

Monday, July 13

3-6pm

Players: Darrell	Casswell	—	HORN	(calgary)
Andy Andy	Brian	—	TUBA	
Matthew	Anderson	—	BASS TRB	
Paul	Bower	—	BASS TRB	
Larry	Issacson	—	TRB	
Paulane	Borgen	—	TUBA	
Sally	Nelson	—	TRUMPET	

Discussion: Why a bass trb? Tenor w/ Large Bore?
Should play all, but simply emphasize
bass end of horn

Teaching Concepts: Music as an art form
Dealing w/person — not the horn
Brass — flesh & blood reed
Physical Differences —
Brass VS Keyboard

Resonance built in nothing else
Horn won't resonate between partial
Brass — must hear pitches in horn
— recall

— musical concepts
Vibration must come from LIPS
LIPS = Vocal Cords
↓ different from Woodwinds

Brass — must think as singer
— conceive sounds — recall & concepts

Horn must respond to a frequency & amplify it

As works w/ player — not the horn

↓
mirror of thoughts

Don't need great consciousness of how to do it
- Think of sound and result
Play down mechanical and of it

Must train brain listen to notes & conceive them

Child — curious mind

Adult — ability to learn & gather info
- series of sensors to brain
eyes, ears, etc.

Imparting knowledge — motor systems } not the same
(learning) — sensory systems }

↓
In playing: Imparting = Playing
Learning = Listening

Issues Statements } same part of brain
As is Questions }

Computer area of brain controls fiber groups
→ Subconscious

Must think positive thoughts
- not a worried brain

Tissues respond to thoughts

Self-Analysis does not work
order product & get out of way
brain will handle it at computer level

Human machine - very complex
Computer Level of brain makes it simple
Simple set of controls for very
complex machinery

Human Body - don't analyze
- just order products

Brain = huge $\int$ - people have trouble playing

Brain Concepts is $\int$ - ordering of product
think of end, not means

7th } Cerebral Nerves
5th } { Motor Nerve > both are 1-Way Nerves
Sensory Nerve

Playing = Positive Statements

AJ Teaching - how to think in art form

Embouchure & Brain Signals Lips
Lips = Vocal Cords

How it sounds, not how it feels

Don't correct wrongs, only think about
what is right

Audy
Brian
(TUBA)

24 yrs. old

5'10"

12 yrs. tuba

Washington $\leftarrow$ (NU) $\leftarrow$ (U. of Ind.)

Prokofiev 5th Excerpts (Book)

Tuba - h_1 $\frac{f}{l_0}$ l_0 pressure

Tpt - l_0 $\frac{f}{l_1}$ h_1 pressure

B.g. Breath = Considerable Expansion w/
Lots of Air into Lungs

Low notes take a large, continuous flow

Tuba f/l_0 rates $\rightarrow$ $\begin{matrix} h_1 \\ \text{low } f \end{matrix} \begin{matrix} p \\ p \end{matrix} = \begin{matrix} 10 \\ 140 \end{matrix} \begin{matrix} \text{liters per minute} \\ \text{" " " "} \end{matrix}$

Art Form - must play in public

Audition = pressure & tension & nervousness

Nervous = must narrow down to conceptual thoughts

Solfège very important for brass player

Embouchure - can't be taught mechanically

must be motivated musically

In order to order response, you must order note

"The Bear" - by memory
on horn, then on mouthpiece

Can't miss note if you send in correct

frequency
- must hear note first

Vaughn Wms. Tuba Concerto Excerpts

Unidentified Short Excerpt

Artist creates & structures phrase (interprets) (tell story)
Audience hears phrase

Q. Should ideal breath be silent?

A. Should sound like wind, not fricatives

Inhalation based on suction, not expansion

Boyle's Law -- reduced pressures

Must not work body to achieve breath

(Must use suction to get air in mouth)
(WORK w/ GAUGES) (Work w/ BAS)

Vital capacity = 40-45% of Lung Capacity

Average Person Can't Blow More than 3 lbs.
of Air Pressure

1-2-3 ozs. -- tuba > intra-oral pressure
1-2-3 lbs. -- Tpt

Q. Don Jacobs breathing method? -- not above a certain point? Lower breathing only? --

A. Don't Agree.

Tptt. -- low flow & hi pressure

Jacobs = 5 liter capacity

No -- removes part of potential

-- should not remove upper lobes of lungs

-- should use full potential

(A.) Must use follow-thru on inhalation, just
as in sports
Have series of segmented bellows for
respiration - nature provides

Nature protects - can move 1/2 later of
air regardless of position of body

Standing (posture - greatest lung volumes
(nature = survival))

Respiration - need weakness, not strength
Must not fight yourself

Body strength > NOT Equal
Breath strength

Diaphragm moves down to lengthen lungs

Ribs up
Diaphragm down > inhalation

Psychology of breathing - sucking air in
from room to lungs

~~Matthew~~
Matthew
Anderson
(Bass Trb.)

Libertyville IL
studies w/ Klienhammer
Jazz player

Tuba Etude

23 yrs. old
Helps
(Using only lower respiratory tract)

In our art form, we must be versatile & flexible

Must tell story
Elements of freedom & interpretation

Brass players must have great, extended range
- must play in all registers
- not only bass + trb.
- development of brain & tissues (embouchure)

Marcello Sonata Mvt.

Ages 18-20 = Max. Lung Capacity
downward curve after that - after Age 20
Elasticity
Capacity

About 45-50 yrs. old, loss becomes significant

Much better to have too much - not too little -
air - - - Esp. as you get older

Take air in - less than atmospheric pressure } Lungs
Blow " out - more " " }

When you sit, you should "stand" from hips on up
- Leave curve in lumbar arch

When you alter vertical position, you alter
rotation of ribs for inhalation

Be "tall" when you sit

Large Breaths = Max. Suction

Large Quantity / ^{Min. Friction} Decreasing Strength

* I mvt. ^{ONLY} Breath - NO Sequential Breathing!
- I smooth mvt. (only)

Simple thoughts initiate physical response
- gets too complex when you analyse
Key = Quantity, not velocity, in breathing

Must mentalise while playing - message to lip
- control panel in brain } to overcome
- player piano roll idea } nervousness

Stimuli & Conditioned reflex idea

- motivation as an artist
- "lie" to audience - to forget nerves or discomfort
- corrects the problem, by using musical ideas
- not technical

Imitation > Important Learning Tools
Creative Thinking

Adjust Embouchure by music - not muscles
- feedback intervenes
- Product (sound), not mechanics (mouth)

Must hear excellence & try to imitate it
- Go for the product
- Simplifying process

Reflex response to stimulus
- motivations based on end product

Learn to control muscles, by learning the music (end product)

→ let your brain handle the complexities
Go for outcome, not each ingredient: Simplify!

Q. Is it bad to develop muscles? Bad for

A. NO — your playing?
 bellows = respiration
 combat = athletics
 childbirth = defecations } 3 uses of muscles for innervation
 Bellows system for brass playing
 Not combat strength uses
 Diaphragm used 24 hrs. a day all your life
 - various uses
 - strength = muscular uses
 - weakness = bellows

Minimal Motors — as skills develop, brain eliminates
 extraneous mts.
 - only essential mts. remain
 - crudities left out

Q. Where does Bud: top level player — get his
 motivation, stimulation?

A. He loves music — concentrates on playing
 concepts. Very Intelligent: how to sound,
not how to do. Inspires others. Concentrates
 Provides stimuli in brain for reflex
 response.

Q. No specific embouchure? Bad habits? Poor Sound?

A. Never correct bad habits — but learn new
 good habits. Don't fight old habits —
 form new habits. Can't correct old
 habit — must change motivations. Strangeness
 permits change. Don't analyse, correct, or
 fight — simply institute new ideas.

Activate Imagination of Song
- less emphasis on mechanical aspects

Always develop music by sections

- repetitions on sections
- don't just "run-through" top to bottom of piece
- seek out easy & familiar passages
 - work less hard on
- pick out difficult passages
 - repetitions
 - ear training & recognition (Solfege)
- improvements must take place in brain

Accumulation of lactic acid in muscle = fatigue

- playing can then break down
- stop & rest - don't abuse lip
- stop, so as to not cause damage.

Must protect ends of phrases

- be comfortable: take a breath
- breathe before you get into an emergency state

Haydn #1 Concerto (Horn)

Shortness = how much vibration in lip

→ NOT done by tongue

Vowel = sound

Consonant - tongue used to stop/start sound

Tongue = articulation

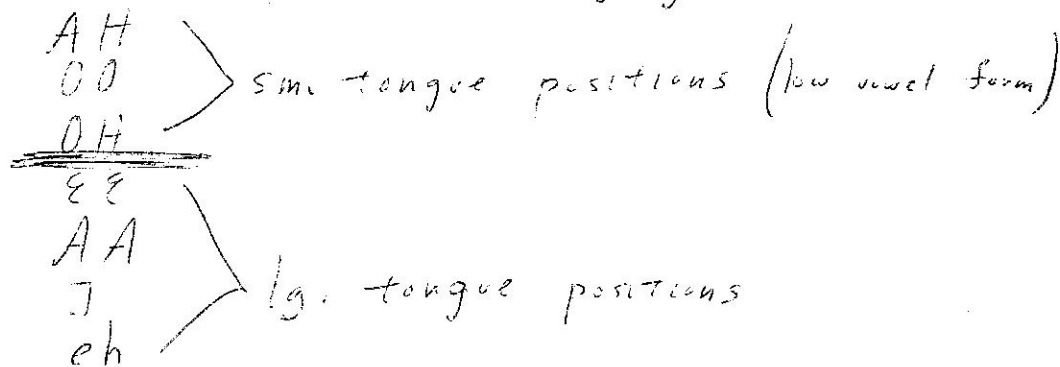
- must not exert pressure
- must not get in way of sound
- must not push for closure

Must motivate vowel, not consonant

- use consonants as in speech

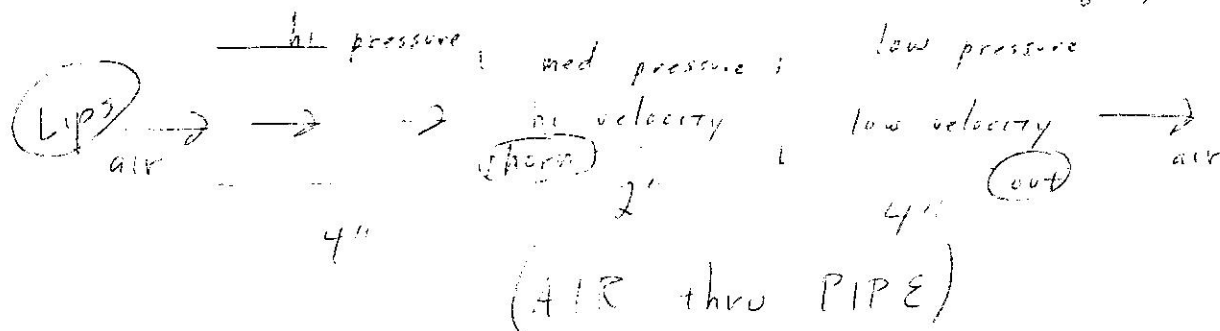
- minimal contact

- pure diction, as in language



Speech - Diction - Language

- best tool for work on tongue/articulation



Tongue can make "kink" in fuel (air) line to embouchure

- must keep relatively open

- don't hold tongue too high

- out of way

- keep low vowels dominant

Increased volume of air - not pressure

Q. Can permanent damage be done to lip by

A. NO playing too much? → build up pressure & resistance & block.
(NOT US) function of 7th cranial nerve, but →

No permanent damage from playing

Q. Mouthpiece practice?

A. Very valuable. Can cut out a lot of bad, old habits - by leaving horn out of it.

Mouthpiece alone removes acoustical laws of instrument - permits change & introduces strangeness. Connects tissue in response to thought.

Objections? - Altered Acoustics

- ^{not} a serious drawback

Lips = lg. circular fibers & many sm. groups of fibers
Must use mod. mouthpiece pressure to isolate fiber group
 - to focus buzz of lips is necessary
 - isolates region of vibration

Yes - use mouthpiece for beginners also
 - to start pattern

Q. Views on long tones for warm-up?

A. Long Tones good when needed. Must balance musical diet. Long Tones & Intervals very important.

If you play a lot of long tones, then you don't need to practice on them.

If you play a lot of marches, calls, etc. - then you do need long tones.

Long tones give stability - but not a fine, flexible embouchure.

Wednesday, July 15

3-6pm

Paul King Instrument (detachable bell) (TEXAS)
Bauer (OHIO)
(BASS TRB.)

Start on daily warm-up procedure

- slurs/glissandos - on various partials
- intervals
- Harry Janos excerpt

Can move pitch up & down on brasses

- loses quality, resonance & dynamic range
- can extend range in this manner
- flipping up or down
- A practical tool, but must be used sparingly
- loss of tone quality

Must get largest output in sound for input of effort into horn

Vibrato = Pitch averaging & Output fluctuating > Therapeutic Tool

Prepared Solo Piece

Nerves influence phrase lengths on brasses

- tension reduces breaths
- must prepare in advance for this by allowing extra air --- protect ends of phrases

- for auditions or recitals

End of breath = increased body tensions

- less comfort w/ deflation
- avoid running "on empty" lungs
- creates many problems

Must adjust volume levels without altering quality of tone

High notes = fast vibration } minimal differences
Low " = slow " } in strength

Embouchure must reach certain position / shape
- to vibrate certain frequencies
- NEVER stabilize an embouchure
- must make large changes over various ranges on horn
- free approach to musculature
- stabilize sound, tone, product, end result
- NOT embouchure

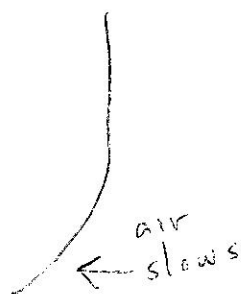
Length, Thickness, Tension & All Change Drastically with different tessituras

Age 24 - 6' tall - basically healthy (Paul)
Shallow Breather - Big Tongue - Big Tonsils
- esp. in high register

After Age 25 - Lung Capacity Decreases
- Many players (horns) quit at age 40 or 45 because of this

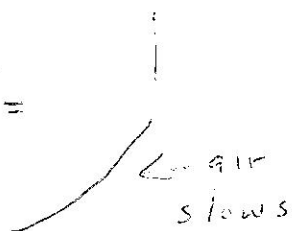
Problem is NOT Overbreathing
" IS Over Pressurization of Air

Sperometer
Curve =
(normal)



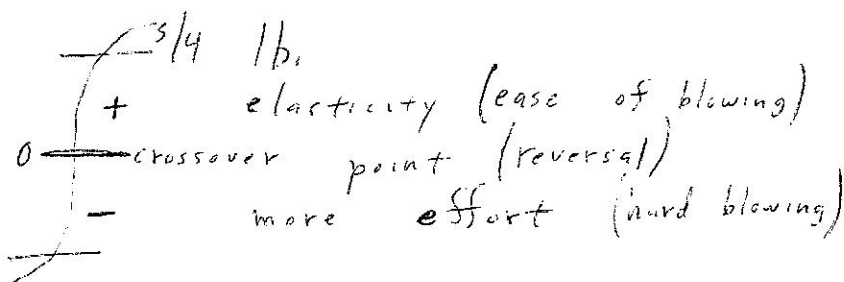
→ 80% of air in 1 second
→ 3-4 seconds for the rest
→ residual air not usable

Asmatic
Curve =



50% out in 1 second
Very slow for the
rest
Large unusable amt.

Relaxation
Pressure
Curve =
(no blowing)
(stretch only)



Pressure against larynx feels like "too
much air" --- a fallacy

Stay out of negative pressure curve by filling
up with air in advance
- avoid tension in body
- avoid 1/2-empty lungs

Standing up - biggest lung cap.
Lying down - smallest lung cap.
→ So - SIT TALL! - when playing

Embouchure Segments: Causes "Rattle" in Tone
- can be caused by tongue in way
- " " " " thin air column
- " " " " crowding air passage
- speech therapy will fix

Shaping of tongue → SM = "key"
LG = "hoh"

feel change in tongue

SSS = pressure
changes in position & shape & size of tongue

Use of diction to correct airway maladies

- NOT embouchure
- retrain phonation of vowels & consonants
 - to increase airway opening
- shaping aspect of tongue
- bring positions into consciousness
 - closed & open shapes

All new skills involve crudity at first
- development by repetition - refinement occurs

Learn by imitation & intuition

- don't worry about what tissues are doing
- go, instead, to control panel in brain

Sally Nelson (TRUMPET) No Need to change shape of tongue when going into upper register

→ Oregon Symphony --- 5'4" tall --- 3 1/2 liters

Etude Warm Up (Chinkwitz) (plays Bach Tpt.)
Leonore Tpt. Calls

Sm. Lungs = Short Bow → must change more often
- work with max. air amt. for greatest ease

high range - add 1/2 work effort involved

Bad Sound = Bad Embouchure
Good " = Good "

Don't prepare chops > Brain orders tissues
Do prepare sound

Keep art ~~form~~ factors of playing horn dominant over physical
Study music - not muscles
- psychomotor activity

Pauline Shiny Σ^b Yamaha Tuba

Boeykens
(TUBA)

Normal IL Studies at U. of M.

Romanza - Vaughn Williams (warm up) (Nervous)
Tuba Concerto

how to overcome nerves - Solfège (mental focus)

- when co-ordination goes, must conceive sounds mentally

- when uncomfortable, must 'lie' to audience

- worry & brain analyses all incoming info

- when nervous - leave all awarenesses behind, & tell a story

- Tell MELODY (songs), not MALADY (chops)

Broca's area of brain - involved in tuba playing

- must not ask questions > uses same area of brain

- must issue statements

- NOT meaty, but brain

Ignore mistakes - instead, focus in on what you're now doing

- don't worry about "what just happened"

- think ahead - think about music & melody

Boo-boo = Clunker = Clam

- result of not hearing pitch in advance

Imitation — powerful tool — Must Program Brain
↳ teaching & learning

"Attack" — a misnomer

- we don't "attack" a note, we start a note by starting vibration
- motivation is sound or beginning, NOT attack

Bad notes can be made into good ones

- silence can't
- must start somewhere

Must develop mental focus

- ignore difficulties, nerves, etc.

{ Imitation
tell a story
creative thoughts
must have a message

Sense of message — must have story to tell to audience

- thoughts in motor systems to influence external environment

- NOT sensors to pick up info

- must have MENTAL FOCUS

- imagination

- recall

- intuition

- NO Analysis! NO Components!

- Go to brain & order a message

Vaughn Williams Concerto — 1st Mvt.

Always go for finest quality, finest presentation.
Rattling — caused by embouchure segmentating (sections) (relax)

- chops vibrating at different rates

- too small opening & too thin air column

Must play with thick column of air

- use vowel Oh or Ah
- tongue small & down
- to avoid rattling & segmentation
- get tongue out of way

Use thick, quantitative air at all times

- "large bore fuel line" air column

Change lips - NOT air column

- high register = oboe reed
- low register = contrabassoon reed

1st note (after silence) has to be your best

- most important of all

Develop brain, not lips

- lips develop with music
- work only based on musical thoughts
- not mechanics

Q. Segmentation - causes?

A. Embouchure set for too high a note
Vibrating surfaces relax too much
Chops not sent for right frequency

Subliminal causes

Protracted - Lower
Retracted - Higher } Embouchure Settings

All Pitches in music change in some way

- don't stabilize pitch sources
- stabilize product

Q. Syllables for multiple tonguing?

A. TA-TA-KA TA

Conceive syllables, as in language
Low vowel form - to get tongue out of way
of embouchure
- never starve embouchure

Q. Shallow mouthpieces for ^{7pt.} Beginners? for high notes?

A. NO. Should have thorough grounding in mid-range for start. Develop musicianship in comfortable range. Might try narrow rim, rather than shallow cup. Try a normal cup - averaging process. Think of sound - not shape of lip. Any mouthpiece has potential of range.

Q. Braces on brass players?

A. If sharp protrusions - cause a lot of pain. Smoother ones not so bad. Avoid high range - go to mid & low range --- or to a larger mouthpiece --- or a lower instrument. A bad handicap. Some bad pathological problems can develop - Cool it! Be careful not too cause pain or damage lip. Use of beeswax or cigarette paper possible. If a flat band - OK. If protrusions - be very careful.

Q. Range of mouthpiece VS Range of Trumpet?

A. High on mouthpiece, some notes won't respond - short mouthpiece length, so cup over with hands to extend. Otherwise - no differences.

High range should occupy about 20% - 30% of practice time. General Range more desirable. Must balance Protract/Retract Lip Muscles. Reshaping of Fibers. Need Full Range, with dominance of mid-(Middle) - Range.

"Bugle Effect" sometimes occurs on tpt. mouthpiece.

Q. "Diaphragm" Vibrato?

A. Vibrato comes from many sources - concept of sound. Fluctuating column of air - NOT a fluctuating diaphragm. Think of sound of vibrato, NOT method. Diaphragm = motor nerves, not sensory nerves. Abdominal wall moves in a "diaphragm vibrato", as do many other parts of your anatomy. Start with sound of vibrato - use oscilloscope (multiple senses) to see variations - use Conn strobe → see dynamic & pitch changes. See & hear vibrato: (1) Sound

(2) Fluctuation of air column
- Lip
- Jaw
- "Diaphragm"

Must have concept of what vibrato sounds like. Never isolate anatomy to produce vibrato - has many sources. Should be able to turn vibrato OFF & ON at will - should be conscious of it.

Friday, July 17

3-6pm

Q. Recommend perf. for students if on a
diff. instr.?

A. Yes - Tremendous crossover - style, phrase, etc.
Or, may sing - to get musical points across.
Student should get concept of sound &
phrase, not methodology of how to perform.

Scott Age 25 6'2" healthy
Sorenson
(BASS TRB) Warm-Ups

No need for set warm-up procedure

Warm-Up = Practice

Brass WarmUp is not the same as an
athletic WarmUp

- no need to warm up muscles

- increased elasticity, etc.

Lip supply (Lip) of blood good 24 hrs. a day

- does not "warm up" as such

Start each day with lyricism & inspiration

- no "push-up & sit-up" regimen

- constant excellence & competition

- form concepts

- imitate

- improve upon

Playing = contraction states of selected
muscles

Make each note your very best

- enter into competition with the
finest artists

- copy & imitate artists; form concepts

- form your finest quality of sound

Dramatic & Lyric Sounds = Same fine

Lyricism = Always your basic sound ^{qualities}

- best sound

- most sound with least effort

Dramaticism = takes more effort

Hungarian March (Rachmaninoff)

- nervousness = tightness in throat

- take 2, 3, 4 deep breaths, to relax

- must hear each & every note

- great clarity

- good quality on each & every note

Long tone = Long loaf of bread with same fine qualities thro-out

Short notes = small slices off loaf

- each have same fine quality

Answers lie in brain, not in meat (tissue)

- must hear & imitate sounds

- don't think of "how to do it"

- conceive & imitate sounds

Brain = Player Piano Roll

Issue = Piano Keyboard > various relationships

Dominance on quality of Music Played

- NOT methodology

Always an awareness of communicating

- psychomotor activity

- not sensory phenomena

- "paralysis by analysis"

Playing = motor systems > Can't do both at

Listening = sensory systems same time

- Control products, not methods

Reflex response to stimuli

- provide stimulus (only)
- don't involve yourself in muscle anatomy
- control panel in brain will control muscles in response to stimulus

Tongue can close off column of air

- starves embouchure
- makes "kink in fuel line" > touches teeth
- epiglottis or tonsils can also do it

Low register needs quantity of air

- not power
- not pressure

Breathing thru straw to increase air supply

Yawn = relaxation pressure

Inhalation = Suction

- don't substitute mechanical muscle changes for the real thing - inhaling
- body can lie

Mouthpiece playing - matching pitches

- removes powerful source of stimulus for bad habits (horn)

- pick out hard spots, & do on mouthpiece only

Larry Tuba Mirim (Mimic)

1st Trb. - Canada

Isaakson
(TRB)

Nervousness approx = to fright

- goes into hysteria (extreme)
- rapid, shallow breathing → hyperventilation
- Counter by deep breaths, slowly → hypoventilation
- minimal effort
- keep tension to minimum
- sit tall
- largest air potential

Quantitative breathing > to counter nerves
Deliberate Relaxation → Rapid Pulse

Nerves = Danger = Saber Tooth Tiger Syndrome

Don't ask questions > Can't do both simultaneously
Issue Statements

Martin: "Brelude for Trb."

- sounds like 1812
add buoyancy to tones using "H" consonants
- "ha-ha-ha"

Reduction Phenomenon in Abdomen = Support

- NOT muscle activity

- wind on each note

- not just tongue

Can't do "ha-ha-ha" attack with shallow air

- can't do if forcing air out of lungs

- must have adequate supply of air in lungs

- don't go into negative curves

"Bolero"

- hear pitch before you start

Q. Straw breathing?

A. Changes motivations. Alters program. Eliminates friction - working with air. Air can't be felt below larynx - only in mouth. To feel mts. of air - not air apparatus, such as expansions & contractions. "Breathing to Expand" NOT "Expanding to Breathe"

Q. Rattling in notes?

A. Problem is segmentation of lip - sections of lip vibrating in various patterns. Relaxation of small fiber groups. Usually, embouchure is set for too high a note, & reduction of airway... too small a column of air. Embouchure = a mass of small fiber groups = Orbicularis Oris. Small Mouthpiece pressure used to shape action of small muscle groups in lips. Isolation of selected areas of "chops" in done by mouthpiece. Embouchure under control of brain, based on thoughts of pitch. Embouchure varies according to pitch - stabilize TONE, not embouchure. Embouchure FIRM, not relaxed.

Q. Applications of AJ teaching to woodwinds?

A. Certain principles of breath apply. Many WW players use lots of pressure & very little air - bodies in contraction states. Using athletic muscles (non-respiratory) for respiratory purposes → always causes problems. Must use bellows system - not great strength. Pressure causes various closures & stabilizations; can't exhale or tongue very well. Must use large air motions. Hypoventilation can be forestalled by a few extra inhalation/exhalation procedures: purposely hyperventilate. Sing alot for WW players - to demonstrate. Imitation is a very powerful tool. Reeds replace Lips.

Q. How much pressure is used in playing?

A. Sufficient to get product. Ease breeds success - excess gets in the way -- same as in athletic skills. "Minimal Motors" - in physiology. Crudities disappear with increasing skill - so they don't interfere. Simplify rather than making more complex. No massive contractions required to play instrument.

Q. Clinical Bellows - for training?

A. Is of value - but can't always equate flow rates.

Q. How to train for tonal memory?

A. Learn to hear in silence - practice recall. Hit note on piano - wait - then try to sing note as remembered. Memorization of sound. Brasses need good relative pitch. Solfege is a big help... very valuable. Recognition of pitch & contour - trains the brain - symbols turn to sounds.

Q. Recommend any S.S. or eartrain tests?

A. Solfege most important - more so than melodic, rhythmic, or chordal dictation. Need recognition of sound & tone. Need pitch recognition. No such thing as "tone-deaf." Can be trained to recognize patterns. Can develop good relative pitch. Start simple & advance as called for.

Q. Recommend Mouthpiece Rings?

A. Not always - presents a tough challenge. It is much harder to play, than on horn... must not transfer add'l. work effort back to horn. Can't feel lip vibrating on ring... but not on horn.

Paul Repeat Perf. (Rattle in tone)

Bauer
(Bass Trb.)

Can't rattle today. Problem corrected?
In a condition of transition now.

Q. In a slur, is there a break in airstream?

A. Try to keep continuous flow. Ascending slurs may need to be modified. Descending slurs can keep nearly continuous flow. Valves make sm. breaks, not serious. Still nearly continuous.

Q. Why always use music, instead of drills, to correct problems?

A. Must always think in musical terms - must train brain as a storyteller; no push-ups or sit-ups. Mediocrity = sounds without motivation.
40% drill form > Practice times
60% art form

Q. Can you increase vital capacity?

A. Only up to what nature gives you. Can learn to use up to full capacity. Use medical bag to motivate breathing larger quantities.

Saturday, July 18

9:30 am - 12:30 pm

Mike
Pendowski
(SAX)
(alto)

Jazz Sax Player
Warm Ups (scale patterns)

Jazz Excerpt (solo) - Improvised

Age 23

Played 12 years

Also plays: Fl Cl Bsn Tpt Trb

Has trouble playing long phrases

= wants to go 12 bars

- needs to take in more air when playing

- must not immobilize lower abdomen

- must not use only "diaphragmatic" breath

- cuts out 45% of air potential

- must not have innervated, contracted abdomen

- increase of internal pressure

- diaphragm holding down; closing off

- stiffness in upper respiratory tract

- antagonistic musculatures

Respiration based on vertical breathing

- great expansion potential

Pauline Repeat Performance - different tuba today

Beigen
(TUBA)

Etude

Age 18
from Normal IIL

Played 5 years
5'9" or 5'10"

Etude on tube, then on mouthpiece rings,
then on tuba again

Song > stimuli for
Wind brass players

Don't control tissue - think of sound & tone

Reduce playing to simplicity of sound
- not complexity of body functions

Air = Velocity

LOUD = fast

Soft = slow

> NOT a pressure phenomenon

Song = 85% - 90% of playing music (sound)

Q. Ring work kept within 1 octave?

A. Ring work, direct - much more effort involved - more resistance. Don't want to transfer extra work effort back to horn. So - keep in small range - minimizes difficulties for embouchure. Don't carry resistance & back pressures back with you to horn - only carry buzz back.

Sara Taking course for credit. 5'8" - 5'9"
Sim. ladies plus flute sm. lungs. Why?

(FLUTE) Bonas Etude & Exercise Book

- Solfege method book

Played 15 - 18 years

Springfield, Ohio

Good to be a little nervous

- too much no good

Blocking too much in internal cavity

- think of singing on "Oh" vowel

- don't think of tongue

- think of Beverly Sills sound

About a 4-liter lung capacity
Friction in pharynx

Need to open throat more
- no more friction in throat
More use of breath as wind

- not merely an adequate supply
- need to have excess; a "reserve"
Need freedom of moving air
- think "frog & tip" motion

Sense suction in inhalation

- biological framework

- Boyle's law

- mechanical principals

Air = fuel supply

Q. Easy to use your principals in slow melodies,
but not in fast technical work. Why?

A. New habits must form in slow playing, can't
play faster than you can think. Must
know music - would work in fast music
if it was memorized - if known very well.
Acquiring info = question.
Imparting info = telling a story.

Q. Student developed M.S. Still to play?

A. Depends on which muscles are affected.
Could be good therapy: breathing & mental
attitude. Observe carefully. No undue stress
or challenges. Watch for deterioration to
set in. Provide agreeable, mild challenges.
Must leave norms. Must individualize.

Q. When I take 2 consecutive big breaths,
I have trouble relaxing, why?

A. Must do away from music at first. Stage
of crudity. Take slow, quantitative
breaths. Do exercise without instrument.
Break into slowly.

3
Exercises: ① To
(away from
horn!)

Elevate Rib Cage --
Gradually Raise hands over head & stretch
(as you fill lungs to count of 5
- slowly breath in
Drop arms when lungs full
Exhale slowly to count of 5
May Gradually reduce to count of 3
Must use diaphragm for these large breaths
Sm. breaths use only ribs
Then reduce to count of 1
- fast inflation

Fast replacement of air - a problem
- velocity is not primary factor
- think of quantity instead
- Order a large breath
- not a fast one

② Divide breath into 3 parts (think breath, NOT body)
- NOT Sequential breathing
- divide quantity into 3 parts
Then period of silence
- judge what you feel like
- expansion vs. air quantity

Let out air in 3 parts
Wait a moment between each "part" of air
Repeat the procedure

→ (3) 5/4 time

- exhale on beats 1-2-3-4 (slow)
- inhale on beat 5 (fast)
- won't hyperventilate

Then 4/4 time

- exhale $3\frac{1}{2}$ beats
- inhale $\frac{1}{2}$ beat

"Follow-Thru" - "Snatched" inhalation

is very important

Must not blow from diaphragm

- diaphragm can only go from low to high
- can only lower air pressure
- can not raise air pressure

Take air as suction with minimal friction

- not smoothly

Female vs Male Diaphragms: Different Function Potentials

Male = 20% more lung capacity

Females must get used to taking in large volumes of air

Don't confuse expansion with breath

- All breath has expansion

- But not all expansion has breath

(Redhead) Taking Course for credit

Sm. lady 5'4"

(FLUTE) Kujala student

Short Orch. Excerpt

- palpating while playing

Diaphragm not descending

Upper Rib Cage good

Q. Should all teachers palpate abdomens?

A. No - not without knowledge of structure & function. Must be aware of biology - or can do a lot of damage. Must also know psychology of function. Stick to blowing out matches & blowing open pages. Go for results, not machinery. May use anesthesia bag to see & feel air quantities. Don't go too much into structure - goes too much for analysis.

Q. Scar tissue in upper & lower lip - & new teeth. Notice expansion in both lips after playing. Lip goes dead after 15 minutes. Hit lips with multiple chain saw = Accident. (tuba player). What can be done?

A. Neurologically - lip is highly functional, although very damaged. Blood supply is very good to everyone's lips. Lips very sturdy. Holding activity in upper lip - primary function is in lower lip. Should remove mustache - this causes unequal pressure, padding, on mouthpiece. Tissue has recovered & regenerated. Must re-trace your musical steps - go back to easy music; avoid extremes & fatigue. Lips are in good shape - but, don't abuse. Play a lot on mouthpiece.

Q. Tightness in throat in high range. Why?

A. Due to lack of air coming up from trachea. Need large volumes in lungs.

Tightness due to Val Salva maneuver.
Need more air in lungs & trachea.
Must not pressurize your air.

Q. Breathing for grade school beginners?

A. Music is of 1st importance - sound, song, & phrase.
Concept of sound dominant. Breathing: simply have them yawn. Dealing with undeveloped respiratory systems. Don't want that whole complete long phrases - smaller is the capacity. Take in a lot of air. Emphasize sound, not air. Set good examples & encourage imitation. Fear excellence. Priority is good sound.

Q. Tonguing - velocity. How can be sped up?

A. Tongue has potential of stiffness. Must develop lightness. Emphasize vowels, & play down consonants. Consonants = springs to bring tongue to point of closure. Vowels bring tongue down, out of way. Motivate vowels, not consonants. Everyone has a different type of tongue. Velocity comes in diction - practice with speech & then transfer to music. Muscles can lock tongue in place - a disaster. Don't contract tongue. Have a weak, but precise tongue. Strength in tongue = slowing down. Activate sound.

Q. Mouthpiece Pressure?

A. Equal on all points - both lips. Mouthpiece must isolate all sm. fibers - both lips.

Q. Facial hair?

A. Mustache acts as cushion on rim - but does not isolate fibers. Better without for brass people - esp. tuba.

Q. Baritone & Tuba - both?

A. Good idea to learn both. Like piccolo, +pt. & C +pt. - same relationship. Do both. Ranges must crossover - full range on both. Try to use same rim for both; Same isolation.

Q. Air leaking thru nose when playing?

A. Nerve damage from tonsillectomy - soft palate not closing completely. Or - perhaps just a bad habit. Train to blow under pressure. Need to see if this is a medical problem - nerve damage. Sinus problems?

Q. Changing embouchure for low range? Pivoting?

A. Embouchures must be permitted to change. Never stabilize embouchure; only stabilize sound. Don't favor pivot system. Pivoting is sometimes over-manoeuvring - too crude & large. Pivoting: don't fight it, but don't help it either.