

Hutchins Consort Performs at Wolfeboro



Photo by Ken Moore, Metropolitan Museum

On the evening of September 20, 2003 the temperature inside the All Saints Episcopal Church in Wolfeboro, NH was an unseasonably hot ninety degrees, but the people waiting to hear the Hutchins Consort did not seem to mind. They queued up for tickets in a long line that stretched across the small lobby and out the door. In an effort to allow everyone to hear the concert, which had been sold out several weeks in advance, attendees were seated in the aisles, the choir loft, the lobby, and on the lawn outside the open windows. Many in the audience had traveled great distances to hear the Hutchins Consort, some from Connecticut, Colorado, Maine, South Dakota, New York, New Jersey, Oregon, and one from Belgium!

Members of the NVFA Board were in the audience, as were three members of the Hutchins Consort Board of Directors who had flown in from California, Sharon McNalley and Dr. and Mrs. Robert Burns. Carleen and Morton Hutchins were seated in the front row. Among those in attendance were eight violin-making students from Boston's North Bennett Street School who were seated on the stage behind the performers.

Other attendees included Dr. Andre Larson, director of the National Music Museum in Vermillion (SD) and Joseph Peknik, III, from the department of musical instruments at the Metropolitan Museum of Art in New York City. Supreme Court

Justice David Souter had planned to be present, but was prevented by last minute duties in Washington. Some old friends were in evidence as well, including Bill Berman, well-known as the first to play the alto violin on his shoulder.

The evening began with a talk by Dr. Paul R. Laird of the University of Kansas on the history of the octet and the new family of violins. His presentation to the packed house was informative and well-received. Between Laird's presentation and the start of the concert, Carleen Hutchins was introduced

"I've waited forty years to hear this concert."

Carleen M. Hutchins

to the crowd, which awarded her long and warm applause. Hutchins used the occasion to announce plans for a one-million-dollar fund raising drive she said would make Wolfeboro the center of activities for the violin octet throughout the world. Another round of applause ensued when she told the crowd, "I've waited forty years to hear this concert."

Now in its third season, the San Diego, California-based Hutchins Consort was making its first appearance in New

see Consort, p. 15

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The NVFA encourages the distribution and dissemination of information about the new violin family octet, performers, composers, and luthiers.

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Letter From the Editor

Welcome!

Before you is *Violin Octet*, only the second newsletter of the New Violin Family Association. It is the result of considerable effort to create an informative and entertaining chronicle of the New Violin Family and the luthiers, musicians, and composers the world over who are working to promote them.

About This Issue

Many of you know about the New Violin Family Octet from the Catgut Acoustical Society Journal, but a significant number of you are new to us and probably would like to know a little more about the octet instruments, their history, capabilities, and the people behind their development. Many of the articles in this issue are intended to provide an overview of past and present activities. We can't cover everything in one issue, so you can look forward to articles in coming issues that go into these and other areas in greater depth.

About the Editor

As your new editor I take my seat at the desk with some amazement. I am really not sure how I got myself in this position, but others who were at the board meeting told me I volunteered! I have been involved in violin making since the early 1970s when I studied with Karl Roy in New Hampshire and with Carleen Hutchins in the infamous (and famously underheated) garage at 112 Essex Avenue in Montclair, NJ.

I have more or less retired from violin work as a profession and consider the craft as an avocation now. I am having more fun and getting more work done than I ever did before. Much of my time is devoted to making instruments of the new family as well as conventional instruments, mostly violas and cellos. Some of that time will now be devoted to this publication. I only hope that my first newsletter turns out better than my first violin!

How Are We Doing?

Please let us know what you think. Your comments, and letters are most welcome, and even more so any information about individuals or groups making use of new family instruments. We are always looking for information about makers and the people who buy and play their instruments. If there are concerts being presented on octet instruments, keep us informed.

See you here next time!



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Supporting the New Violin Family Association, Inc.

Your contribution in any amount supports our work in promoting Octet performances internationally, commissioning composers for new repertoire, presenting lectures and demonstrations with musicians and luthiers, arranging outreach programs in the schools, and, most importantly, funding the construction of new instruments and bows. Your support and encouragement is the backbone of our organization. The NVFA is presently incorporated in the state of New Jersey as a 501(c)(3) not-for-profit organization, and is officially registered as a foreign corporation in the state of New Hampshire. Your contribution is tax-deductible to the extent allowed by law, and your generosity makes many things possible. Thank you from all of us for whatever contribution you care to make. We'll put it to good use!

We accept both VISA and MasterCard, as well as checks and US postal money orders. We are not able to accept overseas checks unless drawn on a US bank.

The violin octet represents the fruition of a concept that has been in the minds of creative musicians and instrument builders since the sixteenth century. Such a consort has never before been musically successful until the present collaboration between string players, composers, violin makers, musicologists and acousticians.

Acoustical Science Creates Eight New Violins

by Carleen M. Hutchins

The Violin Octet is a consort of instruments graduated in size, one at each half octave, from a seven-foot contrabass to a tiny treble violin tuned an octave above the standard violin. I began to design and make this octet of violins over 45 years ago in response to the challenges of modern music and the demanding acoustics of

accordance with the principals of modern acoustical science.

The story began in 1957 when Henry Brant, then composer in residence at Bennington College, came to me looking for a violin maker "crazy enough to try a new idea." He wanted a set of seven

to build all those instruments." I told him, "I'm going to try." When the first four or five were ready we found that even a fine concert violin was not powerful enough to play in balance with them. Schelleng and I designed an enlarged violin called a "mezzo." That brought the number of new violins to eight. It took me ten years to design and complete the first set.

About halfway through the project, musicologist Stephen Bonta brought me a book by Michael Praetorius, *Syntagma Musicum II* (Wolfenbuettel, 1619). Praetorius had described 7 *geigen* (violins) in much the same tunings that we were developing. Bonta was excited to discover that the baritone violin (large cello) and the big bass we had created for the octet had exactly the same dimensions and string lengths as the instruments Praetorius had pictured three centuries earlier. We began to feel that we were on the right track.

I could not possibly have created these instruments without knowledge of plate tuning, the two important air and wood modes of the violin as distinguished from those of the viola, cello and bass, or my experience in moving their frequencies around in various-size instruments. I started tuning plates in the 1950s based on the work of the early 19th-century scientists Felix Savart and Ernst Chladni.

In the early 1800s, in response to a demand for more sound from the violins to fill the increased size of concert halls, J. B. Vuillaume, the now-famous Paris violin maker, was taking apart a dozen or so Stradivari and Guarneri violins. In order to increase the sound he was installing heavier bass bars and longer necks to give greater tension to the strings. Vuillaume went to the scientist Felix Savart, who, with

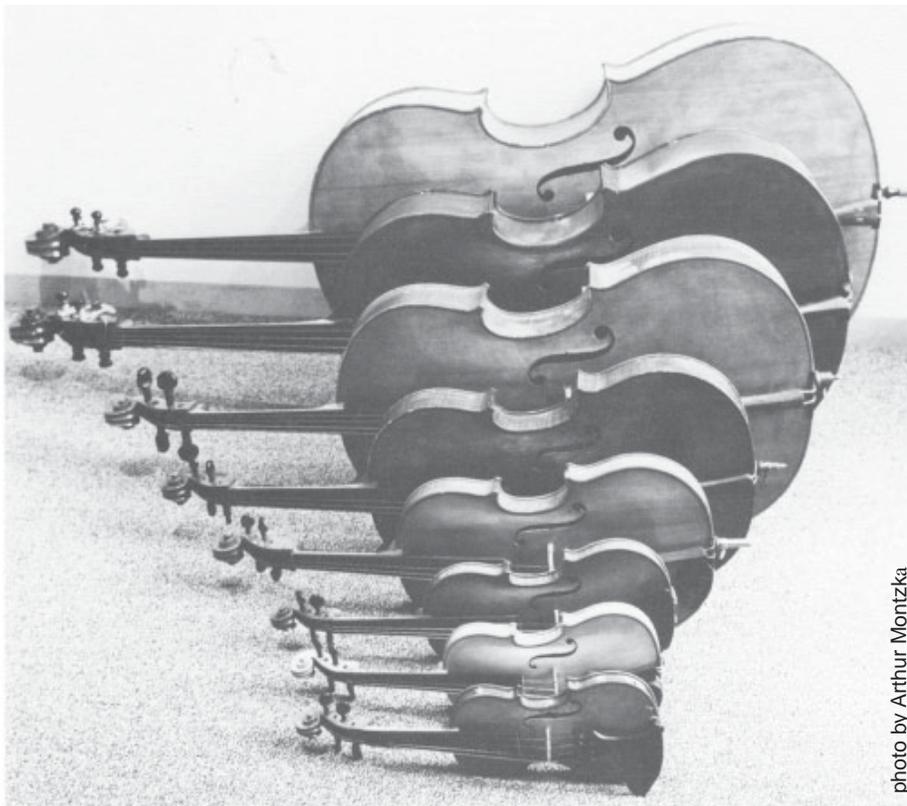


photo by Arthur Montzka

The New Family Octet, from front to rear, treble, soprano, mezzo, alto, tenor, baritone, small bass, contrabass--every one a violin!

today's large concert halls for which the violins of the past were never intended.

The octet violins are patterned on designs created by my colleagues and me and were constructed using the violin-making techniques of the past. Acoustically they are based on the wonderful Guarneri del Gesu that belonged to the great violin virtuoso, Jascha Heifetz, applied in

graduated "violins," one at each half-octave, that would incorporate the clarity, brilliance and power of the violin evenly on all four strings, not the tonal qualities of the viola and cello, beautiful though they are. After a half-hour discussion, I agreed.

My colleagues, F. A. Saunders and J. C. Schelleng, were skeptical. Saunders said to me, "Hutchie, you'll never be able

The new violin family octet is often thought of as a modern implementation of violin making, but in fact, violin-family instruments have been made in many sizes throughout their history.

What's Old is New Again

Praetorius' smallest "geige," which he labeled a "violin an octave higher," is a 3-stringed instrument with a rebec-like body and a single open soundhole instead of two f-holes (see picture on previous page). The instrument is about the size of a modern quarter-size violin, and Praetorius refers to it as a "pocket fiddle."

Strings of the time could not be tuned as high as the e''' of the modern four-string treble violin unless the string length was very short. There is an unusual record of a 3-string violin in England that had a short string length of about 150 mm. It is one of a set of three reproduced actual size in marquetry work on the top of the "Eglantine" table in Hardwick Hall near Chesterfield, Derbyshire. This violin-like instrument could have been tuned d" a" e''' but was likely tuned a tone lower.

The soprano violin has been known since before the time of Praetorius, who called it the "discant violin a fourth higher." Although it more resembled a modern violin in shape, it was also very nearly a quarter-size violin. A similar but slightly larger instrument in Bach's time was called the *violino piccolo*. It was tuned like the octet soprano, but it was used as a three-stringed violin, possibly due to the limitations of string technology. Bach was a great champion of this instrument and wrote parts

for it in his cantata *Wachet Auf* and in the *First Brandenburg Concerto*. Since the upper range of the piccolo violin without a high a" string is practically identical to the upper range of the conventional violin, the appearance and use of violins in more than one size indicates that different tone colors were as important as range to musicians of earlier centuries.

Standard violins, developed over a period of 300 years, are considered the most refined instruments of the string family and provide the first clear comparison with the larger mezzo violin. Many great violin makers of the past, including Amati, Maggini, and Stradivari built violins on "grand" patterns, so this idea is not new. Violins of different sizes were not tuned differently, again reinforcing the notion that different tonal qualities were considered desirable. The creators of the octet had the opposite task; they wished to make a larger instrument that had the *same* tonal characteristics of the smaller original.

Early violas also came in many sizes. All violas were tuned the same (c g d' a') but written in the clef of the voice they played, with the larger-bodied models usually taking the tenor part. Paintings of the time show these big violas played on the shoulder, a reasonable practice when parts did not exceed first position. Tenor violas were tiring to hold

nonetheless and the difficulties reaching the upper positions may have contributed to the instruments' decline with the advent of more demanding parts. The alto viola that has come down to us is too small for its tonal compass, and has acoustic weaknesses that have long been a source of complaint. The new octet alto is an advance since the playability problem has been solved by placing it on an endpin.

The tenor violin has been the neglected voice of the modern string family until now. Historically, it is difficult to discuss the tenor apart from the cello, as their sizes and tunings have overlapped at times. There is a

great difference between the tenor viola of the past and the modern tenor violin, both in size and tuning. In the 19th century the ideal of the tenor was that of an "octave violin," tuned an octave below the violin (G d a e') with all violin dimensions exactly doubled. Instruments with this tuning are encountered in Italy as far back as the early 17th century, sometimes with a fifth string tuned to low C like the cello.

The New Grove's Dictionary of Music and Musicians states that the loss of the tenor voice in the string family was a musical disaster. Still,

see *New Again* on p. 15

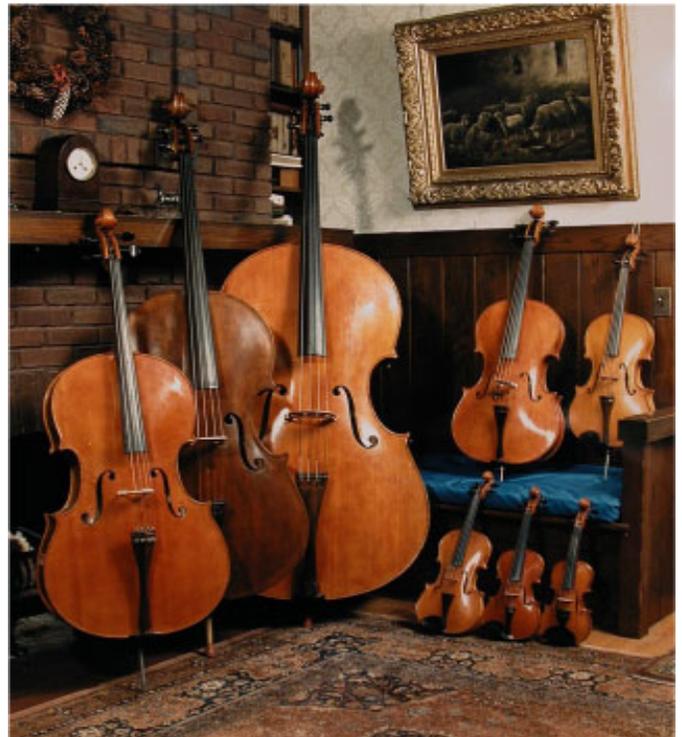


photo: John Castronovo

The violin octet. (From left); baritone, bass, contrabass; (on bench), tenor, alto; (on floor), mezzo, soprano, treble.

Musicians throughout the United States and in many foreign countries are playing octet instruments individually and with smaller groups. Here's a short list of who's where and what they play.

Listen to the Music

Treble

Treble violinist Sir Grigory Sedukh has concertized widely over the past three years. He writes that in the last 12 months he has given 11 concerts in Japan and seven in Amsterdam, London, and Genova, plus others in his home city of St. Petersburg. "Grisha," as he is known to his friends, says the first time he saw the treble violin was "a happy day" in his life.

Chien Tan, principal second violinist of the Portland (OR) Symphony, recently purchased a treble violin and began a musical collaboration with Bill Berman, who many will remember as the first to play the alto on his shoulder. Berman has retired from the viola and now plays mezzo violin. Tan and Berman hope to start a west-coast octet.



Sir Grigory Sedukh of St. Petersburg, Russia

Reuning-Hummel, a violinist turned violist, has taken to the mezzo. Reuning-Hummel says she loves the instrument's mezzo quality, a comment echoed by several professional singers who have heard it.

"The first time I saw a treble violin was a happy day."

Grigory Sedukh

Soprano, Mezzo

Rachel Evans, a Juilliard-trained violist, has begun to play the soprano violin in the newly formed Albert Consort in central New York. Her colleague in the group, Carrie



Carrie Reuning-Hummel with soprano violin.

Sai-Ly Heng Acosta has joined the Hutchins Consort as mezzo violinist. Octet instruments are a family affair for Sai-Ly; her husband, John Acosta, is the consort's alto violinist.

Alto

The newest alto player is Stephen Stalker of the Albert Consort. Stalker, who is professor of cello at Binghamton (NY) University, says the only drawback to the alto is that he can't play it as much as he'd like. Micha Haran of Israel has been playing the alto and baritone

since he became acquainted with the octet during the 20 years he lived in Montclair, NJ. Haran plays his alto in the viola section of the Israel Philharmonic Orchestra.

Tenor, Baritone

Ted Mook will play the tenor violin this spring with the Chamber Music Society of Lincoln Center at Alice Tully Hall (see Events, p. 5). Sera Smolen of Ithaca (NY) has recently joined the Albert Consort as tenor violinist.



Elisa Evett in rehearsal with small baritone violin

Cellist Akua Dickson has recorded several CDs using the baritone violin. Dickson, who lives in Montclair, NJ and is active in New York City says that she prefers the baritone because it blends so well with other instruments. Elisa Evett plays a second-generation baritone in the Albert Consort. She recently performed Paul Hindemith's *Kleine Sonata fur Cello und Klavier* on the baritone with pianist Diane Birr.

Basses

Bassist Dominic Duval, well-known among New York City jazz musicians, has made a number of CDs using the small bass. He reports that for performing and recording he prefers the small bass because of its superior acoustical and playing characteristics.

Diana Gannett, professor of music at the University of Michigan, continues to play her small bass, which is tuned as a regular double bass. This instrument was the first small bass we ever built. Joe McNalley of the Hutchins Consort remains the premiere performer on the contrabass. He continues to explore and expand the techniques of playing this instrument and doing things in the higher positions that others said could not be done.



Joe McNalley, Contrabass

Albert Consort Forms



Members of the Albert Consort performing at the First Unitarian Church, Ithaca, NY. From l. to r., Rachel Evans, soprano violin; Carrie-Reuning Hummel, mezzo; Stephen Stalker, alto; Sera Jane Smolen, tenor; Elisa Evett, baritone.

A second performing ensemble of New Violin Family instruments has been organized in the upstate New York city of Ithaca by luthier Robert J. (Bob) Spear, a former student of Carleen Hutchins. Presently constituted as a quintet, the group presented its first performance on November 30, 2003 at the Ithaca First Unitarian Church. Selections included excerpts from Bach's *Art of the Fugue*, pieces for string quartet by Mendelssohn arranged for tenor quartet, and Vaughan Williams' *Phantasy Quintet*.

A standing-room-only turnout on a brisk November afternoon indicates that a high level of interest in the new violin family exists in Ithaca, a city famous for its interest in music since the founding in 1895 of the Ithaca Conservatory of Music (now the Ithaca College School of Music).

The consort, named for Spear's late father-in-law, Albert Mitchell Zalkind, is presently an all-volunteer organization that presents several concerts each

season. The players assist in promoting and publicizing the concerts, and enthusiasm for the consort is high. One player commutes almost three hours to attend rehearsals. Another member of the group even scheduled surgery to avoid conflicts with rehearsal dates!

Spear hopes to complete a small bass in time for the consort's next concert scheduled for May of 2004. Plans for the future include performances by guest artists on instruments of the octet not presently included in the Albert Consort and a recording session.

The instruments used are second-generation models of the new violin family Spear designed and built to further the work begun by Carleen Hutchins in the 1960s. A paper on the results of Spear's research on this subset of the octet was published in the November issue of the *Catgut Acoustical Society Journal*. More on the Albert Consort will appear in the next newsletter.

Events Calendar

February 27, 2004

Hutchins Consort, Neurosciences Institute, 10604 John Jay Hopkins Drive, La Jolla, CA. *Program with Alan Vogel, oboe*: Brade, Britten, Liszt, Kenton. 8:00 p.m. \$\$

April 9, 2004

Hutchins Consort, Neurosciences Institute, 10604 John Jay Hopkins Drive, La Jolla, CA. *Program*: Charlton, Walczyk, Mozart. 8:00 p.m. \$\$

April 13, 2004

Albert Consort, Steadman Recital Hall, Mansfield State College, Mansfield, PA. *Program*: Vaughan Williams, Mendelssohn, others. 1:00 p.m. Free

May 7, 2004

Hutchins Consort, Irvine Barclay Theater, 4242 Campus Drive, Irvine, CA. *Program with Charles Curtis, cello*: Janacek, Rackley, Mozart, Piazzolla. 8:00 p.m. \$\$

Chamber Music Society of Lincoln Center, Alice Tully Hall, corner 65th and Broadway, New York, NY, *Program includes Ted Mook, Tenor Violin, in Harry Partch's "17 Lyrics of Li Po"*: also, Yi, Ravel, Takemitsu 8:00 p.m. \$\$

May 8, 2004

Hutchins Consort, Neurosciences Institute, 10604 John Jay Hopkins Drive, La Jolla, CA. *Program with Charles Curtis, cello*: Janacek, Rackley, Mozart, Piazzolla 8:00 p.m. \$\$

May 22, 2004

Albert Consort, Trinity Memorial Church, Binghamton, NY. *Program with Carol McAmis, soprano voice*: Chausson, Haendel, Barber, Haydn. 8:00 p.m. Free

May 23, 2004

Albert Consort, First Unitarian Church, corner Buffalo and Aurora Streets, Ithaca, NY. *Program with Carol McAmis, soprano voice*: Chausson, Haendel, Barber, Haydn. 7:00 p.m. Free

Please Note: Concert times and places are subject to change. For updated events information visit our web site at <http://www.newviolinfamily.org/events>

Hutchins' free-plate tuning theories gave luthiers the knowledge to make better instruments, and Carruth and Knatt gave them the essential tool. Some of the old Garage Gang recall "The Un1t," the original Chladni-pattern generator that was built with sweepings from an office floor.

Generations

Carleen Hutchins' theories of free-plate tuning required a small, self-contained sine wave generator. Luthiers Tom Knatt and Al Carruth had been discussing this need in the early 1980s at a folk music festival where they had a booth. A Swedish gentleman stopped by with an instrument called a "nycelharpa," which Carruth describes as "a sort of semiautomatic fiddle with drone strings." It was the man's first instrument, and he wanted some help in making the next one better. Knatt thought he could help, but not without test equipment.

Carleen liked the unit so much she wouldn't give it back . . .

"What do you need?" the man asked. Knatt replied, "A signal generator, amplifier, and frequency counter." The visitor produced his business card, which identified him as Matthew Fichtenbaum, chief scientist of the General Radio Corporation. "Now," Fichtenbaum said, "exactly what do you need?"

General Radio was relocating and employees were emptying their desks, so Fichtenbaum put the first unit together with sweepings from the office floor. Carruth and Knatt were interested in getting units for themselves, but made the mistake of showing the prototype to Hutchins in 1981. Carruth remembers, "Carleen liked it so much she wouldn't give it back unless we got one for her."

At this point, everything fell into place. Fichtenbaum refined the design so that most components could be obtained

from Radio Shack, gave the plans to Carruth and Knatt, and offered help troubleshooting. Carruth's father, with 30 years in the electronics industry, was looking for a retirement business. Carruth's mother, an experienced electronics assembler, offered to put the parts together, complete with a helpful frequency chart decal applied to the front panel.

Luthiers liked the device, although many found the \$350 cost of the hand-wired units prohibitive. The Carruth group built and sold 21 generators over the next several years, but the project faltered when Carruth's father died in 1984. Carruth and Knatt were more interested in building instruments than assembling electronics. The two wired a few additional units, but their goal became finding someone to take over the business.

Don Bradley, a graduate electrical engineer, had been interested in the application of electronics to guitar making. He has always been enamored by the sounds of stringed instruments and was first inspired

to make a frequency generator when he attended a plate-tuning demonstration Carleen Hutchins gave at the 1979 Guild of American Luthiers convention in Boston. The concept fascinated Bradley, who gathered parts for the project but never assembled them. Bradley met Carruth at the 1992 GAL convention at the National Music Museum in South Dakota and agreed to acquire Carruth's remaining parts inventory and schematics. Bradley says he got



The latest unit from Bradley has instantaneous readout and can store eight frequencies for quick switching between modes.



An example of Carruth and Knatt's sine-wave generator featuring a 50-watt rms amplifier (later derated to 30 watts). The sweep range could be altered only by changing some electronic components internally.

a deal from Carruth; Carruth says he dumped all the leftover parts on Bradley. Only good can come out of such exchanges.

Bradley designed a printed circuit board to replace the original hand-wired breadboards. He called his unit the SigGen 2 and even managed to keep the price about the same. "I built the SigGen2 units based on Alan's work," Bradley says, "I've sold about 84 units over the last ten years, mostly to violin makers. I have expended all the original circuit boards for the older unit and I am currently selling only the new prototype."

Bradley has made the new SigGen3 small and transportable and given it improvements over previous models. The sine wave is now created by a direct digital synthesizer chip instead of the combination sine and triangle wave output of the previous unit, and the amplifier is slightly more powerful at 27 watts rms instead of 20 watts. SigGen3 also has greater range, sweeping continuously from 10 Hz to 20,000 Hz (the low range a must for those of us tuning those big basses!) and a nice LCD signal display.

Bradley plans to increase the power of the units to 50 watts so luthiers can drive the plates of cellos and basses without the need for additional equipment. He says now that the design and production of the SigGen3 have come to fruition he plans to have more free time to complete several instruments in progress.

New octet sets and individual instruments of the new family are under construction all over the world.
Many individual instruments are also being built.

New Instruments for New Times

Octets on the Road

There was a point when most of the existing octet sets could be found only in museums and universities, but that situation is changing as a new wave of violin makers contributes to the advancement of the new violin family.

It's not that early octets were shut away in an ivory tower or a storage room and forgotten. During the last thirty years over 200 lectures and concerts were presented to large audiences in London, Edinburgh, Stockholm, St. Petersburg, Berlin, Tokyo, Taiwan, the Metropolitan Museum of Art, the National Music Museum, and other places in the US and Canada.

An octet spent three years in London at the Royal College of Music where their new sounds were explored and new music was written for them. Another full set was loaned to the Conservatory of Music in St.

Petersburg, Russia. Eight distinguished professionals and professors performed many concerts to standing ovations and enthusiastic reviews with several fine recordings plus many new compositions resulting (CD CAS 9801. See last page for more information).

Two octets are now in New York City. One is kept privately for loan to musicians, and the other is at the Metropolitan Museum of Art's long-running and popular exhibit. In 2002, the Hutchins Consort played their personal octet set in a Mother's Day Concert given at the Met's Grace Rainey Rogers Auditorium before an audience of more than 500 people.

Octets on the Bench

Seven complete octets are currently in existence; an eighth set lacks only a contrabass. All of them were made by Carleen Hutchins and



A soprano, mezzo, alto, tenor, and baritone in the white on Robert Spear's workbench.

her associates between the early 1960s and the mid-1980s. During the 15 years that followed, makers began building individual new violin family instruments, but there was a lull in creating any more full sets.

At present, work is underway on three octets in three different countries. Joris Wouters in Westerlo, Belgium is building the first Belgian octet. He has completed two instruments and is working on two more, including a baritone. In Genoa, Italy, Pio Montanari has completed a treble, soprano, mezzo and alto and is not far behind in his quest to build the first Italian octet.

In central New York, a third octet is being constructed by Robert J. Spear. At present Spear has completed five of the set and is working on a small bass (for more about this octet,

see p. 5). Spear has slowed work on the bass to build two altos for private individuals.

Other makers continue to produce individual octet instruments. Alan Carruth recently completed a tenor for a private individual, and two of his students have built altos. Tom Knatt in Concord, New Hampshire has made altos, and two are currently under construction by Steve McCann in Grand Rapids. Carolyn W. see "new octets," p. 10



Joris Wouters



An early photo of Carleen Hutchins varnishing a standard viola. A small bass in the background awaits the brush.

Contemporary Octet Composers: a brief review

In 1957, when Henry Brant asked Carleen Hutchins for a consort of seven new instruments to match the sound of the violin, he probably had no idea of the amazing series of events his request would set in motion. Brant was so excited about the idea that the first piece he composed for the group, "Consort for True Violins," was finished two years before Hutchins assembled her first full set. In 1965, Brant arranged a concert for the new octet in New York City at the 92nd Street YM-YWHA as part of Max Polikoff's program "Music in Our Time."

Other composers became interested enough in the new octet to write pieces for the group, despite the possibility that they would never hear their compositions played on these instruments more than once. Gordon Jacob's "Aphorisms," written in the late 1970s for a full octet then

at the Royal Academy of Music in England, is happy proof otherwise. It is often played in concert by the Hutchins Consort and has been well received by audiences everywhere.

German-born Frank Lewin is also among the early composers to write and arrange for the octet. Lewin's adaptation and arrangement of the *Sanctus* and the *Hosanna and Benedictus* from Palestrina's *L'Homme Arme* was one of the earliest pieces to appear in the NVFA catalog. A compact disc of his works is being prepared for release by the NVFA and should be available on the NVFA web site in mid-February 2004.

Award-winning composer Constance Cooper of New York City often writes for combinations of instruments either consisting of or including many instruments of the new family. *Coming from Us* (Cadence-Quixotic Recordings), released in the fall of 2003, is comprised of selections from her book of microtonal pieces for string ensembles in groupings from duos to full octets. In November 2002, Cooper appeared on WNYC-FM's *Soundcheck* with John Schaefer and demonstrated the treble violin with a recorded excerpt of her *Le Rossignol-en-amour* with John Lad, treble violin. Cooper writes that she was

"able to draw 'oohs' and 'aahs' from others present at the beauty of the instrument in its uniquely high *tessitura*."

There is no contemporary composer more active in writing and arranging for the new family than our own Interim President, Robert J. Miller. Miller has produced more than 100 works for various combinations of octet

instruments, and many of them are available on the NVFA website.

Other composers currently writing for the octet are Laurie Conrad of Ithaca, NY and Clifford Young of Trenton, NJ. Conrad's piece for baritone quintet, *Elegie*, received its world premiere performance by the Albert Consort in November 2003.

"new octets," cont'd. from p. 9

Field in Tennessee constructs mezzos, altos, and tenors, and plays the alto in a quintet and an orchestra.

Anne Cole of Albuquerque, NM has made an alto, a tenor, and a baritone and performs on all three. Duane Voskuil in Bismark, ND, has made three mezzos, including one set up with five strings. Voskuil has also constructed a small bass that is used in a city orchestra in place of a 3/4-size bass viol.

Lloyd Craighill of Amherst, MA writes that he is currently working on his fifth tenor. His third and fourth tenors were commissioned by professional cellists. Craighill played his second tenor with them in public performance and notes that the "three tenors" made a good impression.

Retired physicist Fred Lipsett knows of six students who play alto. Fred plays an alto made in 1998 by Peter Mach of Aylmer, Quebec, and reports that Peter Chandler of Ottawa makes altos.

Octets of the Future

During the long association of the new violin family and the

Catgut Acoustical Society, many requests were received for information about constructing octet instruments. This interest did not diminish after the NVFA was formed and split off from the CAS in 2000.

Since its inception, NVFA has received over 360 requests for information about the octet. Nineteen maker's kits and six sets of technical drawings have been sold. Individual plans have been purchased for one soprano, four mezzos, two tenors, one baritone, and 11 altos.

Sales of music for the octet and smaller combinations of octet instruments have been started on the NVFA web site. The SuperSensitive String Company, the only commercial firm in the world producing strings for the octet, has recently reported an increase in sales and is upgrading its new family line of strings.

Portions of this story originally appeared in the August 2003 issue of *NewMusicBox* ((c) 2003 NewMusicBox), the web magazine from the American Music Center (www.newmusicbox.org) and are used with permission.



Frank Lewin

Annual Meeting of NVFA Officers and Board

The NVFA Officers and Board of Trustees met on Sunday, September 26, 2003 at 11:00 am for their annual meeting. The gathering was at the Wolfeboro, NH home of Executive Director Carleen M. Hutchins. Trustees who could not be present participated by means of a conference call.

Hutchins chaired the meeting in the absence of President Alan Alexander, who had expressed his desire to step down for personal reasons. Long-time



Carleen M. Hutchins chairing the board meeting on Sept. 26.

trustee Dennis Flanagan also asked to be relieved of his duties citing his advanced age and inability to travel. The board accepted both resignations. Robert J. Miller was elected Interim President to serve the remainder of Alexander's term, after which the minutes of the previous meeting were read and accepted and the financial report given.

There are presently 16 officers and trustees, but plans are to bring that number to the 21 members the bylaws allow. A nominating committee will be formed by Margaret Sachter and Quincy Whitney. Hutchins stressed the need to include individuals who have experience in fund-raising campaigns but to reduce the burdens of board members who are working in important related areas such as the construction of octet instruments or the presentation of public performances.

The board also voted to institute staggered terms so that only one-third of their number is elected in any given year. New members elected to the board include Daniel Heifetz, renowned violinist and educator, and Scott Ponicsan, who will facilitate association dealings in New Jersey where the NVFA is still officially incorporated (NVFA is also registered as a "foreign" corporation in the state of New Hampshire).

A planning committee comprised of Bob Miller, Joe McNalley, and Scott Ponicsan was formed to advance a five-year business plan for the NVFA. A panel to advise the Board is also being considered. Included among the proposed members are Robert J. Spear and Alan Carruth, both working luthiers. The need for a newsletter was also brought up, and the consensus of opinion was that it should be available in both print and electronic form on the Association's web site.

Considerable discussion was devoted to priorities for the Association. While the lack of octet instruments is our main concern, Joe McNalley stressed that all public performances of the octet instruments must be of professional caliber. He also underscored the need for better strings and the construction of bows specifically sized for the new instruments. After further discussions, the meeting adjourned at 2:00 p.m.

On the recommendation of Bob Miller the board later approved the production of a CD featuring the music of composer Frank Lewin written for the new violin family octet. Much of the recording work has already been done and the effort and expense would have been wasted had no action been taken. Lewin has graciously waived his commissions, and Miller commenced production work in November 2003. The tentative release date of the new CD is February 2004.

Attention Luthiers!

Luthiers who want to learn more about crafting octet instruments can obtain a kit that includes a short history of the Violin Octet, a blueprint price list, wood dimensions for each size, music for the New Violin Family, a guide for copying parts, relative scaling factors for conventional and new family instruments, Octet plate tuning frequencies, and

articles related to plate tuning.

The Luthier's Kit is available for \$50 plus postage.

New Violin Family Association
42 Taylor Drive
Wolfeboro, NH 03894

If your ancient Chladni-pattern generator (see story on previous page) has given up, don't despair. You may be able to have it repaired. Don Bradley still has many parts for all the previous units and will repair them on an individual basis. Contact Don at Bradley Engineering, PO Box 141, Forestville, CA 95463 or email <sonomabd@sonic.net>.

Know Anyone Making or Playing Octet Instruments?

Please send notice to R. J. Spear, Editor. We'll take it from there.

email <rjspear@zoom-dsl.com> or mail to PO Box 6562, Ithaca, NY 14851

Carleen Hutchins Donates Archives to the National Music Museum

Many of us dread the thought of moving our household and wonder how we'd deal with all that stuff we've accumulated over the years. Our problems would seem small next to those of Carleen Hutchins. Faced with leaving the house in which she had lived for almost 90 years, simply packing personal items and furniture would have been an exhausting task

But Hutchins also had accumulated half a century's worth of work in violin research and construction. There were literally hundreds of boxes of records, files, notebooks, and the like, plus tools and dozens of unfinished instruments. Even with the records of the Catgut Acoustical Society moved to Stanford University in California, the material remaining at 112 Essex Avenue constituted an irreplaceable history of acoustical research.

The logical place for such important archives seemed to be the Shrine to Music in Vermillion, on the campus of the University of South Dakota. The Shrine, now renamed the National Music Museum (NMM), had gained a reputation as America's premier repository of musical instruments and become a major center for musical research. Hutchins' relationship with the museum dates back to June, 1992



The National Music Museum, Vermillion, South Dakota

when she brought a full octet to Vermillion for a combined meeting of the Catgut Acoustical Society (CAS) and the Guild of American Luthiers (GAL). After discussion, she left the octet with the museum.

The set represented a group of instruments constructed as early as 1668 and as late as 1985 by Hutchins and her associates and students including Carolyn W. Field, Christine Livingstone, Louis Dunham, Burritt Miller, Raphael Bernstein, Donald and Laura Blatter, and H. K. Jackson. Almost all the instruments were either made or tuned in Montclair, NJ. They are presently under the supervision of Dr. Margaret Downie Banks, Curator of Instruments at the museum.

According to museum director Dr. Andre Larson, a couple of the instruments have been exhibited on a

regular basis since then, and the full octet has been played on at least two occasions.

The decision to send more archival materials along with three experimental instruments was made on November 10, 2001 when Larson visited Hutchins at her home in Montclair, NJ. Larson recalls that he celebrated his birthday in Hutchins' kitchen, and

notes that Hutchins "kindly made soup and sandwiches for us at lunch time."

Throughout much of 2002 a seemingly endless number of boxes containing archival material arrived at the museum. Larson's wife, Kay Marcum, who is a volunteer at the museum, began to organize the materials in October of 2002. The task of creating an alphabetically and chronologically integrated database is one that will likely take months, if not years. Marcum must handle every item individually and become familiar with each one. When she is done, others will be able to access the database with ease. It is, as Larson writes, "a daunting task."

The photos in this article are courtesy of Dr. Andre Larson and the National Music Museum and are used with permission.



Carleen Hutchins in 1992 at the combined meeting of the Catgut Acoustical Society and the Guild of American Luthiers, sitting amidst the octet she donated to the National Music Museum.

Photo: Valerie Hoepfner, Yankton Press and Dakotan

Three important experimental instruments by Carleen Hutchins are now held by the National Music Museum. They will be on display beginning in May, 2004.

Three Important Experimental Instruments

The Flat-Top Viola.



Photo by Bill Willroth, Sr.

Carleen Hutchins built this experimental viola (SUS 13, NMM 10,181) in 1953 for a series of experiments by Frederick A. Saunders (1875 -1963). The back and top were made flat so the soundpost could be moved anywhere without falling. The bass bar was on the outside, and replaceable ribs allowed changes in height. Saunders tried many different bridge materials (paduc wood became his favorite), and he even added wood patches to the plates to affect their stiffness. He varied the shape and location of the ff-holes, cut purfling grooves wherever he wanted, and reshaped and relocated the bass bar.

Saunders widened and lengthened the ff-holes until they looked like "spiral nebulae,"

testing the viola after each cut. The two researchers ultimately concluded that the instrument sounded best when the soundholes were of normal area. Normal bass bar placement was also best, although it didn't matter whether the bar was outside or inside the body.

Hutchins made 35 different bridges from 7 different kinds of wood in 5 different thicknesses. She ultimately made 3 flat-top violas but said many years later that this one was probably the most important. "We did at least 100 experiments on it, maybe more, and learned an awful lot that has proved quite valid ever since," she notes. "It is a good viola except for the difference in the overtone structure. It represents the elements that are necessary for good sound, none of the fancy stuff that everybody thinks is so important."

The Black-Top Violin.



Photo by Bill Willroth, Sr.

In the early 1970s, a grant from the National Science Foundation (NSF) enabled Prof. Daniel W. Haines and his student, Nagyoung Chang, at the University of South Carolina to develop an alternate material for the spruce tops of violins and guitars. Haines and Chang created a laminated composite consisting of two layers of graphite-epoxy with a layer of fiberboard in between.

Morton Hutchins got Hercules Inc. to form the plate over a solid metal mold of a violin top in a 350 degree (F.) oven. The resulting plate produced a clear tap-tone, and Carleen Hutchins cut ff-holes. Carbon fibers became so deeply embedded in her fingers it took weeks before they worked themselves out. Morton Hutchins spent months developing an epoxy glue for the bass bar.

Acoustically the material proved to be a success. Modal analysis showed that the graphite-epoxy sandwich had characteristics very similar to that of traditional violin tops. Problems with delamination and the difficulties of handling the composite material delayed the work, during which time a competing firm was first to secure a patent on a similar product. A few violin makers continue to experiment with the material, but it has not been generally accepted. However, commercial guitar making firms have adapted it to production methods, and graphite-epoxy guitar tops are common in the market.

The Swiss-Cheese Violin.



Photo by Bill Willroth, Sr.

After consulting with acousticians Edgar A. G. Shaw and Arthur H. Benade, 65 holes 5 mm in diameter were drilled into the ribs of this Strad-model violin. The holes were plugged with corks to test the interior cavity air resonances. Experiments spanned 18 years.

The violin was brought to Paris in 1983 where it caused a sensation at the 11th Annual Conference on Acoustics. The French called the violin "Le Gruyère." Hutchins persuaded the German physicist Jürgen Meyer, a fine violinist, to play the violin as she removed the corks one by one. Meyer's skepticism turned into amazement as the sound changed.

The relationship of the body cavity resonances to the openings of the ff-holes is so sensitive that removing just one or two corks makes the violin sound thin and scratchy. When all the holes are plugged, which loads the ribs with the mass of 65 corks, the violin still has a good sound.

Thanks to the National Music Museum for permission to use these photos and for supplemental information presented here.

Catgut Acoustical Society, Violin Society of America Agree to Merge



Original CAS Logo
drawn by C. M.
Hutchins

The Catgut Acoustical Society will not exist as an independent entity by the end of 2003. The organization founded by Carleen Hutchins, F. A. Saunders, John Schelleng, and Robert Fryxell in 1963

will merge with the Violin Society of America after months of discussion between the two groups. In a mid-November 2003 letter, CAS president Jay VandeKopple cited "compelling reasons" for the merger, saying the dichotomy between the scientifically oriented CAS and the traditionally oriented VSA had become "increasingly irrelevant."

The union gives the combined groups an enrollment of more than 1800. The CAS will become a VSA forum with its own board and expects to continue publication of its biannual journal as the *VSA Papers*. *CAS Journal* editor Jeff Loen will remain as editor of the *Papers* issues while longtime VSA member Albert Mell will continue as editor of the *Proceedings* issues.

CAS Board member Tom King notes that the merger decision had been difficult given the pressures of declining enrollment, diminishing revenues, and a fundamental shift in the interests of the society's members. King, a past editor of the *CAS Journal*, and current editor Loen both said that the number of physicists and other researchers working and writing in violin acoustics had declined precipitously in recent years, and that a lack of submissions had made it difficult to maintain the *Journal* as a peer-reviewed publication.

King also said there was a feeling that the CAS largely had done what it set out to

do and that it was a good time to bring the society into the cultural mainstream. "The good news, I think, is that the traditional violin world is now far more receptive to research than ever before," King said. "In that sense the CAS [has succeeded]. My own view is that it is time to consolidate that victory by working closely with VSA."

The merger is bittersweet news for many CAS members who supported the society's work over the years. The move is seen as the beginning of the end for an organization unique for its time and in its mission and philosophy. Some are skeptical that the CAS can long retain a separate identity after the merger and fear that within a few years the group will lose its focus and become no more than a club.

A Glance Backward.

The noted Harvard acoustician Frederick A. Saunders pioneered violin research in America during the mid-1900s. Although the Catgut Acoustical Society did not find its name until later, the group in essence was the outgrowth of the researchers associated with him. The CAS initially was small and egalitarian, and its members did their work for the love of it. Most early research was supported by voluntary contributions because CAS at first did not assess membership dues. Clerical help often volunteered their services and remained with the society for years. The society's emphasis was on the relaxed and



F. A. Saunders with treble violin.

noncommercial exchange of information, a rare philosophy for the time. Several physicists associated with the CAS in its early days remarked that the spirit of the group reminded them of the informal atmosphere of cooperation that flourished among 18th-century scientists.

Scientific and practical work on stringed instruments in general and the new violin family in particular were ongoing and inseparable even before the CAS officially organized. Over a period of more than thirty years the first octets were built and the revolutionary techniques of applying theoretical knowledge to practical work were first developed. This research occurred along side an astonishing array of investigation into every conceivable area of violin and related acoustics. The information gained was applicable to all violin work, not just the new family.

Despite the recurring debates over whether the CAS should be a scientific or a craft organization, the founding leaders and most since tried to take the middle road. The individuals proposed for membership in 1965, for example, included a chemist, an academic, a businessman, a composer, two musicians, four physicists and four violin makers, reflecting the wide appeal of the society and the wonderful breadth of its early membership. At its peak, CAS was a highly respected international organization with over 800 members. In 1983 the biannual *CAS Newsletter* was transformed into a peer-reviewed scientific journal in which many groundbreaking papers were first published.

Violin octet work continues under the New Violin Family Association, which split off from the CAS at the end of 1999. The octet instruments will move from the theoretical world into the concert hall, and the Catgut Acoustical Society's spirit will live on wherever instruments of the new violin family are played.

Lighter Moments



Rachel Evans, soprano violinist of the Albert Consort, discovers how to play the vertical viola on her shoulder!

Consort, from p. 1

Hampshire. The ensemble rarely comes east, but that may change judging from the number of people who turned out for the concert and the enthusiastic response they gave to the suggestion of another visit by the Hutchins Consort next year.

The consort played a program consisting of Sweelinck's *Hodie*, *Christus Natus Est*, Bartok's *Rumanian Folk Dances*, Greig's *Holberg Suite*, and Gordon Jacob's *Aphorisms*, originally written for the new violin family octet. Also performed was Gershwin's *Summertime*, and the group's signature selection to close the first half, Kenton's *Intermission Riff*.

The Hutchins Consort, founded in 1999 by its contrabassist, Joe McNalley, is the only one that owns a complete set of the octet instruments and is the only professional octet in the world. The ensemble plays 12 to 14 concerts annually, mostly in La Jolla and Irvine, CA and has also traveled and performed abroad.

Hutchins Interview

NewMusicBox Magazine, the American Music Center's Internet magazine, published an interview with Carleen M. Hutchins in its August, 2003, edition (Issue 52, Vol. 5, No. 4). Magazine editor Frank J. Otari posed the question "What prompted you to build instruments and what role should instrument builders have in shaping the future of music?"

Carleen's answer and those of other prominent musical figures can be read on the magazine's web site at <http://www.newmusicbox.org>. When the page appears, type "Hutchins" (without quotes) in the search field entitled "pages" and hit the enter key. Readers can also search the "archives" section manually.

NewMusicBox magazine is a highly-regarded example of a publication without paper. The 3-year-old magazine was the first recipient of the ASCAP-Deems Taylor Award for an American music magazine.

New Again, from p. 4

composers from Bach to Taneyev have written for the tenor, and makers from the seventeenth century into the present time have built them. The octet tenor is the first successful attempt to apply modern physics and acoustics to the construction of the tenor.

The baritone violin harkens back to the Venetian *bassetti* and other large cellos of the 17th century. These large instruments were then considered the basses of the violin family. Predecessor instruments in similar tunings are found as early as the mid- 16th century. Tuned in fifths like a cello, their lowest string was often BBb, a step lower.

Improvement in strings, and the introduction of metal-wound C strings in the mid-17th century, produced acceptable bass from shorter string lengths, which in turn allowed the cello to play more technically difficult parts. Makers responded to the need for greater playability by reducing the size of the cello until it was nearly the size of a tenor.

A significant size reduction was not without acoustic penalty, but a loss of some depth on the bottom string and some power on the third string was apparently acceptable in exchange for greater brilliance and projection on the top two strings. The octet baritone, with its larger dimensions,

once again provides an instrument with equal power on all four strings, but retains a standard string length for ease and facility of playing.

The large bass shown by Praetorius, with its violin-like corners and ff-holes, comes very close in appearance to the octet contrabass, but the instrument seems to have mostly disappeared. In the intervening years, the duties of the contrabass have been assumed by the contrabass viol, which is not even a violin at all. The old viol often has been adapted to look more like a violin, but with its sloping shoulders and flat, heavily-braced back, acoustically it is still a different instrument.

Contrabasses of the past came in an assortment of sizes and tunings, so it should not be surprising that there are two basses in the modern octet. Both the small bass and the big contrabass are constructed on the same acoustical principals as all the other octet instruments, and both new basses produce sounds never heard before in their ranges.

The tuning of the small bass (AA D G c) suits it for solo work. The contrabass is tuned the same as a double bass viol (EE AA D G), but its violin-shaped shoulders clearly indicate it is a modern violin, while its impressive size allows low notes to speak with great resonance.

The New Violin Family Association, Inc.
42 Taylor Drive
Wolfeboro, NH 03894



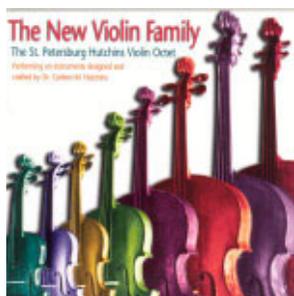
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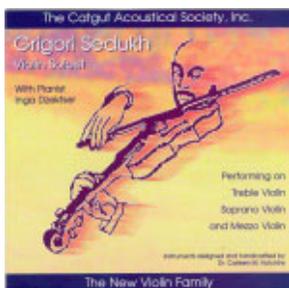
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Instruments of the Violin Octet on Compact Discs



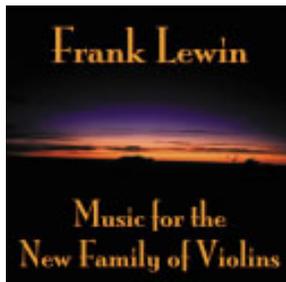
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COMING SOON!!

An historic CD of music written for the violin octet by Frank Lewin and played by New York area musicians. Available mid-February, 2004. Check our website for further information.

The incomparable sound of the Hutchins Consort is now available! Can't wait? Order this CD online at <www.hutchinsconsort.com>. Proceeds benefit the Hutchins Consort, a non-profit organization.



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