



The New York Flute Club

NEWSLETTER

April 2001

NYFC 2001 Competition Winners

ANDREW DAY (*first-prize winner*) was born in Melbourne, Australia, in 1978. In 1996, he made headlines in the Australian national news when he was named the Australian National Broadcasting Corporation's "Young Performer of the Year." He has performed as soloist on Australian National Television



and Radio simulcasts with the Melbourne, Tasmanian, and Queensland Symphony Orchestras. In 1998 he gave the world premiere of John Carmichael's revised *Phoenix Flute Concerto* with the Sydney Symphony Orchestra at the Sydney Opera House.

Mr. Day has received overseas study; scholarships from The Queen's Trust and Mercedes-Benz Australia, and has been awarded his Associate and Licentiate diplomas with distinction. In 1997 he performed at the National Flute Association's Chicago Convention as the NFA's Myrna Brown International Guest Artist. In 1999 he won first prize in the 44th Olga Koussevitzky competition for woodwinds, and performed a recital at Weill Recital Hall at Carnegie Hall. Andrew Day is currently a senior at the Juilliard School, where he is a student of Julius Baker. □

JULIETTA CURENTON (*second-prize winner*) was born in Alexandria, Virginia and has performed extensively in the United States. She has been featured soloist with ensembles such as the U.S. Army Band, the Arlington (VA) Symphony, the Baltimore Symphony, and the National Symphony.



Ms. Curenton's most recent performances include appearances at Avery Fisher Hall, Alice Tully Hall, the Kennedy Center, and Meyerhoff Hall. At the invitation of the late Jean-Pierre Rampal, Ms. Curenton recently traveled to Paris to compete in his International Competition.

In addition to Rampal, Ms. Curenton has studied with Jeanne Baxtresser, Claudia Anderson, and Doriot Anthony Dwyer. Ms. Curenton is currently attending the Juilliard School, where she is the recipient of the Irene Diamond and the Elsa Bickel scholarships under the tutelage of Carol Wincenc. □

NAM-KYOUNG KIM (*third-prize winner*) was born in Seoul South Korea, in 1979, and began studying the flute at age ten. In 1993 she was a featured soloist with the Seoul Symphony Orchestra, and in 1995 she performed with Julius Baker at the Che-Ju Daily News Recital Hall. Ms. Kim has been a featured soloist in Carnegie Hall. Her awards include second prize in the Um-Ak Journal Competition, first prize in the World Symphony Orchestra Competition, first prize in the Cho-Sun Daily News Competition, first prize in



the Che-Ju Daily News Competition, third prize in the Flute Festival Competition, and first prize in the Korean Flute Association Competition. In 1999 Ms. Kim transferred from Mannes College

of Music to SUNY Purchase, where she is currently a junior. Ms. Kim is a student of Bart Feller. □

In Concert

2001 NYFC COMPETITION WINNERS

April 22, 2001
Sunday 5:30 pm
CAMI Hall
165 West 57th Street

Program subject to change

Program

Andrew Day, *flute* — Stephen Gosling, *piano*
Fantaisie, op. 79 Gabriel Fauré
Sonatine Henri Dutilleux
Sonatine Pierre Boulez

Julietta Curenton, *flute*—Stephen Gosling, *piano*
Sonata Robert Muczynski

Nam-Kyoung Kim, *flute*—Nelson Padgett, *piano*
Fantasie sur un Air Allemand, op.22 Theobald Boehm
Density 21.5 Edgard Varèse

You are invited to a

Pre-Concert Ensemble Gathering on Sunday, April 22, 2001

at the Kaplan Space at Carnegie Hall, from 3–5 pm, prior to the NYFC Competition winners' CAMI Hall recital at 5:30. A transcription of *The Nutcracker Suite* will be played. Contact Rochelle Itzen if you plan to attend: itzenflute@aol.com or 212-982-2703 (phone).

IN THIS ISSUE

NYFC 2001 Competition Winners .. 1	
<i>Andrew Day</i>	
<i>Julietta Curenton</i>	
<i>Nam-Kyoung Kim</i>	
From the President 2	
<i>Amazed and Grateful,</i>	
<i>with photos and statistics</i>	
<i>from the 2001 Flute Fair</i>	
Member Profile 4	
<i>Gerardo Levy</i>	
From the Archives 5	
<i>Nancy Toff on the legacy</i>	
<i>of Eleanor Lawrence</i>	
Why Do Cold Flutes Play Flat? 6	
<i>by Katherine Saenger</i>	

Announcements

Pre-Concert Ensemble Gathering 1	
Flute Happenings 3	
Announcements 4	
Obituary: John Fugetta 4	



**THE NEW YORK FLUTE CLUB INC.
2000–2001**

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Eleanor Lawrence	1986–1989
Sue Ann Kahn	1989–1992
Nancy Toff	1992–1995
Rie Schmidt	1995–1998

Newsletter

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From the President:
Amazed and Grateful
by Patricia Spencer

In some respects the Flute Fair seems like Alice’s trip to Wonderland: every tiny door opens into a new and different and complex world. And in every case, the magic happened because of the generosity of not just one but a whole team of hardworking artists, coordinators, and helpers (all of whom are flutists!).

A special resounding thank you goes to our organizing committee. Pryor Dodge, Marya Martin, and Svyetlana Kabalin gave us a Fair deep in feeling for the memory of Jean-Pierre Rampal and incredibly broad in scope. The inclusion of the Asian flute panel—with very

PHOTOS BY MARC BROWN



As always, flute shopping in the exhibit hall was a highlight of the day; there were lots to choose from.



Karl Draber, Michel Debost, and Eugenia Zukerman provided very personal reminiscences of Rampal.

exciting contributions by Chen Tao, Dave Weiss and James Nyoraku Schlefer—was an inspired choice (one of many!) on the part of our brilliant Program Chair, Svyetlana Kabalin. Pryor Dodge’s superb photos of Rampal created a wonderful



atmosphere for the tribute panel and for the entire event. We can be particularly grateful to many who traveled long distances, including three on the tribute panel. Denis Verroust came from Paris, Michel Debost from Oberlin, Ohio, and Karl Kraber from Austin, Texas, to join forces with Eugenia Zukerman to give us informative recollections that brought Rampal nearer to us. Marya Martin’s generous work contacting performers and panelists was matched only by her efforts leading to the inclusion of the deeply moving video which closed the concert. And the performers on the concert were truly inspired—Linda Chesis, Marya Martin again, Robert Stallman, and Colette Valentine gave us one memorable, distinctive performance after another. A special treat, a rare performance of Jindrich Feld’s sonata, was made even more special by the presence and comments of the composer, who traveled here from Prague in order to join us in paying his respects to Rampal.

In the masterclass, a new generation learned from three pros who studied with Rampal: from top are Kirsten Tang, taught by Marya Martin; Kevin Willois, taught by Robert Stallman; and Jennifer Grim, taught by Linda Chesis.

Molto gratitudissimo to Rochelle Itzen for terrific work with the flute choir reading section. Also to all the teachers who brought their student ensembles for the Showcase, and to Elly Ball for coordinating that event. Pat Zuber's masterful organization of the competition, and the long dedicated work of the judges (Sue Ann Kahn, Nancy Andrew, Jan Vinci) are an incredible contribution. Guest panelists, including the Baroque dancers Carlos Fittante and Ani Udovicki and the composers Elizabeth Brown and Colin Homiski (in addition to Jindrich Feld), provided another dimension to the day.

A truly huge kudos goes to retiring Exhibits Chair David Wechsler, who somehow found the time to also give an extremely helpful intonation panel with Kathy Fink. To all the exhibitors, special thanks for a continuing and rich collaboration. And to all the board members—it is truly amazing how much work they put in. Nancy Toff, in addition to moderating the Tribute Panel, was co-chair of registration, ably helped by Laura George. Ardith Bondi, in addition to all her complex duties as treasurer, spent hours taking care of organizing lunches.



Chen Tao on dizi and Chen Sisi on jangquin (Chinese zither) give a virtuoso performance.



Mindy Kaufman of the New York Philharmonic shares a laugh with Harold Jones, former NYFC president.

Renate Jaerschky was again a special joy as volunteer coordinator, and *all* the volunteers are most warmly to be thanked:

- | | | | |
|-------------------|-----------------|-------------------|-------------------|
| Samuel Aronson | Michael Garland | Calvin Mercer | Virginia Schulze- |
| Jill Austin | Marcia Hankle | Rolf Meyersohn | Johnson |
| Carla Auld | Marian Heller | Sharon Powers | Judith A. Shea |
| Alexandra Brown | Ida Henderson | Michael Quigley | Michelle Smith |
| David Bruskin | Ruth Hirsch | Victor Richards | Beatrice Strauss |
| Louis Carlini | Amy Kriegler | Maria Rost | Jessica Torres |
| Samantha Enriquez | Arthur Levine | Monica Sands | Carol Weinstein |
| Marissa Funk | Chiung-Lien Liu | Katherine Saenger | Ed Wolf |

Our new technical coordinator, David Homan, has received raves and only raves from all who depended on him to set up their events. So together, on a “shoestring” and a spirit of generosity, we have all done something nearly impossible. I for one am awed and grateful—thank you all! □



Composer Jindrich Feld, who came from Prague for the occasion, with NYFC president Patricia Spencer.



Slam-dunk winners in this year's NYFC (Really) Young (and Cute) Artist Competition try out new instruments.

FLUTE HAPPENINGS

APRIL

April 21, 2001

Saturday 8:00 pm

A benefit performance for the Westchester Choral Society, featuring flutist **Paul Lustig Dunkel** with soprano Carol Meyer and pianists Michael Boriskin and Lyndon Woodside. The program of chamber music will include works by J.S. Bach, Fauré, Roussel, Piston, Bishop, Honegger, Varèse, and Copland.

• *Recital Hall of the Performing Arts Center, SUNY Purchase, NY* • Tickets \$40 from PAC Box Office at 914-251-6200 • Info, 203-353-9931 or 203-324-0728.

April 28, 2001

Saturday 8:00 pm

Paula Robison will perform Chaminade's *Concertino* and the Griffes *Poem* with the Hudson Valley Wind Symphony, whose flute section includes NYFC members **Marjorie Hone, Rebecca Quigley** and **Jane Tankersley**.

• *Norwalk Concert Hall, Norwalk, CT* • Admission is \$15; \$10 for seniors/students • Info, 914-576-HVWS (phone) or www.bvws.org (web).

Deadlines for Flute Happenings

Issue	Deadline	Mail Date
May 2001	04/19/01	05/07/01

2001 Flute Fair Attendance Statistics (provided by Ardith Bondi)

	1999	2000	2001
Total registrants	515	509	458
Students	185	182	147
Parents accompanying students	83	106	108
Seniors	19	13	16
Teachers with three or more students	11	10	9
Members	130	122	107
Non-members	73	54	69
Concert tickets sold	14	19	2



Scott Thompson consults with program chair Sijetlana Kabalin, attired in the latest electronic fashion.

FLUTE HAPPENINGS

ANNOUNCEMENTS

Jeanne Baxtresser will present a flute master class at the Juilliard School from June 16-24, with guest artists Carol Wincenc, Joshua Smith and Michael Parloff, and additional resident artists. Advanced performers and participants are welcome, as are auditors of all levels. Classes, lectures, mini-lessons and ensembles; daily option available. For more information, contact GSI, 12 Princeton St., Summit, NJ 07901; 908-608-1325 (phone), 908-608-1326 (fax); jbmclass@aol.com, www.jeannebaxtresser.com.

Drew Summer Music 2001, a chamber music workshop for winds, strings, brass, voice, harp and piano. Ages 12-22, coed; residency/commuting. Saturday to Saturday June 23-30, Drew University, Madison, NJ. Contact:

Virginia Schulze-Johnson, director, at 973-408-3428 or vschulze@drew.edu.

Flute course in Brownsville, Vermont, with **Patricia Harper**, June 24-30. Open to players of all levels of proficiency age 17 and over, the focus will be on concentrated flute study and ensemble opportunities. *Participants can expect to play daily.* For application and repertoire: Patricia Harper at rpharper@connix.com or 860-767-8637.

CLASSIFIED

Members may advertise in this section for \$10 for up to 320 characters/spaces. Your ad should be submitted by hard copy or e-mail. Name and phone number are required. Deadline is the same as for Happenings submissions. Ads must be paid for in advance. Make checks payable to the New York Flute Club and mail to the Newsletter Editor.

OBITUARY

John Fuggetta, president of the Wm. S. Haynes Company, died unexpectedly on January 23, 2001 at the age of fifty-seven. Mr. Fuggetta started working at the Haynes Company in 1960 at the age of seventeen, and purchased it thirty-five years later. A full-length obituary by John B. Levine, editor of the Haynes Company's newsletter *KeyNotes*, will appear in the Spring 2001 issue of *The Flutist Quarterly*.

Member Profile Gerardo Levy

*NYFC Member
since the 1960s*

Employment:

Member of the flute and chamber music faculty at New York University (in the department of Music and Performing Arts Professions); flutist with the New York City Opera Orchestra. Director of the Caecilian Chamber Ensemble (next concert scheduled for May 18th at the Bloomingdale House of Music).



A recent recital/performance: A program including Debussy's *Syrinx* and the Bach E minor sonata (BWV 1034), performed in Siena, Italy (where he teaches at the Sessione Senese per la Musica e l'Arte every summer) in July 2000.

Career highlights: Playing under such conductors as W. Furtwängler, F. Busch, E. Kleiber, V. deSabata and H. von Karajan. Giving master classes around the world, from Bulgaria to China. In Buenos Aires, Argentina, being solo flutist with the Orquesta Filarmonica, the Symphony Orchestra of the National Radio, and the Chamber Orchestra of the Sociedad Amigos de la Musica. While still in Argentina, playing Bach's *Brandenburg Concerto #5*, with Furtwängler at the piano. Before coming to NY, being principal flutist with the Springfield (MA) Symphony for about 6 years; later being principal flutist with the Brooklyn Philharmonic and the Music for Westchester Orchestra, and co-principal flutist with the Clarion Orchestra and the New York City Opera Orchestra.

Current flute: A silver Haynes (bought new in the late 1950s for \$327.50) with its original headjoint, selected with the help of Doriot Anthony Dwyer from among 25 he tried at the Haynes factory in Boston. A silver Haynes piccolo, bought shortly thereafter (for about \$150).

Influential flute teachers: Bruno Bragato, Doriot Anthony Dwyer, and Julius Baker.

High School: None—he did not attend high school! When he was 12 his family moved from Germany and settled in Argentina, where he would have attended high school had his family been able to afford it.

Degrees: B.A. in Music [1959, Boston University].

Most notable and/or personally satisfying accomplishments: Playing the Argentine premiere of the Nielsen Concerto at the Teatro Colon (Buenos Aires Opera House) in 1992. Working with composers such as Leo Kraft (who composed his *Dialogues* for flute and tape with Gerardo's playing in mind) and Otto Luening. For many years, being a member of the Queens College-based New Wind Quintet of New York with oboist Henry Schuman and G. Silfies (clarinet), R. Nakagawa (bassoon), and M. Secon (horn). Performing on recordings for the Ricordi, Vanguard, Serenos, CRI, Bach Guild and Master Virtuosi labels.

Typical practice routine: Two hours early in the morning, before a 9:30 am breakfast. (Gerardo lives in a thick-walled apartment building and has tolerant neighbors.) Scales, Maquarre's *Daily Exercises for the Flute*, etudes (usually Anderson, sometimes de Lorenzo), and—not surprisingly—opera excerpts. He tells me that parts of *Die Tote Stadt* (a New York City Opera production this season) can be pretty tricky.

Interests: Languages (he reads and speaks German, Spanish, and Italian), travel, reading, and stamp collecting.

Advice for NYFC members: Practice lots, talk little, and stay humble.

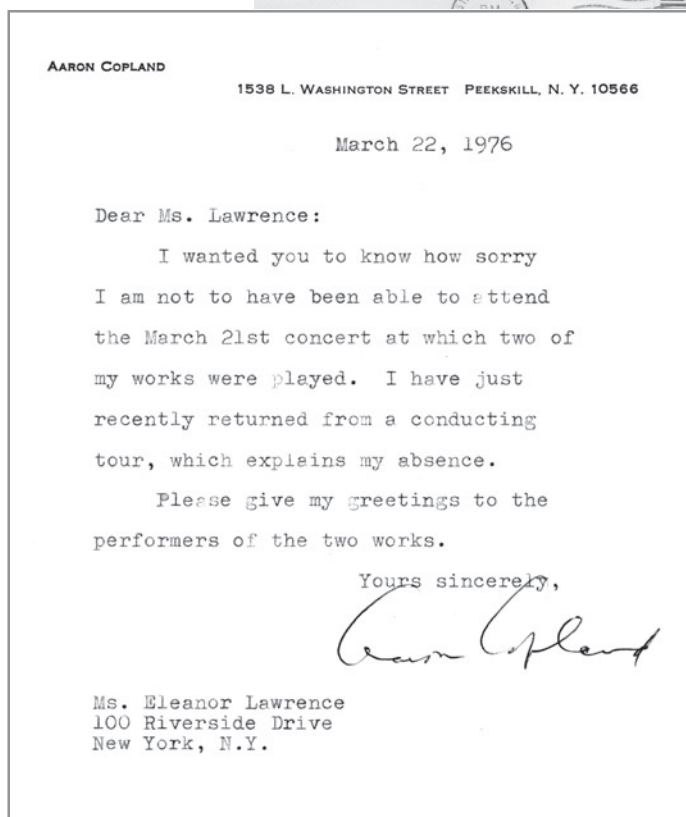
The Legacy of Eleanor Lawrence

New Additions to the Archives by Nancy Toff

In February 2000, Eleanor Lawrence asked if I would come over for dinner and help her sort through some papers she had found. Some of them, she thought, should go into the flute club's archives, and others (from her years as editor of the *NFA Newsletter*) to the National Flute Association archives at the Library of Congress. A few hours later, after I had organized the papers into piles on her living room floor, and then boxed them up again, she announced, "Now we can have dinner!" That evening took place a few months before she was diagnosed with brain cancer; after the diagnosis, I returned several more times to help her sort through additional boxes.

Here are some of the items that we found (some of which had come to Eleanor from the estate of Robert Lehman, long-time treasurer of the flute club, and curator of the club's 1980 exhibition at the New York Public Library, *From Hotteterre to Barrère*):

- the scores and parts for the music played on the flute club's 1976 bicentennial concert and recording, *The Flute in American Music*
- music by past NYFC members, including Quinto Maganini and Lamar Stringfield
- a carbon typescript of the inventory of the NYFC's long-lost music library



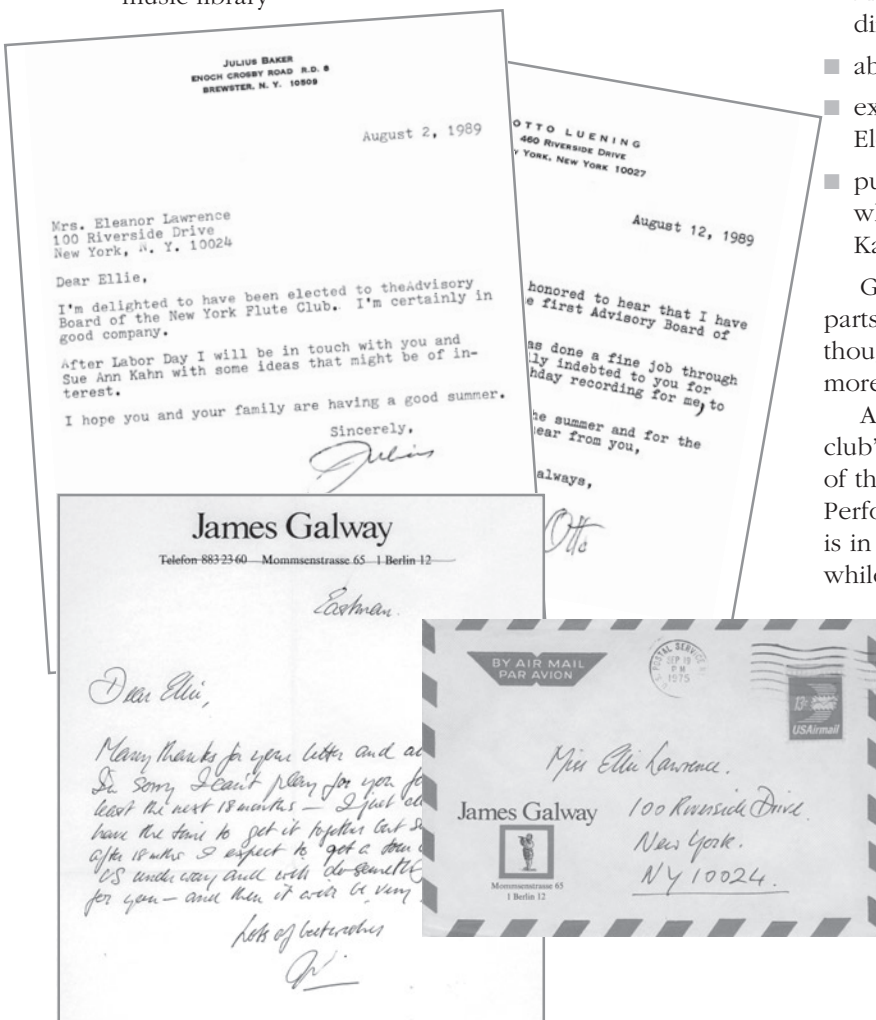
Aaron Copland's response to Eleanor Lawrence's invitation to attend "The Flute in American Music," the club's concert commemorating the American bicentennial.

- Eleanor's correspondence as three-term NYFC president, including letters from Robert Russell Bennett and Aaron Copland
- about twenty years' worth of board minutes
- extensive notes about the organization of concerts during Eleanor's terms as president
- publicity photographs and brochures for a variety of flutists who appeared at the flute club, such as Carol Wincenc, Karl Kraber, and Donald Peck.

Going through Eleanor's papers was one of the saddest parts of my job as archivist, but it is a tribute to her that she thought about preserving these materials even while she had more serious matters on her mind.

All of these valuable items will be transferred to the flute club's archives, which are conserved in the special collections of the music division at the New York Public Library for the Performing Arts, at Lincoln Center. (At the moment, the library is in temporary exile in the old annex on West 43rd Street while the Lincoln Center facility is being renovated.) Anyone who would like to see the collection can find it under the call number JPB 90-28. The collection includes programs, newsletters, membership directories and ledgers, information on club-sponsored exhibitions and recordings, and a growing file of board meeting minutes, correspondence, and related papers. □

Flute historian **Nancy Toff** is the archivist of the NYFC. She would be grateful to receive donations of any flute club memorabilia, including photographs of recent events.



Why Do Cold Flutes Play Flat?

by Katherine Saenger

[EDITOR'S NOTE: If you're uncomfortable with the equations in the article, skip them and pick up what you can from the words. Or just read this note and get the short answer right away: flutes get flat when they're cold because the speed of sound is slower in cold air.]

I started thinking about this question one winter many years ago, while walking to early morning band rehearsals at my Bronx junior high school. At the start of band practice, my flute would be very cold and very flat. As it warmed up to room temperature it would become more in tune.

The first explanation I came up with—thermal expansion effects—turned out to be completely wrong. Flutes *do* change in length as the temperature changes—they contract slightly as they get cold and they expand as they get warm. But the pitch change is in the wrong direction, since you pull *out* the flute to make it flatter, yet cooling a flute shortens it.

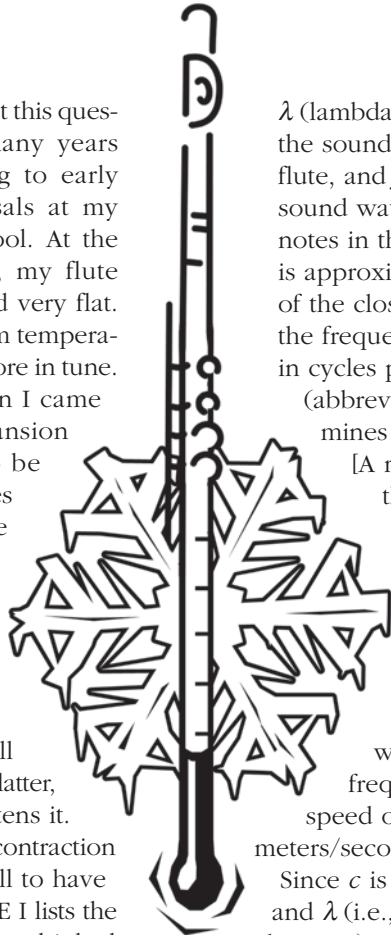
Thermal expansion/contraction effects are also too small to have much of an effect. TABLE I lists the percentage amount by which the flute tube length would change for a temperature change of 20 °C, the temperature difference between “room temperature” (20 °C [Centigrade] or 68 °F [Fahrenheit]) and the freezing point of water (0 °C or 32 °F). Values are listed for silver, gold and platinum flutes because the exact percentage of length change depends on the flute tube material.

A 20 °C temperature change will produce a 0.04% change in the length of a silver flute. But how much of a length change would be needed to produce a significant change in pitch? To understand this, I'll introduce a very useful equation,

Equation 1:

$$c = \lambda \cdot f$$

where c is the speed of sound (in the air inside the flute), the Greek letter



λ (lambda) is the wavelength of the sound wave produced by the flute, and f is the frequency of that sound wave. The wavelength (for notes in the flute's bottom octave) is approximately twice the length of the closed part of the flute, and the frequency—typically measured in cycles per second, or Hertz

(abbreviated Hz)—is what determines the perceived pitch.

[A reminder: increasing the frequency by 5.9% will raise the pitch by about a semitone, and doubling the frequency will increase the pitch by an octave.]

Equation 1 tells us that the product of the wavelength λ and the frequency f is equal to the speed of sound c (about 340 meters/second, more details later). Since c is independent of both f and λ (i.e., changes in λ or f won't change c), changing the length of the flute tube (and λ) will force a corresponding change in the frequency. A 1% decrease in the flute's length will thus produce about a 1% increase in frequency, enough to increase the

frequency of an A 440 by about 4.4 Hz. Looking at TABLE I, you can see that a 20 °C change in temperature produces a change in length *much* less than 1%, about enough to change A 440 by about 0.1 to 0.2 Hz.

So if thermal expansion effects won't account for why cold flutes are flat, what will? *The explanation lies in the dependence of the speed of sound on temperature.* Equation 2 gives an exact expression for the speed of sound in a gas (for example, the air inside your flute):

Equation 2:

$$c = 90.9 \cdot \sqrt{\frac{\gamma T_K}{M}} \text{ meters/second,}$$

where T_K is the temperature of the gas in Kelvins (a temperature scale explained in TABLE II), and M is the average mass of the individual gas particles (e.g., 4 for helium, 28 for nitrogen [N₂], and 32 for oxygen [O₂]). The Greek letter γ (gamma) is a constant whose value depends on the structure of the gas particles (i.e., whether they're single-atom gases like helium or two-atom gases like the O₂ or N₂ in air). The value of γ is nearly always between 1.2 and 1.67; it is 1.40 for dry air. If you plug in $T_K = 293$ K (room temperature), $M = 28.9$ (the average particle mass in dry air), and $\gamma = 1.40$, we get 342 meters/second for the sound speed c , in good agreement with the measured value.

What happens if the temperature of the air in the flute is lowered by 20 °C, from 293 K to 273 K? Equation 2 predicts that the speed of sound will decrease by a whopping 3.6%. Since the length of the

TABLE I. Percentage change in flute length
for a 20 °C change in temperature, calculated for three flute tube materials.

Material	Thermal expansion coefficient, α (°C)	% length change for a 20°C change in temperature
Silver	1.9×10^{-5}	0.04
Gold	1.42×10^{-5}	0.03
Platinum	0.9×10^{-5}	0.02

Readers interested in doing their own calculations should know that the tabulated percentage length change values are equal to the quantity $100 \cdot \alpha \cdot (T - T_0)$, where α is the material-dependent thermal expansion coefficient (in units of “per °C”), and $T - T_0$ is the temperature difference (in units of °C) between the final temperature T and an initial or reference temperature T_0 .

TABLE II. Three temperature scales:

a comparison of Fahrenheit (T_F), Centigrade (T_C), and Kelvin (T_K).

Temperature	Fahrenheit	Centigrade	Kelvin
Absolute zero	-459.7 °F	-273.15 °C	0 K
Water freezes	32 °F	0 °C	273.15 K
Room temperature	68 to 72 °F	20 to 22 °C	293 to 295 K
Water boils	212 °F	100 °C	373.15 K
T in Kelvins (T_K) =	$\frac{5}{9}(T_F - 32) + 273.15$	$T_C + 273.15$	T_K

This table compares three temperature scales (no relation to musical scales): Fahrenheit, Centigrade, and Kelvin. The Fahrenheit scale, in which water freezes at 32 °F and boils at 212 °F, is only popular in the US. Most of the world uses the Centigrade (or Celsius) scale, in which water freezes at 0 °C and boils at 100 °C, and the coldest temperature possible—“absolute zero”—is about -273 °C. Scientists often use a third temperature scale, called the Kelvin scale. Degrees Kelvin are the same size as degrees Centigrade, but because absolute zero in the Kelvin scale is set to be 0 Kelvins (or 0 K), Kelvin scale temperatures can never be negative. This comes in handy for Equation 2 because the temperature T_K is inside a square root sign.

flute doesn't change much, Equation 1 ($c = \lambda \cdot f$) tells us that f will also have to decrease by 3.6% (a pitch decrease of more than a quarter tone!). This is illustrated in Figure 1, which shows a graph of frequency (pitch) versus temperature for a flute tuned to A440 at 20 °C (68 °F).

In actuality, the pitch changes predicted from Equation 2 are likely to overestimate the actual pitch change. That is because the *air* inside your flute will have a temperature somewhere between the temperature of the cold flute tube (let's say 0 °C) and the temperature of the air you are blowing into it (which we can safely assume is close to body temperature—around 37 °C or 98.6 °F). Using the cold flute *tube* temperature to get the speed of sound will therefore give you the worst-case pitch change, because the air inside the flute won't be as cold as the flute tube.

Equation 2 tells us that the speed of sound in a gas depends on the gas composition (which sets M and γ) and the gas temperature, but not the gas pressure. So, to the extent that the air composition is the same (a very good approximation), the speed of sound will not vary with altitude; your warmed-up flute should have the same pitch whether played in Manhattan (0 to 265 feet above sea level) or

Aspen (7,900 feet above sea level).

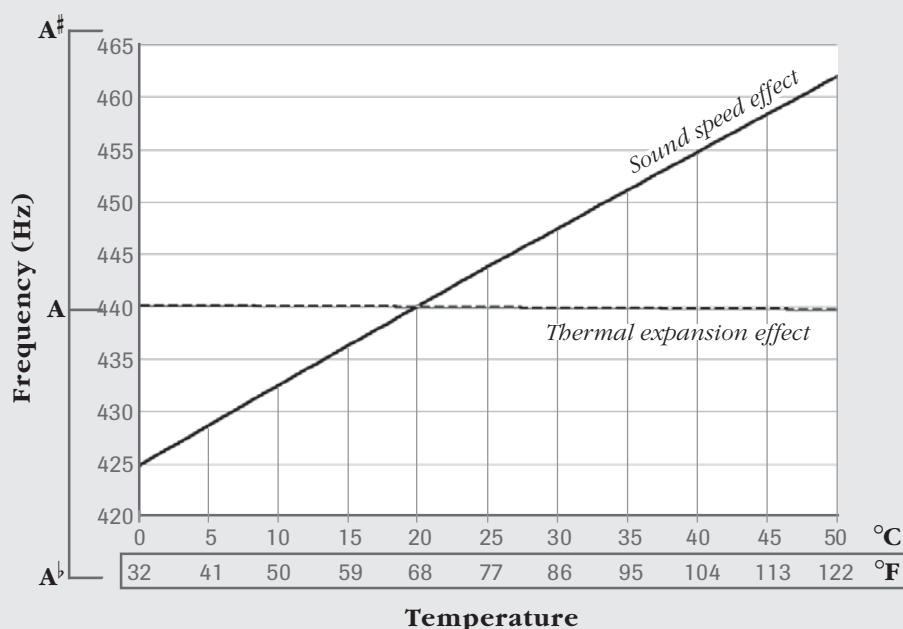
Equation 2 also predicts the “Donald Duck effect” one sees when people

who've been breathing helium talk in high squeaky voices. That's mostly due to the difference in the gas particle mass M , which is 4 for helium (instead of about 29 for air). This increases c by about a factor of 3, and increases the pitch by about one-and-a-half octaves. Moisture in the air can also change the speed of sound, but I'll let you figure out whether it gets faster or slower, given that water vapor (H_2O) has $M = 18$ and $\gamma = 1.33$. However, the effects of moisture tend to be fairly small because water vapor is only a small component of air; even on the muggiest of summer days (99 °F and 100% relative humidity), no more than 6.2% of the air molecules are H_2O .

So now you know why cold flutes play flat. It probably won't help you play in tune any better—equations are no substitute for careful listening—but at least you are more familiar with some of the fundamentals of musical acoustics. □

Katherine Saenger is a scientist at IBM Research and has a graduate degree in chemical physics.

Figure 1. Frequency (and pitch) versus temperature for a flute tuned to A440 at 20 °C (68 °F), “room temperature.”



The dotted line shows the effect of thermal expansion and contraction, and the solid line shows the effect of sound speed variation (computed with $\gamma = 1.40$ and $M = 28.9$). The combination of these two effects would give a curve nearly identical to the one shown by the solid line. Note that on an A440 scale, A# has a frequency of about 466 Hz, and A \flat has a frequency of about 415 Hz.

2000–2001 Concert Season

October 22, 2000 • Sunday 5:30 pm
PAIGE BROOK MEMORIAL TRIBUTE


November 12, 2000 • Sunday 5:30 pm
ROBERT LANGEVIN, flute

December 10, 2000 • Sunday 5:30 pm
INTO THE MILLENNIUM
The “Best of the New”—Highlights from recent repertoire

January 28, 2001 • Sunday 5:30 pm
FLUTE FORCE: Sheryl Henze, Gretchen Pusch, Rie Schmidt, and Wendy Stern, flutes

February 25, 2001 • Sunday 5:30 pm
RANSOM WILSON, flute

March 11, 2001 • Sunday 9:00 am–8:00 pm
Seventh Annual FLUTE FAIR
Remembering JEAN-PIERRE RAMPAL
Union Theological Seminary; 100 Claremont



April 22, 2001 • Sunday 5:30 pm
2001 NYFC COMPETITION WINNERS
Andrew Day, Julietta Curenton, and Nam-Kyoung Kim
CAMI Hall, 165 West 57th Street

May 20, 2001 • Sunday 5:00 pm
ENSEMBLE PROGRAM CONCERT
Bloomingdale House of Music



GEORGES BARRÈRE
FOUNDER

The New York Flute Club
NEWSLETTER

P.O. Box 20613 • New York, NY 10025-1515

Concerts are at CAMI Hall, 165 West 57th Street, unless otherwise noted. All programs are subject to change. Tickets \$10, only at the door; free to members. For more information, call (212)799-0448.

April 2001



From the Editor:

Greetings! April brings us a concert by our three Young Artist Competition winners: Andrew Day (1st prize), Julietta Curenton (2nd prize), and Nam-Kyoung Kim (3rd prize). Those of you who missed hearing these outstanding flutists at Flute Fair 2001 should be sure to attend their concert. Please join me in congratulating them.

I saw many of you at the Flute Fair; I learned a lot, and made some new friends. We have some wonderful photos of the event in this issue; check them out. Flute Fair attendees who played in the morning ensemble reading session should have met this month’s Member Profile subject, longtime NYFC member Gerardo Levy. Read his Profile and find out how much a new Haynes flute cost in the late 1950s!

In place of an in-depth interview with this month’s performers, we have two short articles. In the first, Nancy Toff introduces us to some of the newly acquired treasures in the NYFC archives, and tells us how we can get a first-hand look at them for ourselves. For the handful of you who prefer something more technical and less historical, we have my *Why do cold flutes play flat?* Readers hardy enough to slog through the two equations will also learn why flute pitch shouldn’t depend on altitude (Aspen players take note!).

Anyway, best regards,
Katherine Saenger
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