It's been a busy year for the newly formed Albert Consort, which completed its first season in May 2004 with concerts in Binghamton and Ithaca, NY. The ensemble, which plays on second-generation octet-family instruments, has managed to cope with a host of unexpected events, according to luthier Robert Spear, who built the instruments.

**Becoming an Octet.**
The group began as a tenor quartet consisting of soprano, mezzo, alto, and tenor violins. Music using these four voices was arranged for the performance given at the Ithaca First Unitarian Church on November 30, 2003. However, by that date Spear had completed a baritone, so the quartet became a quintet, and several selections including the baritone were added.

The consort performed an abridged version of the November program in April 2004 at the Steadman Theatre for the music department at Mansfield University in Pennsylvania, followed by two May concerts in New York state. Between the April and May performances Spear finished a bass, so the quintet suddenly became a sextet. While Spear rushed to finish adapting music to include the latest addition, bassist Michael Griffin accepted the daunting challenge of preparing a solo on an unfamiliar instrument in two weeks. “When Mike took the bass, I wasn’t sure that the varnish was dry,” Spear says.

Both the smallest and the largest of the instruments are currently on Spear’s bench, but since the treble violin will likely be finished first, the next concert will see the sextet grow into a septet. Spear doesn’t know how long it will take him to finish the contrabass—the smaller bass required more than 350 hours—but when he does the group will finally be at full strength.

*The Albert Consort (l to r): Rachel Evans, soprano, Carrie Reuning-Hummel, mezzo; Michael Griffin, bass (foreground); Stephen Stalker, alto; Elisa (Lizzy) Evett, baritone; Sera Jane Smolen, tenor, performing at the First Unitarian Church, Ithaca (NY), May 23, 2004.*
Albert Consort programs usually begin with a short lecture by Spear and include demonstrations of the individual instruments by members of the ensemble. Each talk has been a little different, touching sometimes more on acoustics and sometimes more on history. These talks have been so well-received that they have become a regular part of each concert.

The first program included solos on the tenor and baritone violins, and works arranged for various groupings of the five instruments. This included four excerpts from Bach’s *Art of the Fugue* for soprano, mezzo, alto, and baritone; pieces for string quartet by Mendelssohn arranged for tenor quartet (soprano, mezzo, alto, and tenor); and two works for the full quintet, Conrad’s *Elegie*, which received its world premiere, and Vaughan William’s *Phantasy Quintet*. The latter brought the audience to its feet, and the players were recalled to the stage several times.

After the performance, attendees were invited to meet the players. Many present were student musicians, private music teachers and faculty from area institutions of higher education, and some tried their hand at playing the new violins. This practice has become a part of most public performances since. Audiences have shown keen interest in the octet concept, and many in attendance have lingered for almost two hours after the performance to talk with the players. Roberta Crawford, a violist who served as the house manager for the first concert, commented that every single piece of literature about the new violin family had been snapped up from the foyer desk before the concert, and when the house was cleaned up afterward not a single one had been left behind. Crawford said this was a “first” in her experience.

Spear, who studied with Carleen Hutchins as a member of the Montclair “Garage Gang” in the 1970s, formed the Albert Consort in the spring of 2003 and named it for Albert Mitchell Zalkind, his late father-in-law. The group presently consists of six instruments; the soprano, mezzo, alto, tenor, baritone, and bass violins.

**Spreading the Word.**

For their second performance, tenor violinist Sera Smolen arranged to have the group play in the Steadman Theatre at Mansfield (PA) University where she teaches cello. The consort played a shortened version of their November program for a small but rapt audience of students in the department of music. “The question-and-answer period after the concert was most gratifying,” Spear says. “It became very clear to me that young musicians are the most receptive and supportive audience we have. Any individual or group of octet instrument players who performs for such an audience will find the experience extremely rewarding.”

**Growing Pains.**

Spear notes that plans for the ensemble have changed from his original idea to have one or two concerts each year. Following their debut, the group received many requests to play, but only one could be accepted. Albert Consort programs usually begin with a short lecture by Spear and include demonstrations of the individual instruments by members of the ensemble. Each talk has been a little different, touching sometimes more on acoustics and sometimes more on history. These talks have been so well-received that they have become a regular part of each concert.

Growing Pains.

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Concert-date conflicts with players in other ensembles happen all the time and are usually resolved by engaging a substitute player. This is not yet an option for the Albert Consort. Spear notes that there aren’t any available soprano, alto, or tenor players out there yet, but he believes the problems faced and resolved by groups like his and the Hutchins Consort will one day prove of great value to others.

“I think it’s safe to say there is tremendous interest in the new violin family.”

*Robert J. Spear, luthier*
Dear Readers--

There is much of interest packed into our second issue, so let’s get right to it!

Octet 2005: Celebrating the Hutchins New Violin Family.

We are pleased to announce the first international convention of the New Violin Family Association scheduled for October 30 - November 3, 2005 at the Holiday Inn in downtown Ithaca, New York.

We’ve been working to make this event informative and fun, and one that will finally bring together everyone interested in the promotion of the new violin family. We need to assess your interest for purposes of reserving lodging facilities and performance venues, and to get a general idea of numbers to help us negotiate the best rates. Please take a moment to look at the enclosed information, and if you have any questions about hotel registration or presentations, send me an email or letter.

Interesting and informative presentations are in the works, and, best of all, a great concert with a joint performance by the Hutchins Consort and the Albert Consort. There will be more octet instruments under one roof than have ever been seen before, and other surprises, too!

Many Thanks.

We (the editorial “we”) thank all the readers who sent us so many nice comments about our first newsletter. A number of people who made important contributions deserve to be recognized. Margaret Sachter gave much time and many thoughtful suggestions for improving clarity and readability, and she also assisted with editing our lead story. Edith Munro supplied many of the photos we used in digital format, and André Larson made available photographic materials for the articles about holdings at the National Music Museum.

Paul Laird contributed information for our article on the Hutchins Consort, as did Alan Carruth and Don Bradley for our piece “Generations” on the history of the original sine-wave generator. Ephraim Segerman gave considerable background for “What’s Old is New Again.” Last, but certainly not least, Carleen Hutchins saved me (the individual “me”) from innumerable goofs and gaffes. To say that her experiences are broad and her knowledge of this field encyclopedic would be the understatement of the decade.

Luthier’s Workbench.

This new feature is intended for luthiers building instruments of the new family. We hope to present useful and practical information to help in the construction of octets, and provide a place where your editor and other luthiers share some of their methods, hints, tips, and advanced techniques. This should go a long way toward helping new luthiers avoid reinventing the wheel. Readers, let us know how you like it, and luthiers, send us your tips, photos, and drawings!

Survey Results.

The returns on our recent questionnaire are mostly in, and it is safe to say that our membership is not a dull group! The results of what we learned will be reflected in the newsletter beginning with this issue, and a full tabulation will appear in a future newsletter.

Redesigned Web Site.

Our updated website went online in March, 2004. Bob Miller, our outgoing Webmaster, has done a wonderful job initiating a full redesign of the site, a task now assumed by our incoming webmaster, Tim Trott. Notable new features include sound clips of the various performing octets and instruments, links to musicians who have recorded CDs with octet instruments, and a constantly updated concert and events calendar. Browse to <www.newviolinfamily.org>. See you there!

R. J. Spear, Editor
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Readers, let us know how you like it, and luthiers, send us your tips, photos, and drawings!
Octets and Museums.
Two things could be done to improve propagation of octet instruments. The first is to stop giving them to museums.

I am a member of CIMCIM (Comité International des Musées et Collections d’Instruments de Musique), which consists mainly of museum curators of musical instrument collections. I have come to know curators who are not interested in loaning out instruments, although some do. Most are mainly interested in historical instruments and the milieu in which they were made. The instruments seldom escape their glass cages, and looking at them doesn’t allow people to hear or try them (although many museums have sound examples of instruments of all sorts).

Instead of giving instruments to museums I think they should be given to teachers who have an interest in them. They would encourage their students to try the instruments and should be given music for them. Students of all levels would be encouraged to try the instruments and to play them in groups, as well as learning the few differences in technique needed to switch from one instrument to another. Many players start to learn when they are quite young, and it should be the same for players of the new violin family of instruments.

--Fred Lipsett of Ottawa is a retired physicist and alto player.

Carleen Hutchins responds: Of the eight octets, three are in museums, one is in a university collection in Scotland, two are available for trial and demonstration in Wolfeboro, one that lacks a contrabass is in New York City, and one is owned by a professional ensemble. We have found that having a few sets in museums is a good way to introduce them to the public. In the years I traveled and lectured with the octet, I showed them to thousands of people a few hundred at a time. Yet in one exhibit in one museum, just one set already had been seen by something like 100,000 people, maybe more, and that number keeps growing. The result is that even now we continue to meet important and helpful individuals that we otherwise would have had no way of meeting.

Although I hope that one day many octets will be used privately by teachers and their students, I think that some of the original sets qualify as historical items. As such, they will receive the care of trained conservators and technicians, and their preservation will ensure that they are always available for study. (This is implied in the NVFA mission statement below--ed.).

Bravos and Baritones.
I am so impressed with your splendid job as editor of the Newsletter! It is filled with interesting articles—beautifully written and elegantly laid out. Bravo!!

I spent a delightful day recently with my former cello teacher and good friend, Lynden Cranham, who was visiting from England with her husband. She is a fabulous cellist and up until recently played with the Academy of Ancient Music, the Hanover Band and others in England. I of course told her about the New Violin Family and she had to see and play the baritone. She was quite smitten! She kept repeating how beautiful it was to look at, marvelled at how big the sound was for such a narrow-ribbed instrument, and was delighted by how responsive it was to the bow. She was beguiled by its unique sound quality, commenting that she had never heard anything like it. She told me that if she had heard it without seeing it, she never would have guessed what she was listening to. She made it sound gorgeous.

--Elisa Evett of Ithaca, NY is a founding baritone player of the Albert Consort.

A Colleague Compliments.
A very nice newsletter! I like the feel and the many photos of people with instruments. I also learned a lot of things going through this newsletter, and I thought the piece on the CAS/VSA merger was overall pretty accurate. I think your newsletter is outstanding!

--Jeff Loen of Kenmore, WA is a violin maker, researcher, and past editor of the CAS Journal.

The opinions expressed by our readers are not necessarily those of the NVFA. We welcome your letters and would like to include your photo with anything we print.

Errata
In the last issue we incorrectly identified the maker of Fred Lipsett’s alto as Peter Aylmer of Quebec. We meant to identify him as Peter Mach, who lives in Aylmer, Quebec.

In our story “New Instruments for New Times” we got luthier Tom Knatt in the wrong state. Tom resides in Concord, Massachusetts, not the city of the same name in New Hampshire.

Our fumble-fingered attempt at Don Bradley’s email address was almost perfect, except for reversing the last two letters. Try again! <sonomadb@sonic.net>

Thanks to Oliver Rodgers for bringing this to our attention.

Letters to the Editor

The mission of the New Violin Family Association is to educate the public about the new violin instruments through writings, concerts, lectures, and demonstrations; to encourage players to use the octet violins in public performance and teaching; to stimulate the composition of music for the violin octet and to make such music available to the public at large; to instruct others in the making of octet violins; and to sponsor the collection and preservation of documents and other material relating to these violins and their development so that such archives are generally available.
The tiny treble violin presents both unique challenges and special opportunities for the musician. Four musical pioneers share their thoughts and experiences about the small instrument with the big voice.

Treble Delights

Sir Grigory Sedukh first saw the treble at St. Petersburg in November 1993 when his friend, Josef Levinson, asked him if he wanted to see “one interesting violin” that he had recently received. Sedukh thought he would be shown a nice 18th-century Italian instrument, but the violin he saw was the smallest member of a new violin family octet sent from America by Carleen Hutchins.

“I was amazed. I was wonder-struck on the spot when I opened the case. I told Josef that I begin to play this violin immediately.”

Grigory Sedukh

Sedukh played his treble in her living room. “He played like a god,” Hutchins recalls. “I went into my shop, got a treble violin and gave it to him.” Margaret Sachter recalled that Sedukh was ecstatic. “He wrapped his arms around it,” she says, “and hugged it like a baby.”

“My solo career began at this moment,” Sedukh writes. It was the first career of its type in the world. He soon discovered that there was little music to play. He arranged over 100 pieces for treble, and he shares these and his years of experience with other musicians just starting out on the treble. Although the St. Petersburg Octet has temporarily disbanded, Sedukh continues to play violin in the St. Petersburg Philharmonic and arranges some of his foreign appearances as a treble soloist in places where the larger group is traveling. For his work Sedukh has been made a Knight of Honor of the Order of St. John of the Jerusalem Knights of Malta.

Chien Tan had a sudden and almost unexplainable urge to play the treble violin and do what she could to further the acceptance of the violin octet. She believes that “interest in the new violin family is widespread and growing,” and she wants to play a meaningful part.

Tan trained at the Cleveland Institute and the California Institute of the Arts, working toward a career as a violinist that has led to her current position as principal second violin in the Portland (OR) Symphony. But she wanted to avoid being defined as only an orchestra violinist. That led her to purchase a treble violin from Carleen Hutchins late in 2003 and be-

continued next page

It’s been a joy performing and learning to play the treble violin. It allows me to immerse in a new level of creative process and to think outside the box.

Chien Tan

The beauty of this instrument is not only the virtuoso aspect of it but the ability to play in such a high range without losing any quality of tone.

Reginald Clews
gin making adjustments to its small size.

“Everything is micro,” Tan says. “The intervals between the notes are smaller, and the vibrato is smaller. You have to coax the sound. I’ve had to learn to be patient.” Tan soon realized that the little violin had made a big impact on her life, a common thread in the stories of the treble violinists we interviewed. “The treble violin has changed the way I perceive myself,” Tan says. “It’s opened the definition of who I am.”

Tan’s career as a treble violinist had a modest start. Her first public performance was for “Chamber Music on Tap” at the Bridgeport (OR) Brew Pub on February 18, 2004 playing Mozart’s “Queen of the Night” aria accompanied by a group called “Four Violas to Go.” “The soprano who was going to sing the aria fired herself,” Tan told us, “and I offered to play the part on treble.”

The pace has quickened since then. Tan has created her own web site devoted to the treble violin <www.trebleviolin.com>, the first of its kind. Tan’s site also includes audio clips of the treble that visitors can download and hear for themselves how Tan’s patient practicing has paid off.

The Oregon Public Broadcasting station’s Art Beat, a show featuring Oregon artists, became interested in producing a story about the treble violin. A music video featuring a movement of a Baroque concerto played on the treble was done over a period of three weeks in March 2004. Tan believes combining the treble violin with the distribution of a classical music video will allow a wider audience to experience the new sounds of her playing. Broadcast of the video is scheduled for November. In June 2005 Tan hopes to perform a recital with members of the Albert Consort in Ithaca, NY.

Reginald Clews’ association with the treble violin and the Hutchins Consort began at the same time with a phone call from bassist Joe McNalley asking him to play violin in an octet. Clews says that he jumped at the chance. “I loved the idea so much I said yes before Joe told me what kind of organization it was,” says Clews. “I figured it would just be a group of people getting together to play chamber music.”

Clews’ choice was somewhat proscribed since McNalley had already found players for the soprano and mezzo, and the treble was the only instrument left. That was fine with Clews. “It was the instrument I would have picked anyway,” he told us. “It fits my personality.” Playing the treble violin is something that Clews, a fourth-generation musician in his family, has come to consider his mandate. “It’s what I do for a living now,” he says, which makes him a member of a rather exclusive club.

Like Sedukh, Clews went through a major learning curve when he began playing the treble. “Adjustment is the first thought that must go through a player’s mind when he sees the treble violin,” Clews says. “Consecutive semitones require a great knowledge of half position, and above fourth position one finger must be moved out of the way before the next can be accurately placed.” Clews devoted months of exercises training his muscles for new fingering patterns.

Clews sees the treble violin as the “perfect solution” for modern composers looking for something new. “New frequencies, a new spectrum of overtones, and, of course, that rich, resonating E string that sounds oh, so pure.” Clews recently released a new CD, Praeludium in the Park, that features the treble violin on half the tracks and his conventional violin on the other half so that listeners can hear a good comparison between the two.

Clews writes that during his recording session he could not resist the temptation to take the arpeggios at the end of Elgar’s Salut d’Amour yet another octave higher. He says, with evident satisfaction, “I believe I reached 12 notes beyond the highest note on the piano with that one.”

I took this instrument home and played it every waking hour for two straight days. I gave myself a terrible headache, but I learned where all my fingers go.

Linda Case

Linda Case, who studied violin at Indiana University with Josef Gingold, is the newest player to take up the treble violin. Case says she was brought to the treble by her inquisitive nature. “I was looking for something new
The tiny treble violin is the smallest member of the violin octet, but it presented its designers with the biggest problems. Carleen Hutchins explains why it was originally called "Treble Trouble."

With strings tuned an octave above the normal violin, the treble violin is the smallest and highest-sounding instrument of the New Violin Family Octet. It was the hardest instrument to design and construct as a playable, good sounding instrument – so much so that its creators called it "Treble Trouble." Almost everything about building a violin had to be rethought. Rembert Wurlitzer loaned me a “dancing master’s" pochette – so called because its nearly cylindrical body shape made it possible for the dancing master to slip it into his coat tail when not in use. We learned that this small instrument was tuned like a violin.

**Design Dilemmas.**

The first problem was size. No string instrument was available that sounded a full octave above the violin. Our treble was one of the last octet instruments to be developed. By then we had created and refined the scaling curve, based on my empirical experiments and Schelleng’s scaling theory, on which the lengths of the other successful octet instruments had been built. We extended the curve another half-octave on the chart and came up with a body length approximately that of child’s quarter-size violin.

I had a pattern this size I had gotten some years before from Pasqualini in Italy, so we kept its overall shape and dimensions but made longer f-holes and shallower ribs. We also designed a violin-type neck for adult fingers with a string length as long as possible to avoid the need to slide the fingers around when playing consecutive semitones. We also tried many experiments to raise the A1 (air) frequency such as shallower ribs, larger neck and tail blocks, and thicker plates, as well as longer, narrower f holes.

**Construction Complications.**

The ribs posed another real problem. How thick would they need to be to withstand the extra forces from strings tuned an octave above those of the violin? Could wooden sides support these increased forces? How shallow could the ribs be and still provide adequate support for the neck? I was so concerned that the thin wooden ribs would not withstand the extra tension that I decided to make the first set out of 1 mm thick aluminum strips cut from leftover edging I was using to remake my kitchen tables. The edges was in the shape of a right angle, so I sawed it off at the bend to get the strips for the ribs. I experimented for months learning how to bend the material smoothly. We finally found a glue that would join the ribs to the back and belly, but I had to use rivets to join the ribs at the corner blocks. At last the metal-ribbed treble was ready to play. It sounded awful-- thin and squeaky and with almost no "ring." I took a half-round file and filed a smooth groove all around in the center of the ribs, checking sound qualities as I progressed. To my delight, the tone gradually improved as the groove was deepened and made the sides more flexible.

Then Schelleng suggested I bore holes in the ribs at certain places to raise the frequency of some of the lower cavity air modes, but this was a step in the wrong direction. With several changes based on Chladni free plate tests and lowering plate frequencies, which required...
removing both top and back plates, the resulting sound became clearer and had more of a ring—especially on the two lower strings. In the end we returned to wooden ribs and the results were even better. I still have that first instrument.

**String Strife.** We could find no material with enough tensile strength to withstand the tension of \( e'' \) (1325 Hz) at a length dictated by the standard violinmaker’s formula for neck dimensions. At first we used conventional violin strings in all sizes and got a surprising number of them to work, but nothing we tried would suffice for the \( E \) string. To keep a more comfortable string length, we made the neck two centimeters longer and tuned the strings down a step, but we still could not find an \( E \) string that would not break.

Finally, through the Bell Telephone laboratories, we located carbon “rocket wire” manufactured by the National Standard Company in Niles, Michigan. Even though the wire is only 0.007” in diameter, this space age-material had a tensile strength of 530,000 psi (pounds per square inch) as compared to 350,000 psi for standard steel \( E \) string wire. Rocket wire worked quite well, but musicians still complained that even if the string did not break, the instrument was much harder to play with strings tuned a tone lower.

We made a longer nut, thus shortening the string length so a rocket-wire \( E \) could be tuned to 1325 Hz and still hold. The string length of 8-2/3 inches continues to pose problems for many players, especially those with wide fingers, and it is still difficult to finger consecutive semitones without sliding the fingers around.

**A Duckling Becomes a Swan.** This small “violin,” known to those of us who developed it as “Treble Trouble,” is now very musically successful, although it is the most difficult to play well and requires the best players. Nobody has been more surprised than I that of the eight instruments in the octet, the treble has been the first to attain a reputation as a solo instrument.

A CD recorded by Sir Grigori Sedukh is available from the New Violin Family Association. Sedukh was knighted for his many beautiful performances, compositions, and arrangements as well as music he has developed for the treble violin.

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**Hutchins Consort Featured in *Strings* Magazine**

Quite a bit of attention has been focused on the Hutchins Consort recently, and the Encinitas, California-based ensemble will be featured in the October 2004 issue of *Strings* Magazine. Consort founder and contrabassist Joe McNalley (see photo, right) will also be featured in the winter issue of *Double Bassist* Magazine from the same publisher. McNalley tells us that the latter article will detail the way he built travel trunks for the baritone, small bass, and contrabass violins.

A CD recorded by Sir Grigori Sedukh is available from the New Violin Family Association. Sedukh was knighted for his many beautiful performances, compositions, and arrangements as well as music he has developed for the treble violin.

*Carleen M. Hutchins*
Events Calendar

Ongoing Exhibit


October 29, 2004

Hutchins Consort. Neurosciences Institute, 10604 John Jay Hopkins Drive, La Jolla, CA. Program with J. Schneiderman, lute; Kohaut, Deak, Schubert, Elffmann. 8:00 p.m. $$

October 31, 2004

Hutchins Consort. Irvine Barclay Theater, 4242 Campus Drive, Irvine, CA. Repeat of October 19 program. 4:00 p.m. $$

November 20, 2004

Concerts at the Church at Aust. South Gloucestershire on the English side of the River Severn, UK. Programme of music for the New Violin Octet; Skeaping, Mann, others. 8:00 pm. £ 5-8. Info: Peter or Gina Dobbins, 01454 632306 or email <info@music-in-the-church-at-aust.org>.

November 26, 2004

Hutchins Consort. Neurosciences Institute, 10604 John Jay Hopkins Drive, La Jolla, CA. Program with Alan Vogel, oboe; Vaughan Williams, Zavateri, Torelli, Sweelinck, plus world premiere of Amos’ Concerto for Octet. 8:00 p.m. $$

November 27, 2004

Hutchins Consort. Irvine Barclay Theater, 4242 Campus Drive, Irvine, CA. Repeat of November 26 program. 4:00 p.m. $$

January 21, 2005

Hutchins Consort. Neurosciences Institute, 10604 John Jay Hopkins Drive, La Jolla, CA. Fifth Anniversary Concert: Tchaikovsky, Ravel, Janacek, others. 8:00 p.m. $$

January 22, 2005

Hutchins Consort. Irvine Barclay Theater, 4242 Campus Drive, Irvine, CA. Repeat of January 21 program. 8:00 p.m. $$

February 11, 2005

Hutchins Consort. Neurosciences Institute, 10604 John Jay Hopkins Drive, La Jolla, CA. Program with Charles Curtis, cello; Ulisse, Greig, others. 8:00 p.m. $$

February 12, 2005

Hutchins Consort. Irvine Barclay Theater, 4242 Campus Drive, Irvine, CA. Repeat of January 21 program. 8:00 p.m. $$

February 18, 2005

Albert Consort. First Unitarian Church, Ithaca, NY. Program with composer Laurie Conrad; Original quintets for New Violins. 4:00 p.m. Free

March 18, 2005

Hutchins Consort. Neurosciences Institute, 10604 John Jay Hopkins Drive, La Jolla, CA. Program of Improvisation: Premiere of Davis work for Octet, Brubeck, Kenton, Gershwin. 8:00 p.m. $$

March 19, 2005

Hutchins Consort. St. Mark’s Presbyterian Church, Newport Beach, CA. Repeat of March 18 program. 8:00 p.m. $$

May 6, 2005

Hutchins Consort. Neurosciences Institute, 10604 John Jay Hopkins Drive, La Jolla, CA. Program of Movie Music with Evren Ozan: Barber, Corelli, McNalley, others. 8:00 p.m. $$

May 7, 2005

Hutchins Consort. Balboa Theater, 3638 Balboa St. at 38th Ave., Newport Beach, CA. Repeat of May 6 program. 8:00 p.m. $$

(For additional information about the Hutchins Consort: Joe McNalley, 760 632 0554; <joemcn@hutchinsconsort.org>)

Please note that concert times and venues are subject to change. For updated events information keep visiting our web site at http://www.newviolinfamily.org/events

Planning an Event?? Giving a Concert?? Know Who Is??

Please send all concert and event announcements to R. J. Spear <rispear@zoom-dsl.com> or by mail to PO Box 6562, Ithaca, NY 14851.

We also welcome submissions for articles, Letters to the Editor, Luthier’s Workbench, and Lighter Moments. Please include your name, address, and a small photo of yourself (digital format preferred) with your submission.
People in the News

Sera Smolen played *Meditation* from the Jules Massenet opera *Thais* at the 2003 Christmas Eve service of the First Presbyterian Church in Rome (NY), accompanied by Edris Kalin, pianist. Smolen, who plays tenor in the Albert Consort, reports that the congregation was stirred by the tenor sound and that she was stopped “at least 40 times” by individuals who wanted to know more about the tenor. Other musicians present remarked that the sound of the tenor “filled the entire church.”

John Cavanaugh, President of the Super-Sensitive String company, announced a program to upgrade and improve the quality of the strings made by his firm for the new violin family. Cavanaugh is looking for players and makers to test the strings and report back their observations and suggestions. Readers can email Cavanaugh at john@supersensitive.com. Other information is available on the company’s web site <www.supersensitive.com>.

He has since made 154 instruments, including a harpsichord, two harps and 50 contrabasses.

Dr. André Larson, director of the National Music Museum in Vermillion, SD announces an exhibit of three experimental instruments donated in 2001 by Carleen Hutchins. These include the famous “Swiss Cheese” violin, so-called because it has 65 holes drilled in its ribs, the flat-top viola on which more than 100 acoustical experiments were performed, and one the earliest violins ever made with a graphite-epoxy top. Much of the information gained from these instruments has found practical application in the violin octet. The exhibit began in May and is scheduled to run until sometime in 2006. A report on these instruments was published in the Winter, 2004 newsletter.

Peter Chandler of Ilderton, Ontario, Canada tells us that he has constructed nine alto violins so far, and that he has one of each in Italy, South Africa, and Wales, and five in the United States—but only one in Canada! Inspired by the sight and sound of an octet Carleen Hutchins brought to London, Ontario in the 1960s, Chandler obtained an original plan and started building alts. He says at first nobody wanted them. That changed when Ralph Aldridge, a professor of viola, heard two alts at a music camp and reconsidered his unfavorable opinion of the instrument. Chandler did not begin making instruments until he retired from farm work 18 years ago when he was 57 years old.

Ted Mook recently performed selections from Harry Partch’s *Seventeen Lyrics of Li Po* in Alice Tully Hall during a concert for the Chamber Music Society of Lincoln Center. Mook played a Hutchins tenor violin in place of the “adapted viola” originally called for by the composer. Partch developed the unconventional instrument by grafting a cello neck on the body of a viola. Mook has used the tenor violin instead because it is more suited to the range of the music and has better acoustical properties. In addition to being one of New York City’s best tenor players, Mook is a composer who also has used the alto violin in some of his compositions.

Michael Griffin, assistant principal bass with the Rochester (NY) Philharmonic, has joined the Albert Consort as an occasional bassist. Griffin became interested in the octet in 1983 when he corresponded with Carleen Hutchins about his Italian bass. Griffin owns Luthier’s Care, a Rochester violin repair shop, and he is familiar with plate tuning from his early studies in Indianapolis with luthier Al Stancel, who learned the system from Hutchins. Griffin says the violin octet is going to be “the new phenom,” and he looks forward to playing in an ensemble with a distinctive new sound.
**Tip #1: Molds for Treble and Soprano.**
For a soprano or a treble violin mold, 3/8-inch (app. 9 mm) softwood plywood stock represents a good size compromise. MDO (medium-density overlay), available at most lumber centers, is another good material. Imported hardwood plywood 11 mm thick is best if you can find it. Heavier stock can be planed down.

On this alto violin, the spacing of the mold to align with the center of the blocks can be seen. The same for the cello in the rear.

**Tip #2: Setting Blocks for Small Instruments.**
The usual methods of gluing the blocks to the molds do not work well with the two smallest octet violins. Normally, the mold is set on spacers and the blocks are glued in the middle, which centers the mold on the blocks and leaves enough room to attach the lower liners. For the treble and soprano the usual procedure must be altered due to their shallow rib heights of 18 mm and 21 mm respectively.

All six blocks must be exactly the same height. Spacers are still used, but sized so that they raise the upward-facing surface of the mold flush with the tops of the blocks as they rest on a true flat surface (see photo, below). Violin or viola bass bar stock planed flat makes excellent temporary spacers if you don’t want to create a permanent set. The upper and lower blocks are placed first and held with small clamps, after which the remaining four blocks can be easily set in place. Before gluing you can visually align them flush with the surface of the mold if the weight of the clamps causes any rocking.

**Tip #3: Alto Back from Cello Neck Block.**
Tenor top wood can come from a standard cello top without much waste, but sometimes cello wood has knots or other defects that can be cut away when building a tenor. If you are willing to do a little searching and glue a crack or two, you can often negotiate a saving. Some dealers have spruce for bass gamba tops 32” (813 mm) long, which yields a tenor top with less waste than a 36” (914 mm) cello billet.

Finding wood for the contrabass generally has been a serious problem, but International Violin (<www.internationalviolin.com>) almost always stocks backs that are 51” (1296 mm) or a bit longer with tops to match. While this wood is still too short for the original contrabass design, Carleen Hutchins recommends reducing the model slightly in length and width in exchange for reliable sources of material.

**Tip #4: Tonewood Sources.**
Bruce Harvie, proprietor of Orcas Island Tonewoods (<www.rockisland.com/~tonewoods/>, sells handsplit billets of Engleman or Sitka spruce (originally intended for arch-top guitars) that will easily yield an alto top, and the ones we have seen are so nice that we bought four of them! Other suppliers also should have this size, giving you a choice of species and price. Two sets of standard viola ribs will provide enough material for the ribs of an alto with starter pieces left over for the next one. Tenor back and scroll wood can often come from a bass scroll block.

An alto back and scroll laid on top of a cello scroll block. The narrow edge of the block is raised with a glued shim underneath to facilitate square cutting with a band saw.
June Board Meeting

NVFA bylaws require the board to meet twice each year, and the first meeting for 2004 took place on June 26 at the Wolfeboro, NH home of Executive Director Carleen Hutchins. Interim President Robert J. Miller could not be present due to the recent arrival of a new family member, and Vice-President Joseph Conrad was in the hospital for coronary bypass surgery. In the absence of the Treasurer and Secretary, Hutchins conducted the meeting.

In addition to Miller, Trustees Paul Laird, Joe McNalley, Pamela Proscai, Margaret Sachtner, and Treasurer Charles Rooney participated by means of a conference call. Present were Francis Furlong, Scott Ponicsan, Joseph Peknik III, and D. Quincy Whitney. Also attending were Robert J. Spear, newsletter editor, and Alan Carruth in an advisory capacity.

Changes in the Board.
Ted Jones and John Cavanaugh were elected as new trustees. Cavanaugh (see picture on page 10), who was out of the country on business at the time of the meeting, is president of the Super-Sensitive String Company and brings much expertise in the music industry. Interim President Miller said that he will step down no later than January 1, 2005 to devote more time to his family and to NVFA activities that he feels best utilize his talents in non-administrative areas such as providing services, advice, expertise, composition, and the formation of an octet in Denver. Trustee D. Quincy Whitney was given a leave of absence for research (more on p. 16).

Reports.
The treasurer’s report was read and accepted. NVFA is running a deficit of $8,685, but Rooney said that cash assets of $11,673 more than cover the shortfall. He noted that the fiscal year does not end until September 30 and that donations are still coming in. Liens against musical instruments in the amount of $60,000, formerly held by the Catgut Acoustical Society, have been transferred to the NVFA and may now be restructured to release additional cash assets. Normally, the liens are paid when instruments are sold with the remaining balance going to the maker, Carleen Hutchins, who is now free to repay the liens personally.

Newsletter editor Spear presented the results of the questionnaire included in the Spring 2004 issue (more next issue). Spear also announced that his preliminary work indicated that it was both feasible and desirable to hold the first NVFA international conference in Ithaca, NY in October of 2005. The board voted to authorize the formation of a special bank account through Smith Barney to allow Spear meet organizational expenses and receive revenues.

President Miller’s report addressed the need to reprint and press additional copies of the St. Petersburg Violin Octet CD. Less than 300 copies remain of this disc, which has long been the association’s best-seller. Although 500 copies would suffice, Miller recommended a more cost-effective run of 1,000 copies. He also recommended that liner notes be revised to replace the Catgut Acoustical Society logos, listings, and copyrights with those of the NVFA.

Miller reported that the Frank Lewin CD project is now complete, and that he will mail copies to all North American classical music radio stations, selected publications, and periodicals. Miller cautioned that new accounting methods will be needed as additional NVFA CDs are released. He urged the board to begin publishing music written for the octet. At least 45 pieces are in the central office files, and others are being written. This would begin to address a serious shortcoming on our website, where at this time only a few pieces are available for purchase.

Miller stated that the job of developing and maintaining the NVFA website has become too demanding to handle in the time he has available and notified the board that he will relinquish his position as volunteer webmaster no later than January 1, 2005. Fees and expenses for the site are paid through the end of the year, Miller said.

Other Reports.
Joe Peknik reported on the octet exhibit at the Metropolitan Museum of Art (see “News in Brief” on p. 14). Ted Sheridan’s report stated that the project to convert octet construction drawings into digital format was halfway completed, with drawings of the four largest instruments now available in three common computer formats, PDF, DWG, and DXF.

Edith Munro’s written report on her archival project revealed that she has indexed at least 458 photos and charts and converted them to digital format. Lin Tolefsen of Green Bean’s production wrote that her video project on the octet has spanned two years, and that she is preparing a proposal for the NOVA series on public television. Joe McNalley’s report reviewed the Hutchins Consort for the 2003-2004 season and provided the tentative schedule for the 2004-2005 season, including proposed tours of the octet to Australia and New Zealand.

Special presentations were made by Dr. Robert Nersasian from Boston and Jack Koefed, former CEO of Binney and Smith. The next board meeting is scheduled for October 23 in Wolfeboro, New Hampshire.
by George Bissinger

A distinct stutter in the rote tradition of violin making occurred in the 1960s when Carleen Hutchins and John Schelleng collaborated in the first-ever attempt to apply scientific precepts to the art of making higher and lower-pitch violins. What turned out to be important was the vibrational behavior of the instrument body in conjunction with that of the strings at the low end, and the limitation of material strength at the high end.

In retrospect the approach adopted by Hutchins and Schelleng might seem simplicity itself, but that would be illusionary. There were two main steps: first, determining the most important resonance modes for the violin and second, applying physics to scale these selected mode frequencies to larger and smaller instruments, which, by the way, happens to be something that had never been attempted before in the 400-year history of violin making.

Two major radiating modes in the open string region of the violin were chosen based mainly on the Saunders loudness test performed with a sound level meter. One of these modes - the “main air” - was a cavity air mode (now generally labeled A0 and thought to be a Helmholtz-like mode), and the other was a “main wood” (now generally labeled the B1 modes). Each had an entirely different physical mechanism, and neither was fully understood.

Unaware that equations were available to reliably predict these mode frequencies, the Hutchins-Schelleng team scrutinized a broad range of bowed string instruments in order to understand their “main air” and “main wood” properties. They hoped that mode properties of octet violins could be determined from these instruments. This purely empirical approach was augmented by Schelleng’s simplified “scaling” approach, a first in violin-making. He made all the instruments the “same shape” and he assumed they were all flat plates. After the shock of this passes let me note that the general acoustic radiation properties of the violin actually turn out not to be too far removed from those of the flat plate.

To make a long story short, I measured the normal mode properties of a full octet in my lab at East Carolina University and did some room-averaged sound output analysis to see which modes radiated the strongest. The setup for the large bass stretched our capabilities (and overhead clearance!) to the limit. All octet members were measured pretty much the same way. The instrument was hung by elastics underneath the incurved section at the lower end of the C-bouts. A small force hammer struck the bridge at the lowest string corner, parallel and approximately perpendicular to the “plane” of the violin while a scanning laser vibrometer traversed about 500 points over the entire surface including the bridge, tailpiece, and neck-fingerboard assembly.

We generate a “resonance profile” for each instrument this way and then by looking at animations we can go back and identify common vibrational modes across the whole octet. In this way we were able to conclude that generally flat plate scaling procedures work (!!) because the main wood resonance always appeared close to where it was predicted to be (except for the baritone, which has top and back plates a bit thick).

As for the air modes (note the plural!)? Lots of surprises! The old Helmholtz-like character was certainly there for the “main air” A0, but it had a companion mode A1 that is coupled to it and falls about 1.7 times the A0 frequency. A1 is an air mode that sloshes back and forth along the violin from top block to bottom block, meeting up with the A0 mode air sloshing in and out of the f-holes in the C-bout region. It actually makes the plates move and is capable of radiating this way (but not out the f-holes) significantly at times, but for a violin never so much as the B1 modes. A1 co-habits the frequency range of the “main wood” B1 modes and is generally lost in their radiation, but this changes as the instruments increase in size. In the
Hutchins contrabass I tested, the “main wood” radiation is almost all from A1! I observed this again recently when I tested a Spear small bass, and in these largest instruments the higher air modes A2 and A4 start to radiate significantly, too!

While others will determine musically where the violin octet will land and whether it will become some significant part of the music landscape in the future, I can say that measuring the violin octet was a high water mark for me in terms of understanding some of the acoustic behaviors linked to varying size, especially how the increasing wall compliance affects how it radiates.

It is also an encyclopedia of information for makers interested in understanding the violin. The fact that cavity modes that cannot radiate through the f-holes, even those restricted to the lower bout or upper bout of an instrument, can radiate significantly through forced plate motion is a wonderful example of the importance of wall compliance in the sound of these instruments. The experiences with the construction of the octet related by Carleen Hutchins in her JASA paper will tickle your ribs (inside joke). These combined with all the modal analysis and radiation measurements now available across the octet are certainly something that makers will be able to draw on for the foreseeable future.

Concert in the Church at Aust. The period of octet inactivity that has manifestly ended here in the States seems to have its counterpart across the Pond. The octet presently kept in the Edinburgh University Collection of Historical Musical Instruments will come out for inclusion in the delightful series of Concerts at the Church of Aust on November 20, 2004. Under the direction of Roddy Skeaping, who had charge of this octet during the three years it was at the Royal College of Music in London, the instruments will be played by musicians local to Bristol and Bath, led by players in a string quartet based at Bath University.

The program includes pieces arranged for octet plus other pieces composed by Skeaping, including Crossing the Ether, Chaconne After Purcell and the G minor Prelude after Bach. A piece by Terry Mann, Eight Verses for St. Augustine, will receive its premiere performance. A full report will appear in the next newsletter.

Met Exhibit Extends. The temporary special exhibit of 13 Carleen Hutchins instruments, including a full octet, has proved to be less temporary than originally expected, according to Joseph Peknik, III, principal technician for the Metropolitan Museum of Art’s department of musical instruments. The display, set on the north balcony of the André Mertens Galleries for Musical Instruments, began on May 10, 2002 and was scheduled to close on March 20, 2003. Pete Snelling, tenor violinist of the Albert Consort, told us that she had visited the Met in early May, 2004, and that the exhibition was still running. Peknik says that the display has been both popular and well-received, but since the museum does not take attendance for special exhibits, exact figures must be estimated. The octet was exhibited once before as part of the Met’s Centennial Exhibition in 1989, at which time it was viewed by over 45,000 visitors.

Peknik says that the Hutchins Octet “continues to be a major attraction in the department’s galleries, with visitors particularly intrigued by the displays of early experimentation,” and that the large bass has “especially attracted both young and old. Every time I pass the case, there are people in front of it.” The display will continue in the absence of a fixed closing date, but Peknik advises visitors to call ahead to verify the status of the exhibition and museum hours. Readers can call Peknik directly at 212 570 3919 or send email to joe.peknik@metmuseum.com.

On this CD, composer Frank Lewin shows the instruments in different types of music. The violins’ ability to blend while preserving the distinct tone color of each instrument can be heard in the arrangements of two movements from the Palestrina mass, L’Homme Armé.

Introduction on a Psalm Tune presents the instruments in groupings throughout their gamut. In the four movements of...
Lewin’s composition, *Dramatic Suite for New Violins*, the instruments demonstrate their wide expressive power. The CD may be obtained from the New Violin Family Association, 42 Taylor Drive, Wolfeboro, NH, or on the web at http://www.newviolinfamily.org. For information, email the Association office; <nvfa@att.net>.

**NVFA Gains New WebMaster.**

NVFA Executive Director Carleen Hutchins has announced the appointment of Tim Trott as webmaster for the association’s website. Trott will take over from outgoing webmaster R. J. Miller effective immediately. Trott is the son of Doris and the late James (Jim) Trott, who will be familiar to many readers as a former CAS member and respected long-time acoustical researcher.

Trott comes from a background in recording and both radio and television broadcasting. He was active for many years in the construction of broadcasting studios and as a contractor for commercial sound, fire, and burglar alarm systems. Trott entered the field of web hosting and design in 1994 and sold his contracting businesses in 1996.

Trott has been married to Marianne Trott for 36 years and has one daughter and a new granddaughter. The couple live in Florida where Trott runs Cyberchute, an Internet web hosting firm.

**Changes in Central Office.**

Louisa Jones, who has been serving the NVFA as central office secretary two days a week, has now taken on duties as Director of Development, according to Executive Director Carleen Hutchins. This will allow the central office to be staffed three days a week—Monday, Wednesday, and Friday—instead of just Tuesday and Thursday as has been past practice. Jones is the former publisher of *Coastal Cruising* and author of numerous articles and columns for national magazines. She was former director of development for the New Hampton School in New Hampshire.

**Hutchins Biographer Expands Research.**

D. Quincy Whitney was granted a leave of absence from the NVFA Board of Directors to further her project as Carleen Hutchins’s official biographer. Whitney received a grant from the Metropolitan Museum of Art to work with Joe Peknik, and beginning October 1 she will spend at least six months working in New York City. Late in the summer, Whitney made a month-long tour of Europe. After arriving in London on August 20, Whitney made stops in Cambridge and Malverne, England; Edinburgh, Scotland; Aberystwyth, Wales; Westerlo and Brussels, Belgium; Paris and Nancy, France; Corseaux, Switzerland; Genova and Cremona, Italy; Munich, Mittenwald, Wolfenbüttel; Braunschweig, and Göttingen, Germany; and Stockholm and Tyreso, Sweden.

Whitney interviewed historians, scholars, violin makers, acousticians, physicists, musicians, wood technologists, museum directors, and other colleagues and friends of Carleen Hutchins.

**Lighter Moments**

Your fearless editor varnishes a small bass while perched atop a 4-foot stepladder. He did not manage to get his apron strings into the varnish bowl!
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OCTET 2005
Celebrating the Hutchins New Violin Family
October 30- November 3, 2005
Downtown Holiday Inn
Ithaca, New York 14850

- Sunday, October 30  
  Afternoon Arrival and Registration  
  Evening Reception

- Monday, October 31  
  Open Exhibition Room  
  Lectures  
  Demonstrations

- Tuesday, November 1  
  Open Exhibition Room  
  Lectures  
  Demonstrations

- Wednesday, November 2  
  Open Exhibition Room  
  Lectures  
  Demonstrations  
  Evening Gala Concert with  
  Hutchins Consort  
  Albert Consort  
  Surprise Soloist!  
  Works for Double Octet

- Thursday, November 3  
  Morning Departure

Great Fun with Great Friends and Great Music! More Details Inside!