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PEDAGOGY AND SELECTED CONCEPTS

Teaching Style

Over his many years of teaching, Allard encountered students from a variety of backgrounds and stylistic approaches. He taught many of the same concepts to saxophonists, clarinetists and bass clarinetists. Some of Allard's saxophone students were purely jazz or commercial players, others focused on classical playing. The majority worked in both genres, often doubling on other woodwind instruments as well.

Allard developed a concept of sound production that was resonant, free of all unnecessary tension and capable of a great variety of tonal possibilities. In his words. "Art has to have variety. Unless a tone has variety of color and variety in volume unless vibrato has variety in pulse, you don't have art."[63](#)



His method focused on development of the embouchure, proper use of the air, flexibility of the laryngeal and oral cavities, and one's own tonal imagination. The approach allowed for a myriad of timbres to be produced. Students were encouraged to explore various colors and choose what worked best in any particular situation.

I found that he really taught me a way to make music in any style, in any one of a million different situations, from rock band to playing in a chamber ensemble, to a sax section, quartet, solo pieces - his approach to the instrument works no matter where you use it. I don't know that many other teachers are like that.[64](#)

Allard's individualistic approach to the saxophone allowed performers to express themselves musically. The goal of his approach was not mastery of the concepts, but using the concepts to better convey musical ideas.

The goal is to develop your own personal musical expression. Joe was so inspiring as a teacher because that was what he was about and what he was trying to guide his students to. As students ran into problems expressing themselves. then Joe would look into it---- That's when Joe would go into the process of playing (emphasis mine)[65](#)

Since Allard took very few formal saxophone lessons in his lifetime, much of what he applied to the instrument was based on his experiences with clarinet, experimentation with concepts utilized by other musicians. and research - what he liked to call "investigation_" He conversed with other musicians to gain new insights or confirm his conceptual views. In rehearsals and performances, he listened carefully to conductors and other musicians. "During NBC Symphony rehearsals, while the conductor addressed other sections of the orchestra, some musicians would be chatting among themselves. Joe would listen to the old man [Toscanini] to see what he could learn."[66](#) He observed performers on other instruments, analyzing their physical and musical approach to playing. He questioned them about things he did not understand, then experimented with application of their concepts on clarinet and saxophone. In an interview with Kenneth Radnofsky, Allard recalls listening to the quality of voice and articulations of actors and actresses while in

rehearsal for the Dupont Cavalcade of America show. "We had all the greatest dramatic stars, and we just played the background music. It was so wonderful to hear these people who were great dramatists, the way [they would speak] their vowels. It was a tremendous experience listening [to them]." [67](#)

Never content just with what others would tell him, Allard would engage in research in order to confirm or deny principles. He studied anatomy and physiology informally and associated with many people in the medical professions. Some of his students were studying for careers in medical fields and he often questioned them about physiological matters. Students speak often of Allard opening Gray's Anatomy of the Human Body and talk at great length about the various muscles and structures of the face, tongue, pharynx, larynx, and thorax. He was quite familiar with scientific principles of motion and force and applied these principles within his teaching and playing. Allard often quoted from works of philosophers, especially Socrates and Herbert Spencer. He read many books on singing and vocal production. Allard approached performance and pedagogy with a combination of all these influences.

His scientific and physical investigation did not however, lead to a mechanistic approach to the instrument. Allard's analytical approach was combined with a principle he called "inner-hearing" or "pre-hearing"; allowing the sound that is in one's mind to be the guide for tonal control and musical ideas. He first discovered this concept in an illustration from Herbert Spencer's First Principles. As Allard recalls,

The story is told of an artist who created a work based on a picture that was in his mind, what Spencer called the "inner world." And as it came out on canvas, the picture represented the outer world. If the outer world didn't coincide with the inner world, [the artist would] tear it up, throw it in the wastepaper basket and start all over again.[68](#)

Allard then made analogy to his own art:

So then I got the idea that you can play a melody you like. Perhaps you've heard it played on many other instruments; you may have heard Tommy Dorsey on the trombone or you may have heard some great jazzman, Stan Getz for instance, or you may have heard Thelonious Monk play it on the piano with his elbows ... but you've experienced a variety of ideas. You've heard this particular melody played in so many varied ways that by the time that you try to shape it in your own imagination, you have an idea in your mind of how you want this melody to be played - you have an inner world. And then, when it comes out of the saxophone, if the outer world doesn't coincide with the inner world, you can't tear it up and throw it in the wastepaper basket, but you can do it over and over and over again.[69](#)

This two-fold approach, the physical and the imaginative, led naturally to the aspect of individuality, since no two people have the same physiological or emotional structure.

His system was designed to help you discover how you might learn to apply your peculiarly personal set of chops, chin, teeth, tongue and throat to the ends of good sound, accurate intonation and precise rhythm. Given that development, the conceptual qualities could then be purely the creation of your own heart, head and ears.[70](#)

Each student was taught as an individual, and concepts were approached in a slightly different manner tailored uniquely to them.

... He also gave us all the strength to be different. All of us play different and certainly you know that Dave Liebman, Harvey Pittel, Dave Tofani, Ken Radnofsky and Paul Winter all play different. I think that's partly what made him a great teacher. If you look at some of the guys who studied with Marcel Mule, they sound as different as night and day: Daniel Deffayet, Iwan Roth, Jean-Marie Londeix, Eugene Rousseau, Fred Hemke, and Paul Brodie. I think that's what great teachers do - they don't stamp out copies, they cause us to grow into the best we can become. He stimulated our imaginations, he kept us all being idea people. I really think that was part of his legacy; he kept us all thinking, rather than doing it the way he wanted it.[71](#)

Allard believed strongly that there was more than one appropriate way to approach the saxophone. "The approach of

most of the teachers on instruments is that they ought to tell the right, the correct artistic way to play the instrument, and to me that is just a lot of hogwash."[72](#) To him, the essential and core principle was personal musical expression. He often told students that they had to find their own personal interpretation of the sound concept rather than work towards sounding like someone else. Despite that individuality, there is a recognizable quality of sound that Allard students possess. David Demsey elaborates.

When I hear Ken [Radnofsky] and I hear Harvey [Pittel] and I hear [David] Liebman and Mike [Brecker] and Eddie Daniels, I still hear Joe. I hear that focus - there's such a focus in the sound that you can just tell that somebody studied with Joe.[73](#)

Allard's lesson structure was as individual as were the players. Lessons were generally a combination of the scientific principles, informal lectures on anatomy, and anecdotes of his personal and professional experiences. These anecdotes, or stories as most students call them, almost always contained an analogy or metaphor. Many students had experiences similar to Kenneth Radnofsky:

What usually happened was I played a note at the beginning - a single note - then he'd say "O.K." and tell a story. About 30 minutes into the story, I'd think, "What's going on? What's he going to say?" At the end of 45 minutes, he would come to this magical point where I'd hit myself on the head; "Oh, why didn't I think of that myself? Why didn't I think of that before?" But it took him that long to get to that point; he had to tell the whole story. He had so many experiences to fall back on and had so many students' experiences to fall back on, that he always had great examples that would relate to specific problems. The last fifteen minutes would consist of us trying to implement it. But there was never any expectation that I would be able to implement it that day. He also had great patience as a teacher. So, he'd teach it to me, and he'd watch me practice it for a while, and then he'd say, "now go work on it and don't worry about it, you'll get it; everything will be fine." Sometimes it took two weeks, sometimes it took two years.[74](#)

Allard engaged his students in dialogue and took the role as facilitator, diagnosing a problem and then allowing the students to teach themselves. "He didn't tell you how to do something, he asked you what you wanted to do and helped you achieve it."[75](#) Though there was a teacher/student hierarchy, the roles were often reversed, the lines blurred. One student recalls,

If you brought up some subject that he didn't know much about, he would make an effort to find out about it. Or if you said, "Hey Joe, I just heard so-and-so playing at this club, you ought to go hear him." Joe would probably check it out ... He learned as much from us as we learned from him.[76](#)

In lessons, Allard demonstrated concepts for students, often on the student's own instrument, mouthpiece and reed, but he rarely played for an extended period of time.

The study of literature was not a primary issue for him, unless it happened to be a big issue for the student. Students would bring in solo works or jazz tunes; Allard used these as well as etudes as a means of getting to the physical and musical concepts. The solos and etudes were not an end unto themselves. "Diverse literature was not a focus of Joe's teaching. He had his pieces that he liked and he felt very strongly about them."[77](#)

Many students indicate that they worked on jazz tunes in all twelve keys as a form of ear-training or "inner-hearing." Allard often applied that concept through a different means to the classical literature as well. David Demsey recalls, "He would not let me play the Glazounov [Concerto] for him until I could sight-sing the whole piece. That took a fair amount of time, because it's tough; it modulates all over the place."[78](#)

Perhaps more than any other saxophone teacher of his generation, Allard inspired many of his students to become teachers themselves, in balance with their performing careers. Allard often recited a French quotation, "Enseigner c'est d'apprendre une deuxième fois" (to teach is to learn a second time). Many former students heed that advice; "I enjoy teaching and I don't want to lose touch with all these principles.... It keeps me involved with these techniques and keeps me evolving as a player as well as a teacher."[79](#)

His greatest contribution is that instead of leaving a legacy of disciples he left a legacy of teachers that

were eager to teach, and still wanted to continue to learn. And he left a legacy of great players who were inspired to teach, players who probably never planned on teaching, who have, concurrent with their careers as performers, become teachers.[80](#)

Some of these teachers indicate that prospective students come to them with the intent of learning Allard principles. David Demsey reflects, "I find more and more that people in and around New York come to me to get Joe's concepts. I'm not sure they want to hear me; they want to hear what Joe had to say to me."[81](#)

Breathing

Allard students often refer to his approaches to breathing and use of air as two of the most influential concepts in his arsenal. Despite the fact that he spent much time discussing the importance of both inhalation and exhalation, Allard considered the breathing process to be a topic that was over-analyzed by many wind instrument and vocal pedagogues. "By trying to teach one to breathe, you are providing a set rule of motions. I believe there is no art to breathing."[82](#) He felt breathing should be a natural process, inhalation and exhalation taking place without effort. Thinking about the breath causes restriction, by forcing muscles to act counter to natural principles. "When we try to do things that are unnatural more harm comes than good ... just focusing on the musical result you want will dictate how you're going to use your air."[83](#)

Allard believed that proper breathing was essential, but he taught it in a manner that used as few words of explanation as possible. The result was that the breath remained a natural occurrence, executed properly without thought and without exertion. He showed students the natural anatomical functions of the musculature involved and taught a few exercises to make the student aware of the breathing mechanism and process. Allard personally engaged in breathing exercises on a regular basis, and considered himself in good condition in this area.

I've known a couple of orthopedic surgeons and one of them once said that man's worse fault is the belt that he uses to hold up his pants. And he said in order to hold up your pants with your belt, you let your abdominal muscles sag to make it easy for the belt to hold the pants up. We all know the feeling; if we pull in the abdomen, the pants fall down It's very true. I wear a belt and I'm constantly pulling my pants up because I do these exercises every single day, and breathe properly at all times."[84](#)

Many of the exercises that Allard practiced and taught were based on yoga breathing. The exercise cited most frequently involves assuming a position lying on the floor, with knees raised high and heels on the floor close to the buttocks, then raising the back off the floor. In this position, the ribs are raised. At inhalation, the diaphragm lowers and the abdominal cavity fills.

Students' lesson notes from Allard indicate that he often quoted Herbert Spencer's description of the inhalation process. In brief, this states that upon inhalation, the ribs at their sternal ends move from an acute angle towards a right angle. This is accompanied by a natural lowering of the diaphragm and raising of the abdominal wall. This natural process creates an enlargement of the thoracic cavity due "partly to depression of the diaphragm, partly to elevation of the ribs."[85](#) Air naturally flows into this enlarged chest cavity and loses pressure, following the path of least resistance. "With the correct and natural sequence of movements, the air will follow its prescribed course."[86](#) Unnecessary tension is created when one tries to force a muscle into action by pushing or pulling

The exhalation process should also be a natural one. Allard often quoted a French saying he once read in a Larrouse French grammar book, "soufer n'est pas jouer" (to

blow is not to play). "I find that when I play, I take a breath that comes so naturally to me ... I don't even feel that I'm blowing."[87](#) Exhalation comes only with minimal necessary tension. He abhorred the ideas of holding back air, or forcing the air out. As always, Allard confirmed his concepts and ideas with sources he respected. Douglas Stanley's Science of Voice, which he often quoted, supported Allard's view of the breathing process.

Any attempt to consciously control the rate of emission of the breath is fatal. The fundamental law of breathing is that the pupil must be taught to inspire properly and then forget all about the breath.[88](#)

Embouchure

In the formation of the saxophone embouchure, four essential elements are generally considered: the upper teeth, upper lip, lower teeth and lower lip. Some saxophone pedagogues discuss these elements separately, while others may ignore an element entirely. In his own teaching and playing, Allard integrated all four elements.

He taught that the upper teeth and upper lip are a pair that receives and opposes the pressure exerted by the combination of the lower lip and lower teeth.⁸⁹ Allard often paraphrased Newton's third law of motion: "to every action there is always opposed an equal reaction"; thus, if a body exerts force then another body must oppose it. In his conception of embouchure, the lower teeth in the jaw are the body of exertion; the upper teeth are the body of opposition.

One widely taught approach to saxophone embouchure advocates balanced pressure all the way around the reed and mouthpiece combination Larry Teal described this as the embouchure "wheel," asserting "the lips should circle the mouthpiece with an equal pressure toward the center, much the same as an elastic band."⁹⁰ Allard's investigation and experimentation caused him to refute this approach to embouchure. He believed it focused the sound in a narrow overtone spectrum by restricting the vibrations at the side of the reed. "I've taken a rubber band and a drawstring and wrapped [them] around the reed; all I could see was that it shortened the length at the sides of the reed and left the reed open in the middle."⁹¹ Allard advocated the opposite, exerting the pressure at the heavier center of the reed, thus allowing the sides of the reed to vibrate freely. This creates a greater mixture of overtones, and a more resonant sound.

As an exercise to counter the tendency to circle the mouthpiece and reed combination, Allard had students place their middle and index fingers (or in some cases, toothpicks) on the lower lip on both sides of the mouthpiece (forming a "V"), pressing

down to keep the bottom lip flat. This exercise keeps the lip from pinching the sides of the reed and frees the sound. As another visual aid to this concept, Allard often described the embouchure as "fitting the mouthpiece." David Demsey recalls,

I can still remember him holding the end of the mouthpiece, tip facing me and asking, "Does that look round to you?" Well no, the reed surface forms a flat bottom. His point was to make your embouchure fit the mouthpiece.... If the lip is round and curved, you're crimping the corners of the reed in and it's going to deaden the sound.⁹²

He also asked students to visualize the lower lip as if they were putting on chapstick or lipstick. This visualization prevented the student from going to the opposite extreme of a "smile" embouchure in which the corners are pulled taut, back and up.

In its natural resting position, the upper lip folds slightly over the lower lip at the corners. In forming the embouchure, the upper lip assumes this same function, closing the air space created by the flat lower lip. Allard initially developed his concept of upper lip after discussions with and observation of double-reed players and double-lip clarinet players. He noticed a difference between the two. Oboists and bassoonists maintain a relaxed upper lip in order to allow the top reed to vibrate, whereas many double-lip clarinet players push down with the upper lip. Allard perceived constriction in this latter approach and sought to find a way to play with a relaxed upper lip.⁹³ Allard admitted to experimenting with a modified double-lip embouchure on clarinet, especially after dental problems forced him to obtain upper and lower dentures, but he ultimately played and taught what has been described by one student as "a single-lip version of a double-lip embouchure."⁹⁴ This approach, similar to the embouchure of double-reed players, maintains virtually no pressure on top of the mouthpiece by either the upper teeth or the upper lip.

As an exercise, most students were taught to practice for very brief periods of time with the upper lip off the mouthpiece entirely. When the lip was placed back on the mouthpiece, the student was asked to recall the feeling of the relaxed and lifted upper lip. After working on this exercise, many students initially experienced a slight air leak at the corners of the embouchure in their normal playing. Jack Snavely remembers, "When I asked him about the escaping air he said that it would work out, and I feel that my upper lip eventually did what his did, sealing the leak and yet adding freeness."⁹⁵

A similar exercise was used to determine the amount of necessary pressure from the upper teeth on the mouthpiece. For this concept, students were encouraged to experiment with lifting the upper teeth off the mouthpiece. Playing without the upper teeth on the mouthpiece creates no downward pressure and students were persuaded to duplicate as much as possible that lack of pressure when the teeth were resting on the mouthpiece.[96](#)

Due to the nature of the human skull formation, pushing down with the teeth involves bending the head downward, which creates constriction at the larynx and the throat."[97](#) Most Allard students indicate that this was an issue in their playing, and Allard created exercises to counter the habit of pushing down with the head. One student recalled the following visual exercise:

He [Allard] said, "When I was a kid and I used to walk to school, I had to walk past this meat market, and I'd see these big sides of beef hanging on hooks. The hooks were vicious." He'd say, "Stand up against the wall with your head touching the wall. We're going to put one of those meat hooks under your chin. Now play a scale." He had me visualize that meat hook while I practiced so I wouldn't put my head down.[98](#)

Allard would also guide students through a physical exercise to counter constriction in the neck, by placing the head in the proper position for playing. David Tofani described it,

It's very easy to let the head settle down, and over time the vertebrae can become compressed. I remember Joe would stand behind me and put his right hand on my right temple and his left hand on my left temple and literally lift. Then he would count "1, 2, 3," and he would lift and also have me lift. So we did it together. [The head] is going straight up, as though you were going to lift the skull right off the spine.... When you play, the head remains at the top of the spine, and you don't constrict at the neck.... You're trying to find the natural spot that the head should go. . .[99](#)

In general, the upper and lower teeth should be in their natural relative position. Allard used two dental terms to describe this position, hinge axis and centric position. They are defined as the normal bite and jaw formation inclusive of any overbite or underbite an individual may have. One commonly taught approach to the saxophone embouchure compels the student to adjust the jaw position so that the upper and lower teeth are aligned.[100](#) Maintaining the centric position as Allard advocated prevented students from pulling back or jutting forward with the lower jaw, thus preventing unnecessary tension.

As the upper teeth move away from the lower teeth they move down and back, but everybody's line is a little bit different. Some people, because of the nature of the jaw, move down quite a bit before [moving] back. In my case, it moves back almost immediately. That varies with individuals. When you bring the jaw out of the hinge axis, it locks, brings a tension on the neck and invites constriction [101](#)

The placement of the lower teeth in relation to the reed is also variable, but the initial point of reference is generally opposite the place at which the reed comes away from the mouthpiece. Allard termed this point the "crux." Minimal pressure from the upper teeth allows for the necessary pressure to be exerted by the lower lip and jaw combination. He advocated using no more upward pressure than necessary. Allard was forced to rely on this light pressure approach when he obtained full dentures in 1955 to correct what he called a "slight cleft palette." [102](#) "The teeth in the jaw in a normal bite are capable of exerting a pressure up to one-hundred twenty pounds. Any student of dentistry can tell you it's so. With dentures, the pressure is reduced to twenty-seven pounds."[103](#)

Allard taught students to use enough pressure to "hold the reed."[104](#) David Liebman further defines this pressure as a "physical sensation of holding the reed, rather than the mouthpiece." [105](#) Students were taught to find this necessary pressure by experimenting with a vertical "chewing" motion. The purpose of this exercise was to experience the feeling of pressure with the lower teeth and tip combination rather than with the lower lip alone. Liebman maintains that "chewing is an extension of articulating language; in fact it is impossible to recite the alphabet without a chewing motion."[106](#) Reciting the alphabet was indeed one of the exercises Allard used with his students to practice this chewing motion; another was to say the syllable "ex" to get the idea of the chewing sensation.[107](#) These exercises were designed to help a student learn control of the reed with the lower teeth in combination with the lower lip.

In conjunction with "holding the reed," Allard instructed students to "feel the reed with your teeth." In other words, feel

the pressure of the reed coming through the lip. Too much pressure causes a loss of that feeling. He often reinforced the concept with an analogy - the teeth are like wooden hammers on a piano. the lip like the felt that covers the hammers. "The lip. Re the felt, absorbs the higher and extreme overtones as a natural physiological function." [108](#)

Because of Allard's constant pursuit of tonal variety and individual musical expression, his approach to embouchure was one of flexibility. "There was no one sound.... You've got to be able to play with more mouthpiece, less mouthpiece. more lip, less lip - be flexible." [109](#)

Tongue Position and Articulation

Allard advocated that proper position of the tongue in the mouth alleviated restriction on the larynx and thus restriction of air, aided in proper articulation, and directed the air stream properly into the mouthpiece. [110](#) He garnered his concept of tongue position from his initial lesson with clarinet teacher Gaston Hamelin. Allard recounts:

I remember the very first thing Hamelin ever said after he heard me play. He thought I was French. He said that when I released my tongue from the reed in order to produce the sound, I did it like the Americans do. He said, "But you are French, you know the difference between to and teu. Whatever you do, don't say tu like the Americans, but say teu." [111](#)

In vocal and wind instrument pedagogy, tongue placement and articulation is often taught by means of syllabic imitation, but rarely is such a fine distinction as *to* and *teu* made. The French vowel maintains a high tongue, with the tip of the tongue dropping only to the level of the upper teeth. It also creates a small space at the front of the oral cavity. In the English pronunciation, the tongue drops well below the upper teeth and creates a larger cavity at the front of the mouth. Both pronunciations maintain a high placement with the back of the tongue.

Hamelin of course, advocated the French syllable, which shaped the oral cavity into what he called a "forward coning" position. Through investigation, Allard later discovered that this term was borrowed from the field of aerodynamics.

In tongue position, "forward coning" is defined by an oral cavity that is small in the front and large in the back. In antithesis to this, Hamelin pointed to the accepted German school of clarinet playing. Allard recalls,

Hamelin said, "The Germans have a long lay in their mouthpieces and use heavy reeds. The pressure that's exerted is... well over an inch away from the edge of the reed so the mouthpiece goes quite far in the mouth. The tongue, in order to make room for the reed, has to go away from the roof of the mouth, leaving the front cavity of the mouth very large which forces the back of the mouth to be small"; Hamelin referred to this as reverse coning. [112](#)

Allard admitted to not completely understanding the difference between forward and reverse coning, however, until he was playing in an orchestra with a German clarinetist. Through his keen observation and analysis, Allard confirmed that the German musician did indeed play with a lot of mouthpiece in the mouth, forcing the tongue to a low position. The player got "very tense and red in the neck," [113](#) convincing Allard that he was working too hard, but there was a quality to the sound that Allard admired.

He worked very hard, but I liked the result that he got when he played in the forte and double forte [dynamic ranges]. I never heard any French clarinetist play with that kind of a sound in the forte [dynamic range]. So there was something about the German school that I liked very much and there was something about the French school that I liked very much" [114](#)

Allard determined that the use of a harder reed contributed to the louder dynamics. This led him to synthesize his concepts of reeds, embouchure and laryngeal flexibility with that of the "forward coning," position of the tongue. This synthesis allowed him to achieve what he perceived as the strengths of both the French and German styles of clarinet playing. He then adapted these same principles to his saxophone performance and pedagogy.

The term "forward coning" was not used with all students. Many students indicate that Allard used the syllable "ee" as a description of this high tongue position- as opposed to a position low in the mouth, "ah" One exercise that Allard

frequently taught to help students distinguish the difference was trying to blow out a candle using a vocalization of both the "ee" and "ah" syllables. Greater velocity is produced by the "ee" position so the candle will easily extinguish. David Tofani related another analogy that emphasizes the benefits of an oral cavity that is narrow in the front: "It's similar to sticking your finger in a garden hose. You create a faster stream when you narrow the opening. The air speeds up just as the water speeds up."[115](#)

Allard always formulated concepts related to physiology by first examining the natural formation or function of the area in question. The normal position of the tongue in a relaxed state, like in daydreaming, is high and wide in the mouth. However, "when your tongue is at rest, you're inactive. You're not producing a sound ... vocally."[116](#) Therefore there is a slight amount of necessary tension created even in the simple act of blowing. To alleviate unnecessary tension in the tongue, Allard often taught an exercise of a rolling `Y' similar to that used in Spanish or Italian languages. "If the tongue is too tense it won't vibrate. The minute you flutter the front of it, the sides have to be wide, but the minute you take the sides and narrow them in, then the tongue is so tense that it won't flutter."[117](#)

Students who had difficulty with tongue position and relaxation were subjected to an explanation of the physiology combined with a linguistic solution similar to this:

I usually try to get them to say something like "row, row, row your boat." The "row." Now, instead of saying "o" if you would say "re, re, r, e_" May I get on the "e" just a little bit? In English we only have one "e," but in French there are three. You have the "eh," which is called the open e, and you have the "ee" which is called the closed e and you have what they call a neutral vowel, "uh." In the tongue there are thirty muscles going through different contractions to shape the mouth into all the different syllables we use in the English language. In the neutral vowel "e" none of these lingual muscles are used, that's the reason it's called neutral. You could actually let your tongue hang on your bottom lip - it's nothing more than a glottal expression, there's no lingual tension at all. So if you go from this "uh" and you take it to "ru"... the sides of the tongue touch in the widest part of the back and the tongue is as wide as the widest part of the arch in the mouth."[118](#)

The words and consonants which Allard used with students in this concept varied, but the end physical result remains the same - the back of the tongue touches the upper molars, the back of the oral cavity remains large, and the front of the oral cavity is narrow.

Ed Riley summarized Allard's unique approach to tongue position.

What I've retained is just a sense of the feeling of the tongue completely free of all linguistic tension, with no point. The tongue is up against the top teeth in the back with the forward coning position where the forward part of the tongue comes very close to the hard pallet and produces a fine stream of air into the mouthpiece. I think that's really one of the secrets to the kind of tone quality Joe was able to get.[119](#)

Expanding on the "row" exercise described above leads to a positioning of the tongue for articulation. In using the "r" consonant as above, no articulation is produced; it simply places the back of the tongue in a position touching the upper molars. By moving from the "r" to more articulate consonants such as "t" and "d" the entire tongue is put in proper position for articulation.

Allard taught that articulation was a part of the expressive elements of playing, in the same camp as dynamics and phrasing. There are many types and styles of articulation, dependent upon the style of music being played. Allard analyzed the sounds created by articulating with various parts of the tongue on various parts of the reed. All combinations are possible, but he discovered in his teaching that students had the most difficulty achieving a light articulation. He developed exercises that he used with students to create awareness of the problem.

One was a long tone exercise. We would begin the tone with no tongue, get very loud and while the note was still going on, he'd have us barely articulate. We would touch the reed as lightly as possible, so that the tongue would interrupt the vibration of the reed without stopping it, teaching us to barely tongue. He'd have us practice it loud so that we'd learn to use a light articulation even though we were playing loud. A lot of students tongue hard when they play loud; Joe's exercise separated that.[120](#)

He also had students practice tonguing without the reed on the mouthpiece. touching only the baffle of the mouthpiece, `without allowing the tongue to fall into the cavity [of the mouthpiece]." [121](#) He then had them apply the concept to actual articulation:

When you're tonguing at the reed, you're only going to tongue opposite that little tip rail, which is no more than a millimeter [wide]. To tongue any further [back on the reed] than that makes it very, very sluggish. [122](#)

Regardless of the style of articulation performed, Allard was insistent that the tone be the primary emphasis. One student recalls working on this concept,

He believed that one of the big mistakes that many people make is that they try to play staccato as short as they can, but there's no tone there ... He would have me play a line, and he would say, "Don't clip those notes, let me bear the tone of each note." [123](#)

Allard disagreed with the commonly used description of saxophone articulation as tonguing with the "tip of tongue to tip of reed." [124](#) Allard preferred the nomenclature "edge" rather than tip, because "tip means an extreme point. [125](#) He purported that speech books with which he was familiar described the tongue as having an edge and a blade, the blade being the surface of the tongue. The edge is the place at which the blade meets the muscle below. Establishment of the "forward coning" or "ee" position, puts this edge in proper position for articulation.

Throat Position and Laryngeal Flexibility

Wind players and vocalists are sometimes taught that creating an "open throat" can eliminate tension. One accepted practice in saxophone pedagogy is that the tongue is kept low in the mouth, with the intent of maintaining an "open" throat. [126](#) Allard disagreed with this commonly used terminology, maintaining that if the tongue is low in the mouth, then the back of the tongue is going into the throat. As he analyzed this relationship between the tongue and the throat anatomically, Allard determined that "the throat is the space between the tongue and the pharyngeal wall [laryngeal pharynx]. Therefore if the tongue is low in the mouth, it either has to go toward the pharyngeal wall or bring about a pressure on the glottis." [127](#)

He concluded that an "open" throat does not eliminate tension, but actually creates it. Allard's analysis was confirmed by a source that he quoted often, Douglas Stanley's The Science of Voice:

The idea of relaxing the throat and at the same time opening it is a direct contradiction of terms, since the only way in which it can be held open during the act of phonation is by tensing the extensor or opening muscles, thus inhibiting the action of the antagonistic constrictor muscles. It is physiologically impossible for the pharyngeal muscles to be relaxed during the act of phonation. There must be tension on either the extensor or the constrictor group. [128](#)

This rather complex physiological examination simply means that it is impossible to maintain both a relaxed and "open" throat.

Some students would achieve the opposite extreme and constrict the throat by closing the epiglottis. The natural function of the epiglottis is to close when swallowing, directing matter to the stomach instead of the lungs. To make them aware of constriction. Allard had students take a breath and "hold it" for five seconds, then release the air. The exhalation should occur without having to release a closed throat. One telltale sign of constriction is an audible "click" in the throat at the moment of release. [129](#)

Allard believed that laryngeal flexibility was key to a centered sound that was capable of pitch and tonal variation. Exercises involving playing on the mouthpiece alone develop this throat flexibility and flexibility at the embouchure. Playing on the mouthpiece necessitates a high level of "inner-hearing." The student should strive to play a variety of specific pitches on the mouthpiece alone. Allard often had students play scales on the mouthpiece. David Liebman contends that a student should easily be able to achieve the intervallic range of a tenth on the mouthpiece; [130](#) however, proper embouchure formation and tongue position are essential.

A second flexibility exercise involved pitch bending. Allard introduced the exercise by having the student play an f on the saxophone and bend the pitch down by half-steps as low as possible. The key is using the larynx, not the jaw, to change the pitch. The size and shape of the mouthpiece chamber is a variable in both of these exercises. "I personally find that after I've done these two exercises - the scale on the mouthpiece and the pitch bend - I can immediately play better ... I sound better after I've done them."[131](#)

Another exercise that focused on "inner-hearing" involved vocalization. One student described Allard's unique demonstration:

The throat assumes the same position it would assume to sing the note. Then you keep it in that same position when you're playing it on the saxophone.... A lot of times he would use this falsetto and inhale to get these real high pitches in his throat.... He would get the real high pitches and then put the horn in his mouth as he was inhaling; then he would exhale and the pitch [he was singing] would come out.[132](#)

Overtones

As an extension of laryngeal flexibility, Allard taught a system of voicing through the overtones on both saxophone and clarinet. Most saxophonists are aware of the benefits of overtone practice for ease of altissimo playing, but Allard's approach was not primarily designed with this goal in mind. As in the flexibility exercises presented above, he utilized and taught overtones as a means of achieving accurate intonation, fullness of sound, variation in tonal quality, evenness of sound throughout the range of the instrument. and "inner-hearing." All of these qualities contribute to greater musical expression.

His interest in the principles of the harmonic series came about at a time when he was learning to play the flute, an instrument whose fingering system makes application of overtone principles essential. He was impressed by the physical changes that had to occur on flute in order to produce not only the high notes, but also the change from a high note to a low note, or overtone to fundamental. Allard related his first experiences,

[Flutist] Eddie Powell was coaching me in this and he said that the trick was to try to get the low tone as close to the overtone as possible. In that way you gain more intensity in the low. As you change from the overtone to the fundamental tone. you seek to make the fundamental tone as close to the overtone as possible - you have then learned a different concept of how to produce a low note. [133](#)

It was this exercise of moving from an overtone to a fundamental tone that Allard first applied to the saxophone, with the goal of maintaining intensity and resonance on the lower note. A mixture of high and low overtones in the sound characterized this intensity. One student recalls, "Joe always looked for the sound of that low note - he wanted it to be rich and full. I can still remember one way Joe would describe that, he said `you want to make that metal vibrate on the low notes."[134](#) Allard referred to these first exercises as 2:1 (second partial of an overtone series to the fundamental of the same series) and 3:1 (third partial of an overtone series to the fundamental of the same series). Most students began the study of overtones with these exercises.

In moving from the overtone to the fundamental, the student should not drop the jaw or increase the space within the oral cavity, but create a subtle relaxation in the larynx with only necessary tension. The change should happen smoothly. It's not an opening sensation, it's a sensation of a slight lessening of tension; "rather than pull the tone down, allow the lower tone to vibrate."[135](#) This is achieved by relaxing the upper lip, which in turn relaxes the lower lip, lengthening the vibrations of the reed and causing more low overtones to sound.

In addition to its use as a catalyst for good tone on low notes, Allard referred to the 3:1 exercise when teaching high notes on saxophone. 3:1 produces a greater decrease in laryngeal tension than 2:1; Allard advocated that high notes should be played as if recreating that marked decrease in tension, at the same time increasing the tension at the reed. In his words, "Try to go high and increase the tension at the reed but get the feeling that you're going from 3 down to 1. The idea is to go for the highs with the feeling of lessening of tension in the vocal area."[136](#) As another means of achieving low overtones in notes of the upper register, Allard instructed students to think and sometimes go through the physical motion of sitting down when playing high notes.

I read in a singing book that when you sing up, you think down and vice versa. I remember [Edmondo] Allegra told me one time, "When you get to a high note, sit on it." He made me get my knees up against the back of a chair and sit while playing from a low note to a high note. And then do it from the sitting to the standing position. There is an obvious greater tension on the high notes this way.[137](#)

An overtone exercise that was very important in Allard's search for tonal variety was 3:2, moving from the third partial to the second partial of an overtone series. This exercise involves a combination of laryngeal and embouchure activity, and creates a "covering" of the reed. Covering is defined as allowing more of the lower lip to come into contact with the reed. The amount of lip covering the reed is a variable; it can be manipulated by physically moving the jaw back or pulling the mouthpiece and reed combination slightly out of the mouth while playing. Though Allard acknowledged that the movement could be accomplished by either means, he did have a preference:

You can move the jaw from forward to back. I can do it that way, but personally I don't like to do it that way. When I move the jaw, it takes the tongue out of position. I find that to be disturbing. The other way [moving the mouthpiece], there's no disturbance.[138](#)

Determining the amount of reed to cover involves a number of factors: the player's individual physiology, the style of music being played and the intensity of sound desired.

I can remember him. ... covering the reed; he could cover it anywhere from a quarter of an inch to three-quarters of an inch just by what he did [with his lip] and saying, "Those are the different colors you can get on the instrument based on how you cover and uncover the reed inside your mouth. You have control over color."[139](#)

The concept of covering and uncovering the reed mirrored that of double-reed players. "On oboe and bassoon, they move the reed in and out which is very much the same thing as this, you're moving the horn in and out."[140](#) He related a story about bassoonist Bob Thompson, who had come to Allard for a lesson:

He played covered, but he retained the same covering when he played high as he did in the middle and lower registers. I recommended that he uncover in going up high. He said, "It's a funny thing, when I studied with Mr. [Robert] Bloom at Yale, he said very much the same thing, but he didn't use the word cover, he said "cushion more and cushion less."[141](#)

Although he agreed completely with the concept, Allard disagreed with his colleague's choice of words. "I don't get the feeling that I'm increasing the cushioning. I don't like the word cushion. I understand how I can cover more, I don't understand how I can cushion more ... so it's a question of semantics."[142](#)

Allard discovered a crucial difference between saxophone and clarinet as he experimented with covering and uncovering. The nature of the clarinet demands that it be played with an uncovered sound in the low register in order to achieve maximum resonance; the high register is slightly more covered. The opposite is true on saxophone, where the low register is generally played covered, and the high register uncovered.

On the saxophone you have to learn to cover and on the clarinet you have to learn to uncover. The one who plays a lot of clarinet and doesn't play much saxophone ... if he uncovers as much on the saxophone as he does on the clarinet, the saxophone is going to sound awful and vice versa ... if you cover as much on the clarinet as on the saxophone, you're not going to get much out of the clarinet. [143](#)

Another crucial overtone exercise in Allard's approach was the matching of overtones. This exercise involves matching the tonal quality and pitch between an overtone and a natural fingering. When matching for timbre, the same resonance and intensity achieved on the overtone is desired on the normal fingering. This is difficult because the overtones are produced by fingerings that close a greater number of tone holes on the saxophone, so that much of the body of the instrument is vibrating. The normal fingerings generally close much less of the instrument and thus will have a natural tendency to resonate less. "So this crucial aspect of timbral matching means that the player is constantly striving to get the sound of the normal fingerings as close as possible to the quality of the sound achieved by overtone fingerings." [144](#)

Matching for pitch assumes some knowledge of the naturally out-of-tune partials within a given overtone series. In general however, the pitch of the overtone is in tune and the pitch of the note with the normal fingering should be matched to it. This is accomplished by recreating the laryngeal position of the overtone on the natural note. This practice counters a common approach of inexperienced saxophonists who manipulate pitch at the reed, solely by tightening or loosening the jaw and lips.

Lip movement should be used for all kinds of subtle expressive nuances such as pitch bends, smears and other tonal colors. Basic pitch control should come from the air stream shaped by the vocal cords and resultant mouth cavity shapings.[145](#)

Though all of Allard's overtone exercises are useful, this concept of matching for sound and pitch is perhaps the most practical. Students learn to recreate the sounds achieved in the exercise in everyday playing. Many Allard students indicate that he worked with higher partials of the overtone series as extensions of the exercises outlined above. In teaching overtones, Allard wrote out exercises for most students, although little written explanation was included. Many students created charts and exercises of their own.

When properly executed, overtone exercises achieve musical results. They teach a player to combine "inner-hearing" with physical considerations to bring about a resonant, even, in-tune tone quality which has the potential for variation dependent upon an individual's desired sound and musical expression.

Reeds and Reed Working

Allard taught specific techniques in reed working, but he was not obsessive about reeds. He believed that it was possible to immediately determine if a reed was worth working.

When a reed responds badly, you have to distort your embouchure, and you can fall into bad habits. On the other hand, you can be too fussy about reeds. You don't find too many tremendous reeds. You could spend all of your lifetime on reeds."[146](#)

Clarinetist Daniel Bonade taught Allard many of his reed-working techniques. Consistent with many single-reed players, Bonade had his students work on their reeds with Dutch rush, but Allard found it frustrating >and instead experimented with the reed knife techniques of his double-reed playing colleagues. He practiced and developed these techniques while playing in pit orchestras.

Some conductors won't let you read a book in the pit, because they say it's distracting to the people in the first few rows. If you're working in a pit where the conductor won't let you read a book, one thing you can do is scrape reeds. The conductor thinks you're working on reeds to play for him. It's a great excuse - that's when I worked on my reeds. [147](#)

Many professional single-reed players would come to Allard just for lessons in reed working, including colleagues from the various orchestras with which Allard was associated.

As in most other aspects of saxophone and clarinet playing, Allard became interested in the science of reeds. He purchased a micrometer, not to use as a guide for working on reeds, but to substantiate proof of his theories of reed strength. He believed that there were two primary differences between brands of reeds: the intensity of the fibers, and the thickness of the tip.[148](#)

The tip of the reed is defined as the portion of the reed that corresponds to the baffle on the end of the mouthpiece. Allard worked on the tip of a reed to ensure that it was thin. Bonade probably taught this conception of a thin reed tip to Allard. "Watch that the tip of reed is always very thin ... the tip of the reed is the first part to vibrate .. it also allows the player to diminish tone with an even quality - makes the reed easierblowing."[149](#)

Many former students referred to Allard as a "reed wizard"; he seemed able to make virtually any reed better with a few well-placed strokes of the reed knife. One student fondly recalls, "He'd be talking to me, telling me Toscanini stories, and the shavings would be flying. He'd give me back the reed and whatever reed it was would instantly be magic; it

would just play." [150](#)

One student indicated that the reeds Allard worked on would often not last very long.

I realized that he learned to do this for situations that demanded immediate attention. He'd be in the orchestra, and he needed something that worked right then and there. He developed the craft of fixing the reed right then for the immediacy of the situation. [151](#)

Students indicated that Allard spent multiple lessons on reeds, showing them reed-working techniques. As with most of his concepts, students have tailored Allard's reed-working principles to their own individual preferences. There are a few techniques, however, that virtually all employ. The most frequently mentioned is that of balancing the reed, achieving equality of vibration from one side of the reed to the other. "From the very center moving out to the sides, it should be equal. So in balancing a reed, you'll take away from the heavier side, so it becomes more equal. When both sides are equalized, then you've balanced the reed." [152](#)

Allard taught students to "seal" the reed using what some refer to as the "white paper trick." This technique involves moving the reed in a circular motion against a white piece of paper set on glass or another hard surface; "it generates heat, absorbs all the moisture and flattens the swollen fibers." [153](#) He only used this technique for the first few days of a reed's life; swelling and fungus created by moisture at the bottom of the reed window after that time was removed with light knife strokes, a flat file or sandpaper.

Musical Considerations

Allard's tonal approach to the saxophone led to beauty in the aural result - beauty that was subjective and individual. This was allied with individual musical expression through elements such as vibrato, dynamics and phrasing. In his words, "I feel that as far as the sound is concerned there are things that in principle, we all do very similarly. but naturally the result is an expression which is an individual expression and I think that all sounds should retain the stamp of individuality." [154](#) Often this expression necessitated looking beyond the printed musical score. As one student recalls, "He would talk about the vocal expressions and how one sings things and how we must always look at the musical phrasing. He would instruct me to disregard the composers' markings whenever possible to make for a better musical effect." [155](#)

Vibrato is one of a saxophonist's most expressive elements. Allard did not approach vibrato from a mechanistic perspective, but believed that the vibrato should sound appropriate to the style and genre of the music. It was another example of his precept of "inner-hearing" - having a concept of vibrato in mind and allowing the body to create the sound. "His vibrato was very much attuned to the French thinking of vibrato. It wasn't as intense as that, but it certainly was in that direction, but a little slower and not quite as aggressive." [156](#) Though he focused on the lip and jaw combination as the source of the vibrato, he also acknowledged that the vibrato could originate from other sources. [157](#)

Vibrato is always dependent upon a centered, focused sound. Allard drew a diagram for students that illustrated the vibrato in relation to the center of pitch - above, below and surrounding. For classical saxophone playing, he believed vibrato that is felt below the center of pitch generally sounds out-of-tune, although there are situations in playing where it is appropriate. Students who played with a vibrato under the center of pitch were encouraged to attempt to play the vibrato above center. In reality, this vibrato will also go slightly below pitch, but will not sound out-of-tune.

There are two variables in vibrato, width and speed. All speeds combined with all widths are possible. The mixture of overtones influences the width of the vibrato. The lower register generally demands a wider vibrato, because a narrow vibrato will not be heard. In the upper tessitura, a wide vibrato sounds out-of-tune.

Allard's view of dynamics was based on the concept of the "drive" adapted from the legendary oboist and teacher Marcel Tabuteau. Allard's oboist friend and colleague Robert Bloom, who studied with Tabuteau, introduced him to Tabuteau's approach. The "drive" is defined as a scaling of musical elements: dynamics, articulation, tone color and vibrato. [158](#) Each element has the potential to be employed within a wide range of slight gradations of intensity to create motion in the melody, harmony and rhythm. [159](#) Tabuteau used a numbering system to teach this scaling. His original

concept called for numbers from one through as many numbers as necessary in each phrase.¹⁶⁰ In teaching dynamics, Allard adapted this exercise by creating a "chart" of numbers from one (least intense) to thirty (greatest intensity possible while maintaining centered sound). He applied dynamics to the chart with multiple numbers for each dynamic level, representing the intensity possibilities. Students were encouraged to "play by the numbers" to achieve suitable musical line and phrasing. Allard had his students circle crucial notes of a melody, then draw arrows to show dynamic and intensity relationship to other notes within the phrase. Allard spoke of "reaching the cadence": an application of Tabuteau's "drive" which serves the "intent of reaching toward repose rather than backing away from it."¹⁶¹ One student interpreted this exercise:

*Think of the analogy of stretching a rubber band and then letting it pull you back to its unstretched state. This encourages intensity of rhythmic movement - the feeling of leading or being pulled somewhere - without a break in that intensity of movement.*¹⁶²

Another common musical exercise that Allard taught his students was "skeletonizing" the melody; removing unimportant notes or embellishments, leaving only the melodic framework. This provided a better grasp of the melodic and harmonic structure of the music that was to be maintained when all of the notes were played.

Again, Allard would have students circle the crucial melodic notes in the music, then would draw arrows or lines showing where those notes should lead.

*He really taught me how to build a melody. I was playing very rhythmically every note had become important.... He taught me how to blow through the phrases ... He would have me draw the circles, but then he would put in the lines. Then he had me sing it that way.*¹⁶³

A concept that Allard stressed to his students that incorporated -inner-hearing-tonal control and musical considerations, was that of bearing your sound from the perspective of the audience. Jack Snavely described this theory.

*He explained that the sound vibrates through the mouthpiece, through the teeth, through the bones to the inner ear, so that what you hear is not what the audience hears. If you try to achieve the sound that you want the audience to hear, that sound will tend to be small. not carry, and probably sound very dull to the audience. He mentioned the need to have the edge, or buzz, in the saxophone sound. This in turn is what makes the sound carry and sound good to the listener.*¹⁶⁴

Summary

Allard's saxophone and clarinet pedagogical principles have a seeming

dichotomy. The concepts are foundational. yet abstract; controlled, yet uninhibited. Jack Snavely recalls, "He was very analytical and would study what you were doing physically ... what he essentially did for me was to free up my playing."¹⁶⁵ Allard viewed his own approach thusly:

*If you know how to play, if you understand your approach, then you have a good plan for your playing. If you understand how your lower jaw works, how your upper lip works, and how your lower lip feels, then when you put the reed and mouthpiece in your mouth and feel the reed, you know you're in the right position. You eliminate much of the fear of playing. There's still concern because you want to play well, but you're not afraid to blow.*¹⁶⁶

Allard observed, listened and analyzed, then focused on the elements that would lead to greater musical expression. His former students still express a sense of awe at his ability to guide them individually down similar, yet diverse paths; all leading to musical artistry.

⁶³ Allard, clinic, tape no. 3.

⁶⁴ David Demsey, telephone interview by author, 19 January 1999, Wayne, New Jersey.

⁶⁵ David Tofani, telephone interview by author, 1 March 2000, Washington, New Jersey.

- 66 David Tofani in Paul Pearsall, "Joe Allard," *Saxophone Journal* 13, no. I (Spring 1988): 15.
- 67 Allard, in Radnofsky, 30 September 1982.
- 68 Allard, clinic, tape no. 1.
- 69 Ibid
- 70 Raymond Beckenstein in James Dawson, "In Memoriam - Joseph Allard (1910-1991), *The Saxophone Symposium* 16, no. 4 (Fall 1991): 17.
- 71 Kenneth Radnofsky, interview by author, 18 November 1995, Boston, Massachusetts.
- 72 Allard in Paul Pearsall, 21.
- 73 Demsey, telephone interview by author, 19 January 1999.
- 74 Radnofsky, interview by author, 18 November 1995.
- 75 Winter, 7.
- 76 Billy Kerr, telephone interview by author, 29 September 1999, Montreal, Quebec, Canada.
- 77 Paul Cohen, telephone interview by author, 8 July 1999, Teaneck. New Jersey.
- 78 Demsey, telephone interview by author, 19 January 1999.
- 79 Tofani, telephone interview by author, 1 March 2000.
- 80 Radnofsky, interview by author, 18 November 1995.
- 81 Demsey, telephone interview by author, 19 January 1999.
- 82 Allard, clinic, tape no. 2.
- 83 Ibid.
- 84 Ibid.
- 85 Herbert Spencer, *First Principles* (New York: D. Appleton and Co., 1898): 73. A quote containing Allard's reference to this description appears in Appendix B.
- 86 David Liebman, *Developing a Personal Saxophone Sound*, (Medfield. MA: Dorn Publications, Inc., 1989): 14.
- 87 Allard, clinic, tape no. 1.
- 88 Douglas Stanley, *The Science of Voice* (New York: Carl Fisher, 1948): 39.
- 89 Roger Greenberg, interview by author, 13 August 1998, Greeley, Colorado.
- 90 Larry Teal, *The Art of Saxophone Playing*, (Evanston, IL: Summy-Birchard, 1963): 41.
- 91 Allard, clinic, tape no 1
- 92 Demsey, telephone interview by author, 19 January 1999.
- 93 Allard, Clinic, tape no. 1. Anecdote related to concept appears in Appendix B.
- 94 Edwin Riley, telephone interview by author, 30 March 1999, Columbus, Georgia.
- 95 Jack Snavelly, telephone interview by author, 16 January 1999, Ft. Myers Beach, Florida.
- 96 Weinstein, 21.
- 97 Allard, clinic, tape no. 1.
- 98 Greenberg, interview by author, 13 August 1998.
- 99 Tofani, telephone interview by author, 1 March 2000.
- 100 Teal, 37.
- 101 Allard, clinic, tape no. 1.
- 102 Ibid. Allard had dental problems from a young age. Anecdote appears in Appendix B.
- 103 Ibid.
- 104 Tofani, telephone interview by author, 1 March 2000.
- 105 Liebman, 32.
- 106 Ibid.
- 107 Weinstein, 20.
- 108 Liebman, 32.
- 109 Demsey, telephone interview by author, 19 January 1999.
- 110 Allard, clinic, tape no. 1.
- 111 Ibid.
- 112 Ibid.
- 113 Ibid.
- 114 Ibid.
- 115 Tofani, telephone interview by author, 1 March 2000
- 116 Allard clinic, tape no. 1.
- 117 Ibid.

- 118 Ibid.
- 119 Riley, telephone interview by author, 30 March 1999.
- 120 Radnofsky, interview by author, 18 November 1995.
- 121 Allard, clinic, tape no. 1.
- 122 Allard, in Radnofsky, 29 September 1982.
- 123 Kerr, telephone interview by author, 29 September 1999.
- 124 Teal, 79.
- 125 Allard, clinic, tape no. 1.
- 126 Teal, 44.
- 127 Allard, clinic, tape no. 1.
- 128 Stanley, The Science of Voice, 62.
- 129 Greenberg, Musicianship for Wind Players, (Greeley, Colorado: by the author, 1994): 16.
- 130 Liebman, 19.
- 131 Greenberg, interview by author, 13 August 1998.
- 132 Demsey, telephone interview by author, 19 January 1999.
- 133 Allard, clinic, tape no. 2.
- 134 Greenberg, interview by author, 13 August 1998.
- 135 Allard, clinic, tape no. 2.
- 136 Ibid.
- 137 Allard, clinic, tape no. 1.
- 138 Allard, clinic, tape no 3.
- 139 Radnofsky, interview by author, 18 November 1995.
- 140 Allard, clinic, tape no. 3.
- 141 Ibid.
- 142 Ibid.
- 143 Ibid. Detailed explanation appears in Appendix B.
- 144 Liebman, 22.
- 145 Ibid, 21.
- 146 Allard, clinic, tape no. 2. Other anecdotes appear in Appendix B.
- 147 Ibid.
- 148 Ibid. Anecdote about Allard's investigation of reeds appears in Appendix B.
- 149 Daniel Bonade, "Daniel Bonade's Reed Notebook," The Clarinet. 19 (Summer 1955),8.
- 150 Demsey, telephone interview by author, 19 January 1999.
- 151 Cohen, telephone interview by author, 8 July 1999.
- 152 Allard, clinic, tape no. 2. Description of reed balancing appears in Appendix
- 153 Allard, in Radnofsky, 30 September 1982. Complete quote appears in Appendix B.
- 154 Allard, clinic, tape no. 1.
- 155 Cohen, telephone interview by author, 8 July 1999.
- 156 Ibid.
- 157 Liebman, 40.
- 158 Terry Ewell, "A Bassoonist's Expansions upon Marcel Tabuteau's "Drive," I.D.R.S. Journal 20 (July 1992): 27.
- 159 Dominique-Rene de Lerma, "Toward a Concept of Tabuteau's Phrasing," The Instrumentalist 28, no. 8 (March 1974), 44.
- 160 Andrea Kapell Loewy, "Musical Concepts of Marcel Tabuteau," NACWPI Journal 38, no. 2 (Winter 1998-1999): 13.
- 161 Lerma, 44.
- 162 Roger Greenberg, Musicianship for Wind Players. 53.
- 163 Demsey, telephone interview by author. 19 January 1999.
- 164 Snavely, telephone interview by author, 16 January 1999.
- 165 Ibid.
- 166 Allard, clinic, tape no. 3.