowel sound "uh".

Vocalise 204. Final "d's" within a phrase often tend to get lost.

Practice the following.

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57 Craig, op. cit., p. 6
58 Loc. cit., p. 6.
59 Ibid., p. 7.
Vocalise 205. The "v" is often lost when coming within a phrase.

Practice the following.

\[ \text{Re-ceive-(uh) him} \quad \text{of-(uh) love (uh)} \]

The following exercise particular action of the articulators.

Vocalise 206. Consonants articulated with the lips.

\[ \text{bop} \quad \text{Bob} \quad \text{burn} \quad \text{bow} \quad \text{past} \quad \text{pop} \quad \text{pent} \quad \text{way} \quad \text{wand} \quad \text{mop} \quad \text{mob} \quad \text{morn} \quad \text{when} \quad \text{whip} \quad \text{wasp} \quad \text{want} \quad \text{bop} \quad \text{Bob} \]

Vocalise 207. Consonants articulated with the upper teeth and the lower lip.

\[ \text{fit} \quad \text{fill} \quad \text{fall} \quad \text{fair} \quad \text{food} \quad \text{soft} \quad \text{off} \quad \text{laugh} \quad \text{vow} \quad \text{view} \quad \text{vast} \quad \text{verse} \quad \text{grieve} \quad \text{browe} \quad \text{voice \ of} \]

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60 Craig, op. cit., p. 8.
62 Ibid., p. 129.
Vocalise 208. Consonants articulated with the tip of the tongue.

Vocalise 209. Consonants articulated with the tongue and upper gum area.

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63 Trusler and Ehret, op. cit., p. 141.
64 Ibid., p. 113.
Vocalise 210. Consonants articulated with the tongue and hard palate.

Vocalise 211. Consonants articulated with the back of the tongue.

Vocalise 212. Sustain the vowel as long as possible. Do not close into the "r" when singing a sustained tone. A very useful device for correcting this tendency is offered

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65Trusler and Ehret, op. cit., p. 164.
66Ibid., p. 175.
by Christy. He suggests that the singer imitate a Southern pronunciation.

To achieve clear diction, a balance must exist between the vowels and the consonants. Overemphasis on vowel sounds may result in beautiful choral tone, but the text may not be understood. Because of their sustaining characteristics, the vowels tend to predominate. To meet the need for balance, the consonants must be exaggerated in terms of intensity. The emphasis must be on precise articulation not on extended duration of consonants.
CHAPTER VI

RECOMMENDATIONS FOR UTILIZING

THE SELECTED LIST OF VOCALISES

The selected list of vocalises presented in this study provides the choral conductor with an excellent source of information regarding fundamental vocal teaching skills. It presents a compilation of a variety of practical vocalises from which the conductor can select according to his own musical tastes and skills, as well as to the level of his singers and the demands of the musical literature.

The conductor must first be able to diagnose the needs of his group according to their vocal experience, age, ability level, rehearsal time and performance requirements.

His knowledge of the vocal potential of his singers is essential. This calls both for an understanding of voice as it may develop normally in a singer who has no unusually poor habits and also the ability to care for the vocalist who presents special problems.68

He must have a clear understanding of tone quality and have a concept of the choral tone he hopes to obtain before he can determine the means of achieving it. He must know how to achieve his concept of choral tone while developing and maintaining vocal freedom throughout the range, flexibility, endurance, resonance, ef-

for the conductor’s consideration when utilizing the selected vocalises.

1. Vocalization should occur in each choral rehearsal. It must be consistent over a period of time to be beneficial.

2. A 5 to 10 minute period of vocalization in the rehearsal is generally sufficient. This time can be shortened or lengthened according to particular circumstances.

3. Vocalization need not occur only at the beginning of the rehearsal. It may be effectively utilized at other points during the rehearsal for relaxation of tension, changing attitude or focusing attention on a particularly difficult passage of music.

4. Diagnose the vocal needs of the singers in the particular ensemble.

5. Diagnose the vocal requirements of the musical literature.

6. Have an aural concept of the choral tone you wish to achieve. According to Howard Swan,

   "A conductor who is serious about the business of building his own choral instrument will develop the sound which he wishes to hear first by listening, then by analysis and by teaching particular vocal and choral skills." 70

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70 Decker and Hereford, op. cit., p. 41.
7. Select and plan combinations of vocalises based on your diagnosis. Keep in mind both the improvement of specific difficulties in the literature and the long term goal of developing good singing technique.

8. Consider whether presentation of particular vocalises will be to selected singers, sections of the group or entire ensemble.

9. Try vocalises yourself before attempting to conduct them in rehearsal.

10. Strive for variety within the individual vocalises and in the combinations of varying types. Any vocalise can become stale and offer diminished returns if not varied and kept interesting. Try to prepare several examples of vocalises directed toward a particular concept.

11. Too much emphasis should not be placed on any one vocalise. A balance should exist among the various elements of vocal production if coordination of the vocal apparatus is to occur.

12. Begin vocalizing on descending passages to prevent carrying the heaviness of tone and frequent tension that occurs in untrained vocalists as they ascend in pitch.

13. Begin vocalizing in the middle range of the voices. Gradually work toward extending the range.

14. Any of the vocalises can and should be used with varying tempos, keys, dynamics and rhythms.
15. Sustained vocalises can generally be used in 2, 3 or 4 part harmony. In addition to developing a particular element of vocal production, this will be useful for practicing ear training, blend, balance, unity of attack and release.

16. Continually relate the vocalises to the choral literature being rehearsed. When possible extract vocalises directly from the literature.

17. All vocalises must be done musically as if they were miniature compositions to be performed.

18. Use imagery when possible to stimulate the imaginations of the singers and direct attention away from the vocal apparatus.

19. Conduct vocalises in terms of attacks, releases and dynamic variation to help develop the concept of unity so important to an ensemble.

20. Watch the progress of the individual singer. The conductor must realize that not every exercise will be beneficial to every singer. Be alert to individual difficulties. It may frequently be necessary to organize sectional rehearsals or even individual sessions with a singer to check individual growth.
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RECOMMENDED BIBLIOGRAPHY
FOR FURTHER RESEARCH

Books


Articles


Unpublished Material