

Cannon, Cynthia, "Arnold Jacobs", UNPUBLISHED

It is a perfect summer day on the shores of Lake Michigan at the Evanston campus of Northwestern University. Joggers are jogging flowers are blooming, lovers are kissing, and about one hundred wind players are rushing to close themselves into a windowless auditorium for three hours. Dashing towards the air-conditioned darkness are French horns, trumpets and trombones. Singers, conductors, school teachers from California, teenagers from South Carolina, and members of the CSO are all making a beeline for the auditorium. They've come from as far away as Israel and as close as Peoria, and they've come armed with instruments, tape recorders, and notepads.

Inside the gloomy auditorium, workers are flitting about like butterflies. One pushes a life-size flip chart of the human body to the center of the room. Each translucent page of the chart reveals a graphic diagram of human muscles and tissues which are usually kept discreetly tucked beneath a layer of skin. Two other workers have moved a table to one side of the room and are busily covering it with a very odd assortment of objects. Placed in no discernible order are water glasses, drinking straws, tubes, gauges, spirometer (!?!), pneumograph bands (whatever they are!) and an oscilloscope.

A tall, laughing grey-haired man wearing glasses strolls happily into the room greeting people along the way. A current of excitement runs through the crowd.

"That's him!"

"There he is!"

Who is this man, what are the scientific looking graphs and objects for, and why have so many musicians willingly given up such a lovely day to listen to him talk?

He is Arnold Jacobs known to many as "The Doctor of Brass." His highly scientific approach to dealing with the types of breathing problems inherent to playing wind instruments (including the voice) has revolutionized teaching methods in this century, much like J.B. Arban did in the last. For 40 years he was the principal tuba of the Chicago Symphony Orchestra, and one of the founding members of The Chicago Brass Quintet.

Incredibly, Jacobs reached the pinnacle of his profession while fighting a life-long battle against chronic lung disorders. As a child, he suffered from an assortment of medical problems including scarlet fever. But his greatest disability was caused by a health problem termed "cardio-pulmonary disorder." Although Jacobs had two lungs, his breath capacity was only a little greater than that of a person with one lung. Young Arnold's parents encouraged him to take up the cornet when he was about four years old in an attempt to strengthen and develop his lungs. At that time, Jacobs began his love affair with wind instruments which sustained him throughout his life. Playing the tuba has saved Jacobs' life in more ways than one!

The crowd becomes still as Jacobs walks to the center of the auditorium like an old-time revivalist preparing to preach. A hush falls over his congregation -- they are sitting on the edges of their chairs with their tape recorders out and their horns handy, waiting for the word.

"Any questions from yesterday's session?" Jacobs asks.

Someone in the back raises a hand and asks tentatively about throat closures and escaping air. Jacobs rocks back and forth on his toes a couple of times and smiles.

"Put your fingers in your mouth and blow,hard!"

One Hundred adults stuff their fingers into their mouths, and blow as hard as they can. As their cheeks puff out, the room is filled with a sound not unlike a large kindergarten class pretending to be Indy 500 race cars.

Jacobs seems to be energized by the sound, and, filled with high spirits, he begins to proclaim the word according to Jacobs:

"You see, you must get away from music to truly understand what your body is doing. Sometimes there is a physical problem, but more often than not, if you have closures and escaping air, you have bad habits! As musicians, we play by habit and condition. Our repetitions have become neural pathways in our brains. In order to change the patterns you must first change the stimulus. You must introduce strangeness! Strangeness can create change! Feel the air coming into your body. Pay attention to where it's going. Think of Dolly Parton!"

The group practices inhaling. Chests expand in an exaggerated manner, and laughter bursts from the students when they look at one another. Jacobs grins, and points out that although understanding the mechanics of breathing is very important....

"You must know your own body. You must know how much air you can hold, and for how long. This is basic. But it is mechanical -- it is not the whole point."

Taking a trumpet from a man near the front, he continues:

"This is a trumpet. You do not hear a trumpet playing, You hear a human being. The trumpet cannot play by itself, but the mechanics of breathing are separate from the music."

He invites a seventeen year old tuba player in the back row to come down and perform for the group. The young man is obviously nervous, but bravely performs a technically difficult piece, playing the notes accurately.

Jacobs chats with the young man to put him at ease, then selects a short passage from the most difficult section of the music.

"Put your horn down and sing this to me," he says.

The young man sets his tuba down, and sings the passage tentatively.

"Now. Close your eyes, and think about what it would sound like if the best tuba player in the whole world were playing it. Now, imitate for me what you just heard in your head."

The young man closes his eyes, listens for a moment to something the rest of us can't hear, and then plays the passage again. The difference in sound is amazing.

"You see? Your breath is not a big deal. Everyone breathes. We've been doing it all our lives. Music is the big deal. When you play mechanically -- just by blowing, valves, and embouchure -- God knows what you'll get! Remember, your horn is just a mirror in your hand -- a mirror of what's in your head. You

must play wonderful sounds, not just technically perfect notes. You must hear the music! Check your brain, and imitate it. You must keep singing in your head."

With one break, during which Jacobs drinks a glass of milk brought to him by his wife, class continues for three hours. The time flies. Arnold Jacobs is a great musician and a spellbinding speaker. After the class, students line up to speak to him, looking for all the world like moonstruck teenagers at a Madonna concert. He takes the time to speak to each one, and it is another 45 minutes before we head over to the campus cafeteria for lunch. The cafeteria has a beautiful view of Lake Michigan, and for another two hours, we admire the view and talk about music. It is a long day for a man who has suffered both prostate cancer and a heart attack during the last five years. But Jacobs' interest and enthusiasm on the subject of music is unflagging, and he happily embarks on the tale of his career.

When he began to play his coronet, his Mother taught him bugle calls, and he loved to walk around the neighborhood at night playing Taps and other calls. "People would put their heads out of the doors to see what the heck was going on!" When he was eleven, his Dad brought him a trumpet -- no instruction book, just a trumpet. He had a picture hanging in his bedroom of Saul Castor, the 1st trumpet of the Philadelphia Orchestra. "He had a beautiful embouchure -- there was a kind of a satanic look to him when he held it, but it was a wonderful embouchure!" The 11 year old Jacobs stood in front of his bedroom mirror and imitated Saul's facial position, thereby teaching himself embouchure. Jacobs laughs, "Good thing for me and my future as a tuba player that I didn't have a picture of Dizzy Gillespie hanging on my wall!"

At about the same time, he bought his first trombone from a hock shop for \$10.00. Although it was tied together with string and tape, it was a silver-plated Philadelphia Keefer with a gold bell. It was a beautiful instrument, and Jacobs still gets dreamy-eyed when he talks about it. But unfortunately for Jacobs' future as a trombonist, tragedy befell the instrument. While touring with his family in a '29 Hudson through the Kent mountains of West Texas, the trombone, which was strapped to the running hard, fell off and was lost. When Young Arnold returned to school in the fall, the leader of his Jr. High band had only one instrument available for him to use: the sousaphone. And because he had already taught himself "Carnival of Venice" on the trumpet, he was an instant success. He took a job with the Newsboys Band, a group sponsored by the local newspaper, who lent him a tuba to practice on. The band won a contest, and in 1930, at the age of 15, Jacobs won a full scholarship to the Curtis Institute in Philadelphia.

Fritz Reiner was the director of the Curtis Institute at the time, and Jacobs' conductor. Phillip Donatelli, the first tubist of the Philadelphia Symphony Orchestra, was his tuba teacher. "I was amazed when the Curtis Institute chose me for a scholarship. I played well for my age, but there were others who I thought were more gifted at the time. They must have seen something though...." He bought his first tuba from Donatelli for \$175.00. It was a York Double C Tuba, one of the two originals ever made. Many copies of the instrument have been made since, but Donatelli had one of the original two. Unfortunately for Donatelli, his Italian passion for pasta interfered with his ability to play his York tuba. Whenever Donatelli inhaled, the mouthpiece was pushed away from his mouth by his protruding belly! Donatelli's loss was Jacobs' gain, and Jacobs was thrilled with his new instrument.

He took his new horn to a rehearsal with Reiner, and when he blew his first note in Bach's Toccata and Fugue in D Minor, the difference in tone was so noticeable that Reiner's head jerked up, and he stared straight at Jacobs. During the break, Reiner asked Jacobs to play his new instrument at all rehearsals.

Although Jacobs was pleased with the success of his horn, getting it back and forth to rehearsals was a complicated process. Everyday, young Arnold struggled onto the crowded trolley, trying to find a place for himself and his ungainly instrument. One day when the trolley driver slammed on the brakes, the woman standing in front of him had a slight mishap! She was fat, and she landed her rear end right in the bell of his beautiful new tuba and got stuck! Although the woman was eventually extracted safely, the rim of the bell was bent, and Jacobs was at the end of his tuba-toting rope. He marched angrily into rehearsal, and told Reiner that he couldn't stand it anymore, and he absolutely refused to keep toting his tuba on trolleys or trains! But Reiner liked the sound of the York so much, that he arranged to have a limousine pick up Jacobs and drive him and his tuba to rehearsals in style!

After finishing at the Curtis Institute, Jacobs played in the Indianapolis Symphony for two years. Then "the great trade" occurred. Reiner was the conductor in Pittsburgh by then, and he wanted Jacobs so badly that he traded his first cellist in order to get Jacobs to Pittsburgh. The trade occurred long before baseball trades became an every day event, and Jacobs jokes that he personally set the precedent for the sports trades of today! By the end of his fifth season with Pittsburgh, Jacobs was a hot item. In the space of two weeks, he was offered positions with the New York Philharmonic, the NBC Symphony, the Chicago Symphony Orchestra, the Boston Symphony, and the Philadelphia Symphony Orchestra.

"It was a fascinating time. Everyone was short of tuba players, and I was in great demand!"

Since Jacobs' wife was originally from Chicago, Jacobs happily took the position with the Chicago Symphony Orchestra in 1944. With the exception of a temporary leave in 1949 when Jacobs toured England and Scotland with the Philadelphia Orchestra, Jacobs remained with the Chicago Symphony until his retirement.

Jacobs' struggle with his own breathing difficulties bore fruit in a new way after his move to Chicago. He became friends with Dr. Benjamin Burrows of the University of Chicago, who arranged for Jacobs to have access to the pulmonary clinic of the Billings Hospital. In the lab, Jacobs set up experiments for measuring and monitoring lung intake and output. He invited his friends from the Chicago Symphony to participate in the experiments. Bud Herseth (trumpet), Bob Lambert (trombone), and Philip Farkas (French Horn) all allowed themselves to be hooked up to various monitors while they played. But in the long run, the volume of lung "output" was sometimes disturbing to other researchers working in the lab. Besides, Jacobs decided it would be more convenient to set up a lab in the basement of his own home. To the great relief of Mrs. Jacobs, Jacobs decided to experiment with alternative types of lab equipment rather than investing in high-priced medical monitors. Creating his own lab in the basement was an extremely creative endeavor for Jacobs. Apparatus for his lab came from diverse sources. Some of it was donated by friends in the medical field, but some of it was as simple as kitchen implements borrowed from his wife. He used drinking straws from the neighborhood soda fountain, and he bought gauges used by heating and air-conditioning companies for measuring air escaping from industrial units.

Musicians from around the country became interested in Jacobs experiments, and they began to beat a path to his door. Jacobs helped them to re-pattern their breathing and develop their musicianship. Although Jacobs' primary instrument is the tuba, he has helped people learn to harness the wind -- whether they play a wind instrument, or sing.

Although he remained with the CSO, his activities were definitely not confined strictly to the Symphony. He was the first tuba player to ever be invited to the Casals Festival in Puerto Rico in 1962. He was a

founding member of the Chicago Brass Quintet. He has taught the tuba at Northwestern University for the past 20 years. He has coached the Civic Orchestra of Chicago. He has won many awards: the Medal of honor from the Midwest National Band and Orchestra Clinic (1985); the highest honor from the Second International Brass Congress (1984); and an honorary doctor of music degree from VanderCook College. He is the soloist on the Chicago Symphony DG recording of Vaughan Williams' Tuba Concerto, and has recorded "just about everything the CSO ever did!"

With all of these activities to keep up with, how did he find time to practice?

"When I was working with the Chicago Symphony, I tried to practice three hours a day, plus performances. The more advanced you are, the more practice time you need because you have to keep up with material, and cover more and more ground as a player. You really have to challenge your abilities in all directions, otherwise you begin to lose your repertoire. What was easy one year, will be much more difficult a few years later. At a certain point, you don't need the muscles so much as a fresh image; a way to keep from being bored."

Jacobs' grin stretches from ear to ear.

"But that's not my retirement practice schedule! My retirement practice schedule goes something like this: Zero. Zero. 20 minutes. Zero." He laughs. "When you get older, your body changes and your endurance lessens. The time comes when you must learn to use your body differently -- it's like learning to play a new instrument.

Age brings physiological changes that bring about mental changes. The air we take into our lungs is tied into every emotion in our body. It affects our circulation. If you become frightened about loss of air, your muscles will tense and you'll cut off even more air. For a singer or a wind player, you must have confidence in your capacity to hold air or you are lost.

It's a lot like driving a car. You must know your own car. Some cars, particularly when they get older, need to be filled up when they get down to 1/4 tank. The human body is like that too. As you get older, you must change the way you breathe to correspond with your needs."

Jacobs has had ample opportunity over the last several years to practice what he preaches. In 1982, he was hospitalized with prostate cancer. The following year, he had a heart attack. Frightened, lying on the table waiting for heart surgery, he did exactly what he has advised countless students to do: he listened to the music playing in his head. He heard the singing from a thousand different performances, and he started to play along. Hoping to both ease his fears and keep oxygen flowing into his heart, he began to blow his tuba, puffing away on Wagner's "Maestersinger Prelude," while lying on the operating table. Courage returned with music, and he was able to face the operation with renewed hope. His doctor commented later that the breathing exercises probably helped to save Jacobs' life.

Jacobs retirement from the CSO was not due to cancer or heart problems, but due to failing eyesight. Today he teaches Masterclasses at Northwestern, and hopes to start a Geriatric Jazz Band; he is particularly fond of Dixieland! He likes to listen to Billy May albums, and he loves Spike Jones. He also enjoys reading science fiction, and is a bit of a "Trekkie." He is passionately interested in foreign affairs, politics and, of course, the field of medicine.

Does he have any regrets, or wish he had chosen a different path? He smiles his rather wicked grin.

"Well, I'll tell you one thing I don't have any regrets about! I'm glad I wasn't an oboe player. We lived with another couple for a while -- he played the oboe. Gizella and I used to go out dancing every night while he stayed home working on his reeds! He was always working on his reeds. We used to feel sorry for his wife.

And of course, I gave up a potentially lucrative career as an actor."

He looks quite serious, but I have the feeling he is pulling my leg.

"Yes indeed. I could have been a movie star. I was in a silent movie with Mary Pickford when I was about four or five. I remember I got to eat an ice cream cone in the movie. They gave me \$5.00....and the ice cream, of course!

And I'm quite sure I would have enjoyed being a doctor. But overall, I would have to say that I have no regrets. It's been an awfully interesting life."

He smiles, and indeed, there isn't a trace of regret in his eyes. There is only the impish gleam of a small boy peering out on a world full of fascinating possibilities -- of summer days, and sailing ships, and tubas still to sing....

Jacobs' Equipment and Preferences:

**INSTRUMENTS:** "I own two York Double C Tubas. They are the original two made, and they were made for Donatelli and the Philadelphia Orchestra. The first one I purchased from Donatelli for \$175.00 in 1933.

The second one I located some years later at a University in Oklahoma. It was in really bad shape -- full of cockroaches! I remember I traded two B Flat tubas for it, and had quite a time getting it cleaned up.

The Double C's aren't unique anymore like they were when I first got mine; except in sound. Mine have a unique sound.

**MOUTHPIECE:** Jacobs uses a Helleberg made by the Conn Company specifically for Helleberg himself, with modifications by Reynold Schilke. He bought it for \$2.50 when he was a student at the Curtis Institute. At the time, Schilke did not have a shop of his own and had to rent the machinery to make the modifications for Jacobs.

He has also played with a computer-designed mouthpiece by Fred Young. Young was searching for a deeper, darker sound by attempting to eliminate the overtones. Young experimented with his new mouthpiece design in Jacobs' basement lab, and did in fact manage to produce a pure soundwave. However, the musical effect was not what Jacobs was looking for, and he still uses his Helleberg.

**VALVE OILS:** "People send me big bottles of it, and generally I use the first one I set my hands on. But I like the AI Cass oil..."

Mrs. Jacobs: "And sewing machine oil is very fine too! Arnold's used sewing machine oil a good deal!"

"Yes. Any highly refined oil is alright with me."

CASES: "Generally the Symphony would provide people to move my instrument.

Mrs. Jacobs: "But I made him a very nice brown corduroy case he liked a lot.

"Yes. it was nice and light. The instrument is heavy enough without the extra bulk of a heavy case.

FAVORITE REPAIRMAN: "I don't know if you could call Renold Schilke a repairman, exactly, but he did modify my instrument for me when I needed. Pittsburgh always tuned to 440. But when I came to Chicago, they tuned to a 442, and I had a terrible time getting my instrument to go sharp enough. I was complaining about it to Reynold one day, and he went to his locker and took out a hacksaw and chopped a couple of inches off my slide, and by golly the horn was in tune after that.

I have also gone to Steve Lewis quite a bit."

FAVORITE PERFORMANCE: "There have been so many wonderful ones in my life I would have a hard time choosing just one. I loved playing Wagner under Fritz Reiner. In recent years, under Solti, I really enjoyed Bruckner. But I would have to say that anytime I get to play Mahler's 6th -- it demands such an incredible range and is so challenging -- I really enjoy myself.

FAVORITE NON-MUSICAL RECREATION: "I love foreign affairs and politics. I like to study anything. I love medicine. And I like to watch Star Trek!"