

Hagan, Paul, "T.U.B.A. Profile - Arnold M. Jacobs Tubist of the Chicago Symphony Orchestra", T.U.B.A. JOURNAL Vol 4, Number 2, Winter 1977

Those among us who have passed through the south Chicago basement or the Michigan Avenue studio know the side of Arnold Jacobs that has become his trademark - the steady flow of students seeking further progress on their musical performance. I'll never forget my first lesson with Mr. Jacobs or the anticipation leading up to it. From the stories I had heard, I expected a physical examination rather than a music lesson. When the day finally arrived, I understandably felt a bit nervous about the whole affair. After being shown the way through the house to the basement, I entered a room which for appearance sake confirmed my wildest nightmares - I was truly entering Dr. Frankenstein's laboratory. I was later to learn that Mr. Jacobs uses his abundant electronic and physiotherapeutical equipment sparingly in his teaching, and only then to illustrate a point or isolate a problem. Over the ensuing years, I have found Arnold Jacobs to be a teacher far more concerned with the musical and artistic development of his students rather than their respiratory functions.

Mr. Jacobs' system of isolating problems and correcting them came about through his personal desire to learn more about the "biological aspects of tuba playing" during his early years with the Chicago Symphony Orchestra. This quest for personal enlightenment carried him through various courses in biology, anatomy, psychology, and physics, until a definite trend occurred to him in regard to some of the problems experienced by his students. Through the years, the techniques he employs in teaching students have been improved upon to the extent that Mr. Jacobs is regarded by many as the foremost authority on the psychological and physiological aspects of wind instrument performance. In addition to his almost legendary reputation as a teacher, Mr. Jacobs has maintained a standard of tuba performance that has become one of the trademarks of the Chicago Symphony Orchestra.

Arnold Jacobs was born in Philadelphia and moved to Long Beach, California at a very early age. His association with music was undoubtedly kindled by his mother's piano playing - she had been a pianist on the Pantages Circuit of Vaudeville and later became a pianist and organist providing background music in the early silent film days. Arnold himself started out on the bugle at the age of ten. The bugle led to the purchase of a trumpet, and was later followed by the acquisition of an old trombone. Jacobs had finally found his true love in that trombone, but it proved to be a short-lived relationship. Much to his dismay, it disappeared during a vacation in which it was strapped to the running board of the family car. "I had hopes of returning home and playing trombone in the High School Band, but when we returned, I was to learn that all that was available was a tuba," says Jacobs when recalling the incident. One event led to another, and by the age of 15, he was attending Philadelphia's Curtis Institute on a tuba scholarship. Jacobs continued for three years to double on the trumpet and trombone in shows and dance bands, as well as at parties and theaters until one day he was called in by the faculty members and told he would have to specialize. Being convinced of the virtues of specializing on the tuba didn't keep Jacobs from performing in different mediums though. During his years at Curtis, Jacobs performed Dixieland jazz by night as well as learning the classics by day. This led to what could have become a number of different careers. His activity doubling on string bass found him a member of a trio of musicians providing music for variety shows on WBEN in Philadelphia. Jacobs was asked one evening to do some singing on the station, which he did well enough to be offered a vocal scholarship to Curtis. It was also during this time that he was offered a full-time announcing position at WBEN, an offer that anyone can understand after hearing Jacobs' superb diction and pleasant voice. However, studies at Curtis on the tuba and vocal studies on the side were simply too rewarding to be left behind. After

leaving Curtis, Jacobs spent time in the Indianapolis and Pittsburgh symphonies before being asked to join the Chicago Symphony in 1944. It is this position that Mr. Jacobs has come to be recognized as one of the world's finest tubists.

The following is a transcription of an interview with Arnold Jacobs done by Paul Haugan for the members of T.U.B.A. The interview was recorded on January 6, 1977 at Mr. Jacobs' studio in the Chicago Fine Arts Building. This interview was recorded on a cassette tape and transcribed by Dan Perantoni. The intent was to transcribe the tape as close to the actual conversation as possible.

Mr. Jacobs has been a member of the Chicago Symphony for some 30 odd years.

Q. Mr. Jacobs, your first performing experience was in a film rather than in music. I understand that you played an extra part in a Mary Pickford film.

A. I was only 5 years old at the time, and in those days we were living in Los Angeles not too far from the Studio Lodge. My mother used to play piano on the lots for atmosphere, recitals and films. People from the studios used to come around and knock on doors for scenes where they needed children. In this case, I remember getting \$5.00 for eating an ice cream cone. It was the first money that I ever made, and the last for many years to come. It was quite different than today, because they used to seek you out to try to get you into the films. I've never seen that picture, incidentally. I don't know the name of it. I keep watching the old Mary Pickford silent movie films to see if I can locate it, but I haven't yet.

Q. You began to attend the Curtis Institute at the age of 15. What prompted you to leave home to study at such an early age?

A. There's a teacher that I had, I think it was John Adams Jr. High School in Santa Monica, California. He's a trombonist, and I believe he had been at Curtis in the 20's. He suggested that I go for an audition and, of course, I was accepted.

Q. I understand that you auditioned on an Eb tuba.

A. It was a four valve Eb Conn tuba, and I used to play it as a double BBb by strapping the fourth valve down and pulling the slides.

Q. You played for Fritz Reiner from the age of 15 until his last days with the Chicago Symphony. Do you think that his reputation as an unfeeling taskmaster is deserved?

A. I answer that with sort of mixed emotions. He was not unfeeling at all. He had a philosophy that he had to be a firm taskmaster. He felt that all players would become nervous during rehearsal if they were subjected to a certain amount of pressure, and they would begin to react. In other words, if they were not able to hold up and produce sounds properly during a rehearsal under pressure, then they would have the same potential to fall apart during a concert. He didn't want people like that in his orchestra. It was his philosophy to test people occasionally. If he could get them a little unglued, and they would fall apart, they belonged in some other orchestra, not his. This was planned on his part.

Q. Does any particular test of Reiner's stand out in your mind?

A. Well, I used to be tested. It averaged out to about every third year of the many, many years of our association. There would always be one week where I could not do anything right and the rest of the time everything was fine. He did this with everybody. We called him "the great leveler" because you all

took turns no matter who you were or how well he liked you. But you took your turn regardless. He would single out a person that had a part that he wanted demonstrated. For example, he would say: "tuba alone" or "trumpet alone." Well, brass players are used to playing alone. This was not such a hazard as it was with some of the string instruments. It became quite a mental hazard to be picked out of a section and asked to play difficult parts without proper mental preparation. It was quite a challenge. We felt that if you could survive a few years with Reiner, you could survive anything in this profession.

Q. Can you remember any particular test that he would single you out for?

A. Oh, well it was constant, in the sense that if there was a difficult part to play, he would want to hear it alone. In other words, in Till Eulenspiegel he would want to hear the solo parts alone - he would want the fast parts alone. In a work that involved tuba in Berlioz or anything that was difficult for the instrument, he was just as apt to call on you to play it alone. But I soon became aware of this, and at intermissions, particularly with Pittsburgh and Chicago, I would play the parts alone anyway, because he was always around listening. So I would take the difficult parts and play them where he could hear them, and at my own leisure and pace, and it would sort of get him off my back and he liked that. In other words, he liked the idea that you'd have enough initiative to see that you could cover the material without jeopardizing performances, and so on.

Q. Can you think of any particularly interesting story about Reiner off hand? There seems to be all kinds of legends about him, and hiring and firing, and some of his techniques. Can you think of any stories that stand out? A. Well, in the firing department, of course, the first thing that comes to my mind would be the start of one of our seasons in Pittsburgh, and he brought in a bass drummer who was a retired man from the New York Philharmonic. I don't remember his name any longer. This was many years ago and we were playing a work that involved some bass drum piece that had to have accuracy. I don't recall - it wasn't Rites of Spring, but it was something with a counting problem and the bass drummer miscounted. Reiner asked to go over it again. I think that around the fourth repetition, he said: "You're not going to make it. Good bye. Go home. Don't come back." And they paid the man for the season, because he was under contract, but he was out! Now I have seen this happen with others. We used to call them "old friendlies." But this is rather rare. In other words, he wouldn't just fire people off hand. If you made good (he would ask for good playing), and if you made a few mistakes, he might hop on you and chew you out a bit, you know, and so forth, but if the playing came around and was what he wanted, he would always acknowledge the playing. It wasn't just a one-way street - he wouldn't just find fault. He would very definitely acknowledge good work. So it was sort of a rewarding experience in one way, and if you put in the effort and did things well, and it happened to be what he wanted, why there was an acknowledgement usually in your paycheck as well as in your psychological aspect for getting "bravo" from the conductor, you know, a salute.

Q. Do you think Reiner was more or less responsible for building the Chicago Symphony for what it's known to be today?

A. Oh, no, no. The Chicago Symphony, for as long as I can recall was an excellent orchestra. In other words, the Reiner characteristics of interpretation, yes, but this was a great German orchestra before I ever joined it. I came here in the early 40's. But I used to listen to concerts when Stock was the conductor. This was a great orchestra. As far as I know, it has always been a first-class orchestra since I can remember listening to orchestras. Now, Reiner put his imprint on the orchestra very definitely, but he did not take an inferior group and make it into a superior group. He took a very excellent orchestra

and then put his style of interpretation, in other words, because we were drilled extensively in Strauss and Wagner and things that he did so very well. Much of what we're doing today, there's still some of the elements of the rehearsal time that we spend with Reiner, and those of us who had been with him and knew him over the years still have much of his style characteristics. But the way you phrased the question was: "Was he responsible for this being a great orchestra." I would say that he was very helpful, but it was a fine orchestra when he took it over.

Q. Advances in teaching techniques, recording equipment and the like, have been helping to turn out better musicians with each generation. Where do you think this trend will take tubas?

A. It's hard to say, because if you'll make a graph and begin to establish the character of, you might say, changes over the years, you'll find that they're based very much on the type of musical challenges that the tuba player responds to, and you'll find that many tuba players are former trumpet players, former baritone players, and former trombone players. These people are going to have already well developed musical abilities that they're transferring to an instrument which doesn't always require as much as they have to offer. Now, as you do this, and you find that, for example, when I first came over to tuba (I have to digress in my story just a little bit), but I became a tuba player simply because my trombone disappeared off the running board of a 1929 Hudson touring car somewhere in Texas. When I got back to Santa Monica, CA, I didn't have a trombone, but I still wanted to be in the band. The bandmaster said that there weren't any extra trombones, but that there was a brand new King sousaphone. You're it! So, he started me on the sousaphone. I put it on my shoulder, and had a King Equatruue mouthpiece - a large mouthpiece which felt like a coffee cup on my lips. But, I had been playing trumpet on my lips. But I had been playing trumpet and trombone quite a bit up to that time, and I very quickly began to make musical sounds. One thing that I used to play so much was the Arban Carnival of Venice, which I had thoroughly learned by then. So I started to fool around with it on the tuba, and they thought that this was great stuff. But after all, I was a trumpet player, as well as a trombone player, so I was able to play it immediately. I became first tuba in their band. They put me in the News Boys Band, and all the compliments that go on with the junior high school level when you can do something well persuaded me to stay on the tuba. And, of course, I really did enjoy practicing. I must admit that I used to spend a great deal of time in personal practice. My mother was a fine pianist, professional musician and very fine organist. We used to play a great deal of music with tuba and piano, but it wasn't tuba music. I can still remember playing all the melodic lines in the Poet and Peasant Overture with my mother playing the piano. I played all the melodic parts in this overture. This would go on constantly with vocal music and the type of music that she would have on the piano. Some of it was a certain amount of rag-time of the periods, some of it was classical music. I did get a thorough grounding in faking my way through with piano accompaniment at an early age, and I attribute this to much of my advancement later on as an interpreter of music. But your question was, as I recall, was where this will lead in the development of the tuba. And I still have to answer, based on what are the challenges that are being presented to the tuba player. Now, it's sort of a which came first: the chicken or the egg type of situation. When a composer hears a wonderful player - like Harvey Phillips or Roger Bobo, they write immediately with the type of playing they have in mind. Then a young developing player hears this and starts to respond. He develops accordingly to the music to where he can play it. Now he usually acquires this information while he's still fairly young. With maturity and repetitive aspects, he's turned these into new challenges which make him move a little further. I feel that there is a constant bringing up of the standards of musicianship of the young tuba player. The requirements of just being an accompanist is being bypassed

to being an interpreter of music. This is, of course, what I stress. Always think of the tuba player, the aspect of his being a human being, who happens to merely use the tuba as a media of interpretation. And when you asked about the potential of development, I think it goes into taking the music of the day, music that has some significance to the player, and constantly developing his ability as an interpreter as one who can be stylistic. When asked to accompany, he can become the accompanist with excellence, rather than the soloist. If he's put in front of a band, he is then the soloist, and can interpret as the soloist. This has to be a very comprehensive type of development in music - not in tuba. The tuba is something that uses as his media through which he is going to express himself, but his development must be on the sounds that come out of the tuba. This sounds like nitpicking, but believe me, it's not. The focus, mentally, has to be on what he wants the audience to hear from his horn.

Q. The musician as a tubist, rather than the tubist as a musician?

A. Exactly.

Q. If you were to have a student that you knew could only see you perhaps for only two or three lessons, for example, our Danish colleague, Mike Lind, what would you tell him in regard as to how he should structure his future practice and so on?

A. You can't answer that question quite as simply as it's put to me, because you have to make an evaluation of where that student stands at the moment that he comes in for lessons. For example, what was his development up to a given point. Mike Lind came to me as an excellent performer, very advanced. Now, a man who can play the literature well, and is a developed musician, then you begin to look for the small details. Here's a man who can play anything put in front of him. Possibly, there is some area where, as a listener, I might suggest an increasing emphasis. In other words, in one to three lessons, I might suggest in the player like Mike Lind, a greater emphasis on lyricism in tuba playing because he has wonderful velocity and range. You must balance the diet if there's a potential that's not been developed so that the graph would be equal. Then I might suggest that this be equalized in terms of his musical potentials. In many instances, when I see a person for one to three lessons, or six lessons, they are not just tuba players. They are singers, trombone players, oboists or clarinetists. In these instances, I have to go primarily into normalizing their respiratory activities, because in many cases, they use an abnormal approach to respiration to where they cannot freely use air. We go into a very lengthy topic here which would not be appropriate for this type of an article. But I would say one thing, and that is: air for the brass player is like gasoline for an engine of an automobile. The gasoline would be useless without the engine. Our motivation in playing a brass instrument has to be very similar to the motivations of a singer singing. Instead of vocal chords in the larynx, we have vocal chords in the larynx of the tuba which would be the mouthpiece. But the embouchure has to be a source of vibration. It cannot vibrate without air - without a moving column of wind. If we could substitute electrical current in the lips to create vibration, we wouldn't need wind, but we would still need the vibration. I usually phrase it to students that when you play a brass instrument, you don't play by wind, you play by song and wind. Song has to be dominant because the lips are not made of wood. You don't shave them down and ligature them. If the reed doesn't respond, you throw them away. Actually, the signal coming through the 7th cranial nerve from the brain to the lips has to motivate a message just like the vocal cords. When we use wind, we have the motor activity of the lips. But the lips do not have to respond to wind. They can resist wind and not respond at all. But it must have the message and must have wind. In the scale of importance, I'd put 80% into psychological attitudes of song so that the lips will have a

message, and 20% intellectually into wind as a matter of movement. I don't know if this answers your question or not. We're sort of digressing from the specific question, but I will say one thing to any young players: you have to consider the study of machine systems. When a man designs a machine to do something - an automobile, or even an electronic device, you put in a set of controls at the completion of the equipment. So that you operate the machine by the controls, and not by the machine itself. It's like a car, you don't get under the hood to operate it - you stay in the driver's seat, and according to destination and according to traffic conditions, you operate the control panel to control the machine. If you would consider the human structure, somewhat as a machine, you would find the controls to be in the brain. There are many sub-conscious controls as well as conscious controls. But they are always in the brain. They are not in the muscles. As a result, we have to make mighty sure that we operate the controls. If we want the embouchure to function, we must put a message in the brain that will bring about this function of the embouchure. And it is always a musical message. We can't do it by the study of embouchures. We have to do it by the study of sound that an embouchure makes. You can have trial and error processes of shaping; these are perfectly legitimate. But the fundamental is to sing with the lips. You can add the rest to it. This is very basic for any brass instrument. It's not a matter of segmenting embouchures, diaphragms into various musculatures. You have to go into the comprehensive aspects of thought that will bring about physical response - psycho-motor activity. You'll find the emphasis for the brass player is just like that of the singer: the song obeying the acoustical laws that govern his instrument, but he must sing into the instrument with his lips.

Q. What would you say is the philosophy of your teaching?

A. Basically, I try to help the student based on what I perceive to be the problem. Once we find the student has a fine instrument and good mouthpiece, then the problems are in the player and not in the equipment. We have to first make sure that he has good equipment, or at least satisfactory equipment. At that point, we delve into the problems of the player. I have to know where the problems are. I need to know what the student is motivating. Frequently, it's not just what he tells me he's motivating. But I have to go through a series of physical tests to find out what he's motivating. Now again, we get into textbook type of approach here, which is long and involved. But I can simplify it by saying that I make a survey of what that student is like when he comes into the room, based on the way he approaches his instrument and musical characteristics, and based on physical characteristics as well. But I try to be helpful to the student, primarily in his art form, so that music is dominant over the things that might go wrong. The positive aspects of what must be right musically are what we enhance. There are vast differences in structural aspects between individuals. There are differences in the musculature of the lips and the ways the nerves feed to the lips. There are tremendous differences in pulmonary function and the respiratory activities in individuals. As you know, you're a giant. You have an enormous lung capacity. I'm only a medium-sized fat man! I probably have half of your lung capacity. It means I have to use it quite efficiently because I have nothing to waste but there are differences. You can't teach one way in terms of physical application. You teach principles. There should be quantitative inhalations based on at least a 3/4 inhalation for general playing purposes. Tuba players use air in large quantities very freely under low pressure, but in fairly large quantities. We have to be free to use this comfortably to where it doesn't give us much of a problem. Then we can concentrate on our tonal aspect and of our message to the audience. In order to do that, we have to keep away from (I would use the analogy of the gas tank in a car) the last 1/4 of the fuel tank which very frequently can suck up dirt in the carburetor. The last 1/4 of our human fuel tank, as far as respiration, can also have, you might say, very

negative influences on our ability to play. Primarily, we try to avoid getting too far toward the end of our breath. That frequently means to start with more so that you can protect ends of phrases. I usually express myself by saying that you should be free to waste your breath, not try to conserve it, but establish excellent tonal characteristics as you do that you are conserving breath anyway. In other words, as you control the tone, you will have controlled not only the musculatures, but you will have controlled the air as well. As you learn to control sound, you will have controlled whatever gives you the sound. If you segment into the parts that bring it into being, the building of the machine, you will be bypassing the excellence of your own brain, where there's a computer-like activity that will establish the controls. So even from the youngest student trying to play the instrument, I frequently ask that they start out with an excellent sound. I play for them. I take their instrument. I play one note if it's a tuba. I might play a middle Bb or the F below it, but I use the tuba player's mouthpiece and his instrument so the only variable is the player and not the instrument. And I say: "Listen to this carefully. This is what a good note sounds like on your equipment. This is what a bad note sounds like. I have them think about it for a moment to establish recall in silence. Then I ask them to try to sound the way I did. Imitation is like putting a player piano roller on so that the keyboard knows what to do - the act of trying to sound like a very good player. The first thing is that the computer level of the brain tries to bring it in - adjust his tissue until it begins to sound that way. So what I'm indicating is the development of the brain of the musician. Not worrying about lips, the diaphragm, the various segmented tissues, but his art forms. Taking quantitative breath and going ahead. He has to pause and has to learn that the lips do vibrate. But it is always a matter of focusing what comes out of the bell of the tuba. You have to actually have a constant perception of what you want the audience to hear versus the feedback which will come as to what you are actually hearing. Now the very emphasis should not be on what you're hearing, but what you want to hear.

Q. In other words, when the person is playing, he should be concentrating much more on the end product they would like, rather than what is coming out.

A. Exactly. You don't want to sit and listen to yourself play anymore than you want to sit and listen to yourself when you talk to somebody. You actually have to have the motor activity of communicating to somebody else while playing. You will listen - there's always feedback. It should be 10%, 20% of the total. So 80%, 90% is the elementary artist who is going to deliver the message to somebody - interpret for somebody - interpret for somebody else like the actor. Even in the most elementary stage, a very young player should not be focused on learning to play the tuba. Rather, he should learn how a tuba should sound. In the act of learning the sound, he is learning the tuba. The emphasis is then on the creative aspect of the sound phenomena, what he wants to do with it, in other words, his product is sound and what he is going to do with it in terms of phrase, dynamics, emotion. He has to communicate. He has to work always with motor systems which, in nature has to do with influencing the external environment, not the internal environment. That means his tools are very much like those of an actor or singer. He has to become an artist. In the beginning, he's an elementary artist, but he is still an artist when he plays a scale, all the ingredients of

the scale. He should also recognize that all these could be transferred into a solo. A scale could be in the style of Mozart or in the style of Brahms. A long tone should not just be a long tone as an exercise. It should be taken out of what this tone could be used as part of a fine solo, or as part of an accompaniment. It should not just be a bottom fog-horn sound. It should be a quality and should have expansion. But always your plan is the art-form, rather than the meat, the muscles. All muscles are

under control of the various levels of your brain. We should work with the levels of the brain that are going to cause the muscles to react. So you don't work with the muscles, you work with the thoughts that will bring them into function.

Q. Hearing a musician as an artist rather than as an athlete ?

A. Of course! But an athlete never works out - he works by accomplishments. For example, my wife was a dancer, which is like being an athlete. She didn't worry much about the various muscles of the body that she was using. She knew what she had to do with her limbs and expansions and the various maneuvers. She did not concentrate on the muscles, but rather on accomplishments.

Q. What advice would you give the young tubist who wants to make playing music on the tuba his profession?

A. First of all, he has to love to play. If an individual gets satisfaction out of personal practice rather than just ensemble playing, if his satisfaction comes only from the ensemble situation, he's handicapping himself. The student has to have a series of challenging elements that he responds to. You might compare this to a prize fighter. A prize fighter has to go through conditioning. He does a great deal of bag-punching, rope jumping, and rope work. Now, he could be excellent in all of this, but when he entered into the ring, he'd get his head knocked off because you have to have a great deal of experience in actual fighting, which they call sparring. He has to build up on that basis. There's a balance between what the student must respond to in the way of development. There must be considerable development in drill forms. There has to be scales, interval studies, slurs-the great variety of challenges that we do go through in the drill form. I like to put it to the students in this manner: that 40% of their practice should be in the conditioning; studies; the bag punching and rope jumping. 60% in the interpretive aspects of music. Basically, tuba is an accompanying instrument. Rarely does it go out and carry the melodic line. We're usually accompanying somebody else. And as a result, because we are getting a great deal of challenge in accompaniment, we fail very frequently to develop as the soloist - as the one who interprets for the audience. So we have to make up for the lack by putting it into the studio practice. I like to put it this way. 40% vs. 60%. If a man is on a job and he is out playing all night, like Doc Severinsen, he may want to put 80% in drill form in his personal practice because he's out doing interpreting constantly. The first horn player in a major orchestra is always the soloist. He may want to put a great deal more time on the drill forms. The tuba player puts in equal time on the drill forms, but he doesn't have equal time on the stage. As a soloist, we have to take our balance. We must consider it like a diet. We have to have the proper intake, well, there we have to have response to proper challenges that will develop the player. As a result, you must put the major portion in interpretive music. Now that means a wide variety - means music of the day. When I was young at the age of 15, I started playing a lot of dixieland tuba. We used banjos there because we didn't have the proper microphones and so forth. So we used equipment that could be picked up. A few years later, they brought in the proper mikes so they asked me to switch over to string bass. They put the banjos over on guitar, playing a different lead. But always young players should develop according to the music of his day and of yesterday and what he sees for tomorrow. Now he must not be just doing. It is very important that the young player play music that has tradition. If he hears a great trumpet player play a great solo, he should try to play just as well on the tuba. He should learn phrasing at first by imitation so that he has a base for his own creative thoughts at a later period. But in the elementary aspects, where he is acquiring abilities and developing according to challenges. It is perfectly legitimate to imitate characteristics from a wide



variety of fine musicians, absorb their abilities, your own creativity must be built on top of this as well. But the point is, you do not consider tuba, you consider music. I knew nothing about nothing as a youngster, you might say. But I was brought up where there was a great deal of music. And as a result, I played all sorts on a fine day from Madame Butterfly, the wonderful soprano solo, on the tuba, and I enjoyed it very much. I wasn't doing it for the public. I was doing it because I enjoyed playing it, But I would have similar emotional aspects that the singer would use. If the voice would break, I would put a break in the tuba. But I loved jazz - I still love jazz. But I don't get a chance to play it anymore, but I love to listen to good jazz. But what I'm trying to indicate is that there's the variety of challenges that a musician should respond to, and today's market, believe me, it cannot be just one thing. I have many players on the tuba getting into trouble coming to me today because they try for extremes too soon. They hear a great tuba player playing extremely high notes, extremely long phrases in Bach, and so forth. The young players try for extremes before they develop their norms. Now, always the development should be for qualities of tone or tonal characteristics according to his own advancement. It doesn't hurt to delve moderately into extremes as long as 5% limitation is put on it, or 10%. That means 90% would be in the norm. After wonderful playing of mid range work, great development and the ability to play a song, an Ave Maria, an adagio, a polka, a little jazz, a french horn solo in the mid range, then 5% or 10% can be above high C. Extension of phrase should never be at the expense of quality of tone. Quality of tone should be achieved first before the long phrases. I have a constant influx of players who are running into trouble by trying to extend phrases too long. So they keep playing softer and softer. It is all right to play soft. But it can become extreme. In other words, extreme loud, extreme soft, extreme high extreme low are all difficult. The norms lie closer to the center. And when we develop there, we move the excellence to the extremes. If they go to the extremes too soon, they build patterns that are troublesome for me as a teacher. One of them is, of course, if retention of air brings about over-activity of the inspiratory muscles, they never let go in the expiratory phase. And as a result, when they start the next breath, the inspiratory muscles are already in somewhat of a conflict between the expiratory group. Both groups remain activated in the second breath. As a result, they get more of a gasp. They don't get a quantity of air. This does not usually occur if the phrases are not purposely made long and the dynamic level is split between the minimal sound and the maximum sound. The average dynamic would be a sound that can be heard comfortably in a nice room, a nice auditorium, where the performer does not have to strain. He should be able to make a diminuendo from it and crescendo from it. Somewhere in the middle should be the basis. Then as you achieve excellence, you begin to go for the quality of tone. Think of this as like the control knob on a radio. You turn it down, but you do not lose the qualities of the sound. The same thing occurs when you play softer. You should keep the quantities of sound all the way back to pianissimo. You learn to play a louder sound with excellence of tone, not by great physical effort. So, the motivation is always in the art form. The same thing applies with the extreme highs and lows. You can't immediately have a great sound when you play very high or very low. But you develop it just like you did in the mid-range. You establish always the sense that-well, I'm elementary in the very highs and in the very lows compared to the norm. So you start developing into excellence. You can take bad sounds and convert them into good sounds, but you can't take silence and do it. You have to go through the developmental aspects.

Q. It has been said by a number of people and critics that the symphony orchestra is a dying art form. Do you think the symphony orchestra will be with us in another hundred years?

A. It only dies if we don't have an audience. The people who say that it is a dying art form are often looking at the numbers of the population. Certainly in this country the number of symphony orchestras have increased dramatically since I started out in the business. The amount of audience has also increased dramatically. Maybe it is not proportionate to what the rock groups would have, or with what they are in Europe. I can not say that it is a dying art form. I would say that it could be killed. It could die off because there are economics involved. But as long as there is an audience and some financial support, it will continue. I think it will modify. There are some modifications coming according to the music of the day, and with something that maybe I can't perceive today. But this is life. Nothing ever stays the same. But the terminology, symphony orchestra, if you think of it as a Beethoven or Brahms, might change dramatically in 50 years or so. I don't know. But I think that there will still be some large musical combinations because people do love to play instruments. There seems to be almost a moving away from the constant sitting in the stands and watching the game, to participating. It is a marvelous hobby for players. It is wonderful therapy for people in a sense who are in intensive mentalizations in other fields. Music is actually a wonderful therapy. People do enjoy listening. It is amazing when you think of the numbers who do enjoy participating. I think that as long as people are willing to participate, there will be symphony orchestras.

Q. T.U.B.A. has opened up many new avenues of performance and changed many people's concept of the tuba. Do you think that the tuba will actually be accepted by the general populace as a solo instrument?

A. It is already accepted by tuba players. All low register sounds are under somewhat of a handicap in terms of appealing to an audience. There seems to be an acceptance of higher sounds. I suppose our psychologists would have to delve into this. Low register sounds usually require greater effort to produce. With that I mean, in terms of just like loud speakers, and so forth. Their efficiency is less. We always find tuba players trying to play higher. If they're using the contrabass tuba, they are still trying to play like baritones in their solo playing. Baritone players are frequently trying to sound like trumpet players. But what I want to indicate by that, is that if you use the generic term (tuba) this could mean soprano, alto, tenor, baritone, bass, and contra bass. The tuba, of course, could be a fine solo instrument. I think the contrabass tuba can be considered a solo instrument already. It's obviously being made that way by Harvey and Roger and by the many other fine players. I think that it's possible to have an audience that is conditioned to hearing piano, violin, flute, voice, etc. to be equally responsive to the tuba. I just haven't seen any evidence of it. However, there are people who love to listen to brass instruments. Now, these people would be an audience. I did mention that there is conditioning here. We are going through a period in schools and the like where they are moving back toward jazz bands and the big bands. This would be a conditioning where you're actually bringing about a potential audience for the future. We are going through a period, thanks primarily to Harvey, (we must give him tremendous credit for this), where there is this search for material for the tuba. There is also a great conditioning going on to having people listening to tubas. Always when you deal with the phenomenon of conditioning, you can predict that there will be an awakening of interest. I cannot say how far it will go in competition to the soprano and alto sounds. However, I love to hear tubas. But I'm not a classic example. I love to hear soprano sounds, too. I love music. At my age, I still wouldn't be in it. I enjoy my work very much. And I enjoy listening as well as playing. But I still say that when you put a tuba player out in front of an audience they will enjoy a great artist playing whether it's a tuba or anything. Whether they would like to hear it constantly is another story. So I leave that wide open for another generation.

Q. I guess that will conclude our interview for today. Thank you very much, Mr. Jacobs.

A. My pleasure

About the author:

Paul Haugan, 21, is presently a free-lance tubist in Chicago, Illinois. In 1971, he studied with Chester Schmitz at Tanglewood. He began study with his primary teacher, Arnold Jacobs, in 1972. He also studied with Abe Torchinsky in the Summer of 1973 at Aspen. He was the solo tubist with the Nurnberg Philharmonic and the North Bavarian Brass Quintet in Germany from 1974 to 1976 Paul studied with Robert Tucci and Klaus Jochim-Sordel while in Germany.