

American Musical Instrument Society

*Thirty-Fifth Annual Meeting
19 to 23 May 2006*

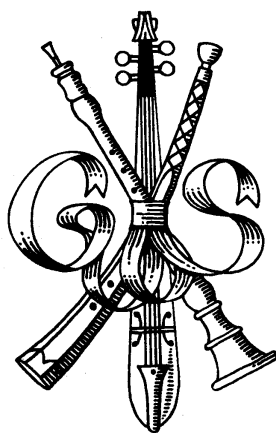


*in collaboration with
The Galpin Society
and
the International Committee
of Musical Instrument Museums and Collections
of the International Council of Museums
at
The National Music Museum
The University of South Dakota
Vermillion*

The American Musical Instrument Society

Kathryn Shanks Libin, President
Darcy Kuronen, Vice President
Caolyn Bryant, Secretary
Marlowe Sigal, Treasurer

John Koster, Program Chair, 2006
Jayson Dobney, Local Arrangements



The Galpin Society

Edgar Hunt, President
Graham Wells, Chairman of the Committee
Maggie Kilbey, Administrator

CIMCIM

**Comité International des Musées et Collections d'Instruments de Musique
Comité Internacional de Museos y Colecciones de Instrumentos Musicales
International Committee of Musical Instrument Museums and Collections**

J. Kenneth Moore, President
Lisbet Torp, Vice President
Gabriele Rossi-Rognoni, Secretary
Patrice Verrier, Treasurer

Schedule of Events

Friday, May 19

- 8:00-11:00 Registration at the National Music Museum (NMM):
Pick up program book and name tag/meal pass
- 9:00-9:45 Tour of the NMM's new Sally Fantle Archival Research Center
- 10:00-10:45 Demonstrations of the NMM's organs by Josef Looßer, Lüppfertsweil, Gemeind Cappel, St. Gall (Switzerland), 1786; Christian Dieffenbach, Bethel Township, Berks County, Pennsylvania, 1808; and David Dutton, Mount Vernon, New Hampshire, c. 1850, played by Jayson Dobney (NMM)
- 11:00-11:30 Works of eighteenth-century Spanish and Portuguese composers played on the NMM's grand piano by Manuel Antunes, Lisbon, 1767, by Susanne Skyrn (University of South Dakota)
- 12:00-1:00 **Lunch** at the Coyote Student Center (CSC)
- 1:15 **Welcoming Remarks** – Arne B. Larson Concert Hall, NMM
- 1:30-2:45 **Eighteenth-Century Keyboard Instruments** – Concert Hall

Chair: Kathryn Shanks Libin (Vassar College, Poughkeepsie, N.Y.)

Gerhard Doderer & Cremilde Rosado Fernandes (Lisbon, Portugal): "How Portuguese Harpsichord and Pianoforte Building Recovered after the Lisbon Earthquake of 1755," illustrated by examples played on the NMM's Antunes piano and harpsichord by José Calisto, Portugal, 1780

Michael Latcham (Gemeentemuseum, The Hague): "Conservation and Compromise in Practice: Two instruments of 1777, a Piano-Harpsichord by J.A. Stein and a Harpsichord-Piano-Organ by Taddeus Tornel"

2:45-3:05 **Break**

3:05-4:05 **The Early Violin and Viol** – Pardee Laboratory, Room 118

Chair: Darcy Kuronen (Museum of Fine Arts, Boston)

Renato Meucci (University of Milan, Italy): "Andrea Amati and the Birth of the Violin"

Benjamin Hebbert (St Cross College, Oxford,* and The Metropolitan Museum of Art, New York): "Geometry as a Social Biography: Investigating the Background of Viol Design"

4:05-4:15 **Break**

4:15-5:15 **Diverse Subjects** – Pardee Lab

Chair: Mary Oleskiewicz (University of Massachusetts, Boston)

Jenny Nex (Royal College of Music, London, and Goldsmiths College*): “Women in the Musical Instrument Trade in London, 1750-1810”

Gabriele Rossi-Rognoni (Conservatorio Cherubini, Florence): “The ‘New Early-Instrument’ Market in the Time of Leopoldo Franciolini”

6:00 **Gala Opening Reception** on the Townsley Courtyard (NMM)

8:00 **Concert** – Concert Hall

Lanzelotte/Galhano Duo – “A due canti”:

“Italian Baroque Splendor: Its Echoes in Portuguese and Brazilian Colonial Musical Style” – Clea Galhano (St. Paul, Minnesota), recorder, and Rosana Lanzelotte, Rio de Janeiro, Brazil, playing the Museum’s harpsichord by José Calisto, Portugal, 1780

* indicates current enrollment as a student.

Saturday, May 20

7:30- 8:30 Coffee, tea, fruit, and breads – Jeanne F. Larson Tea Room/Townsley Courtyard (NMM)

9:00-10:30 **Electrical Music** – Pardee Lab

Chair: Laurence Libin (Steinway & Sons, New York)

Matthew Hill (University of Edinburgh*): “George Breed and His Electrified Guitar of 1890”

John Koster (National Music Museum): “An Introduction to the Choralcelo”

Arian Sheets (National Music Museum*), “Lloyd Loar in Context: Early Electro-Acoustic Instruments of the Vivi-Tone Company”

10:30-10:45 **Break**

10:45-12:15 **Toward the Eastern Edge of Europe** – Pardee Lab

Chair: Sarah Richardson (University of South Dakota)

Zeynep Barut (Technical University, İstanbul): “Musical Instruments of the *Mehter*”

Ioana Sherman (University of California, Riverside*): “Transformation and Totalitarianism: the Case of the Romanian *Fluier* and *Caval*”

Arle Lommel (Indiana University, Bloomington*): “The Hungarian Hurdy-Gurdy in the Nineteenth and Twentieth Centuries: Revival and Change”

12:30-2:00 **Lunch** and AMIS Board meeting at the CSC

2:15-3:45 **Scientific Examination and Analysis of Musical Instruments I** – Pardee Lab

Chair: Arnold Myers (Edinburgh University Collection of Historic Musical Instruments)

Sabine K. Klaus (National Music Museum) & Robert Pyle (S. E. Shires Co., Hopedale, Massachusetts): “A Safe Way to Analyze the Playing Qualities of Brass Music Instruments— Demonstration of the *Brass Instrument Analysis System (BIAS)*”

Micha Beuting (Hamburg, Germany), “An Introduction to Dendrochronology as Applied to Musical Instruments”

3:45-4:00 **Break**

4:00- 5:15 **Scientific Examination and Analysis of Musical Instruments II** – Pardee Lab

Chair: Marlowe Sigal (Newton Centre, Massachusetts)

Ilya Tëmkin (New York University* & American Museum of Natural History): “Phylogenetics and the Evolution of Musical Instruments: the Logic and Limits of Phyloorganology”

Grant O'Brien (Edinburgh, Scotland): "The Statistical Analysis of Lateral String Spacing in Neapolitan and Flemish Seventeenth-Century Harpsichords"

6:00 Native American Tipi Village and Cultural Exhibition:

Dancing, Drumming, and Singing by the Oyate Singers, Wasa Wakpa/Vermillion, S.D., with Dr. Wayne H. Evans, Master of Ceremonies
and

Traditional South Dakota Pig Roast (underwritten by Tony Bingham, London), with vegetable kabobs and traditional Native American fry bread with wojapi, under the tent on the NMM Green

8:30 Recital – Concert Hall

Luisa Morales (Almería, Spain), "Soler & Scarlatti in London," played on the NMM's harpsichord by Joseph Kirckman, London, 1798, with Cristóbal Salvador, traditional dancer/castanets

Sunday, May 21

7:30- 8:30 Coffee, tea, fruit, and breads – Tea Room/Townsley Courtyard

9:00-10:00 **Scientific Examination and Analysis of Musical Instruments III** – Pardee Lab

Chair: John Watson (Colonial Williamsburg Foundation, Virginia)

David Rachor (University of Northern Iowa, Cedar Falls) & Bryant Hichwa (Sonoma State University, Rohnert Park, California): “Analysis of the Baroque Bassoon”

Pedro Manuel Branco dos Santos Bento (University of Edinburgh*): “Natural Chords and Stiffness-Dependent Inharmonicity: Theoretical Study and Practical Experiments”

10:00-10:15 **Break**

10:15-11:15 **Diverse Subjects** – Pardee Lab

Chair: Susanne Skyrn (The University of South Dakota)

Benjamin Hebbert (St Cross College, Oxford,* and The Metropolitan Museum of Art): “Other Writers on Musical Instruments?: The Musical Annotations of Samuel Hartlib, Sir Francis Kynaston and Their London Circle, 1630-1660”

Alicja Knast (London Metropolitan University and Interdisciplinary Centre for Computer Music Research, University of Plymouth*): “Marcin Groblicz – Globetrotter, Alchemist, and Luthier: a New Source for the History of Instrument Making in the Eighteenth Century”

11:15-11:30 **Break**

11:30-12:15 **The Neapolitan School of Harpsichord Making** – Concert Hall

Chair: Grant O’Brien

Francesco Nocerino (Centro Iniziative Didattiche Musicali NaturalMenteMusica, Naples): “Harpsichord Makers in Naples During the Period of the Spanish Viceroy (1503-1707): Recent Discoveries and Unpublished Documents”

David Schulenberg (Wagner College, New York City) with Mary Oleskiewicz (University of Massachusetts, Boston), transverse flute: Mini-Recital on the NMM’s Octave Virginal by Onofrio Guarracino, Naples, 1694

12:30-1:45 **Lunch** and CIMCIM Board meeting at the CSC

2:00-3:30 **Current Research:**

The Nürnberg School of Brass Instrument Making I – Pardee Lab

Chair: Margaret Downie Banks (National Music Museum)

Herbert Heyde (The Metropolitan Museum of Art): “Who Built the Instruments?: The Case of the Nuremberg Trumpet Makers and the *Fecit* Hypothesis”

Klaus Martius & Markus Raquet (Germanisches Nationalmuseum, Nuremberg):
“Encounter with Anton Schnitzer”

Sabine K. Klaus (National Music Museum): “Toy or Status Symbol?: Miniature Horns from Workshops of Renowned Nuremberg Trumpet Makers”

3:30-3:45 **Break**

3:45-4:45 **Current Research: The Nürnberg School of Brass Instrument Making II**

Chair: Niles Eldredge (American Museum of Natural History, New York)

Stewart Carter (Wake Forest University, Winston-Salem, North Carolina): “From Neuschel to Kodisch: Tradition and Innovation in Nuremberg Trombone Making”

Arnold Myers (Edinburgh University Collection of Historic Musical Instruments):
“The Acoustical Design of Nuremberg Brasswind Instruments Before 1779”

4:45-5:00 **Break**

5:00-6:00 **Current Research: The Nürnberg School of Brass Instrument Making III**

Chair: Niles Eldredge

Markus Raquet & Klaus Martius (Nuremberg), “Some New Insights into Nuremberg Brass Instrument Making Technologies”

Robert Pyle (Hopedale, Massachusetts), “Brass Instrument Manufacturing Technologies, Old and New”

6:30 **Dinner** under the tent (also: meetings of CIMCIM work groups)

8:15 **Concert of South Indian Music** – Concert Hall

Introduction by Beth Bullard (George Mason University, Fairfax, Virginia), “Bamboo Flute, Violin, Drum (*mridangam*), and Clay Pot (*ghatam*): The Perfect Instrumental Ensemble for South Indian Classical Music?”

Performance by Kalaimamani Sikkil Mala Chandrasekhar, bamboo flute; Jayashankar Balan, violin; Vinod Seetharaman, *mrdangam*; and Ravi Balasubramanian, *ghatam*.

Monday, May 22

7:30-8:30 Coffee, tea, fruit, and breads – Tea Room/Townsley Courtyard

Concurrent Sessions

9:00-10:30 **The Clarinet** – Pardee Lab

Chair: Deborah Check Reeves (National Music Museum)

Nicholas Shackleton† (Cambridge, England): “A Clarinet Corresponding to the 1842 Patent of Adolphe Sax” (read by Ingrid E. Perason)

Ingrid E. Pearson (Royal College of Music, London): “Gennaro Bosa, Ferdinando Sebastiani and the Development of the Thirteen-Keyed Clarinet in Nineteenth-Century Italy”

Heike Fricke (Musikinstrumenten-Museum, Berlin), “The Elusive Chalumeau: New Light on the Origins of the Clarinet”

10:30-10:45 **Break**

10:45-12:15 **Diverse Subjects** – Pardee Lab

Chair: Stewart Carter (Wake Forest University, Winston-Salem, North Carolina)

Eugenia Mitroulia (University of Edinburgh*): “Adolphe Sax’s Bigger Brasses”

Francesco Carreras (Creative Virtual Systems Laboratory, Istituto di Scienza e Tecnologia dell’Informazione, Pisa): “The Rampone Family of Wind-Instrument Makers in Milan”

Sarah Meredith (Buffalo State College, Buffalo, New York), “Inventing America’s Instrument: The Nineteenth-Century (Re-)Creation of the Banjo”

concurrent with:

9:00-10:30 **Diverse Subjects** – Concert Hall

Chair: Harrison Powley (Brigham Young University, Provo, Utah)

Josephine Yannacopoulou (University of Edinburgh*): “A New Hypothesis on the Origin of the *Gigue*: Myths and Reality”

Mauricio Molina (City University of New York*), “*In quattuor lignis*: reconstructing the History, Timbre, and Performance Practice of the Medieval Iberian Square Frame Drum”

Tim Miller (The University of South Dakota*): ““Eighteenth-Century Bohemian Lutes in the National Music Museum”

10:30-10:45 **Break**

10:45-12:15 **Stringed and Non-Stringed Keyboards** – Concert Hall

Chair: Edwin M. Good (Smithsonian Institution)

Stephen Birkett (University of Waterloo, Ontario): “Authentic Soft Iron Music Wire, 1500-1830”

Giovanni Di Stefano (University of Rome “La Sapienza”*) : “*Tangentenflügel* and Other Pianos with Unpivoted Hammers in Italy During the Eighteenth and Nineteenth Centuries”

Haruka Tsutsui (Kyoto, Japan): “Newly Invented Keyboard Instruments Described in the *Allgemeine musikalische Zeitung* around 1800”

12:30-2:00 **Lunch** and AMIS business meeting (CSC)

Concurrent Sessions

2:15- 4:20 **Diverse Subjects** – Pardee Lab

Chair: Arian Sheets (National Music Museum)

William W. (Billy) Traylor III (Indiana University; Bloomington*): “*Qu’est-ce que c’est un hautbois?*: Some Nomenclatural Problems of the French Oboe Band in the Late Seventeenth Century”

Bradley Strauchen (Horniman Museum, London): “Winds of Change: the 1838 ‘Classical Concerts for Wind Instruments’ and Orchestral Wind Sound in Nineteenth-Century London”

3:15- 3:20 **Break**

Janet K. Page (University of Memphis, Tennessee): “Nuns and Their Musical Instruments in Eighteenth-Century Vienna”

Christina Linsenmeyer (Washington University, St. Louis*), “Competing with Cremona: Violin Making Innovation in Nineteenth-Century Paris”

concurrent with:

2:15- 4:20 **Clavichord and Clavecimbel Making in Sixteenth-Century Antwerp I** –

Concert Hall

Chair: Edward L. Kottick (University of Iowa)

John Koster (National Music Museum): “An Overview”

Darryl Martin (Edinburgh University Collection of Historic Musical Instruments), “The Early Flemish Clavichord: Reconstructing an Instrument after a Portrait by Jan van Hemessen, Antwerp, about 1530”

3:15- 3:20 **Break**

Malcolm Rose (Lewes, East Sussex): “Making a Karest Virginal”

Susan Thompson (Yale University): “The Significance of Contest, Dance, Improvisational and Extemporaneous Activity in the Decoration of a Double Virginal by Johannes Ruckers, Antwerp, 1591(?)”

4:30- 5:15 **Clavichord and Clavecimbel Making in Sixteenth-Century Antwerp II** –

Concert Hall

David Schulenberg (Wagner College, New York City) with Mary Oleskiewicz (University of Massachusetts, Boston), transverse flute: Mini-Recital on the Darryl Martin clavichord after Jan van Hemessen’s image

Charlotte Mattax (University of Illinois) & Sonia Lee (University of Illinois*), Mini-Recital on the Malcolm Rose Virginal after Joos Karest

5:15- 5:30 **Break**

5:30- 6:00 **Special Presentation and Demonstration** – Concert Hall

Chair: Jayson Dobney (National Music Museum)

Ben Harms (New Marlborough, Massachusetts), “The *Schalltrichter* in German Timpani of the Eighteenth and Nineteenth Centuries”

6:30 **Social Hour** at the Winery

7:00 **Banquet** at The Winery

Tributes to Howard Schott and Nicholas Shackleton

Presentation of the AMIS’s Frances Densmore Prize and Curt Sachs Award

AMIS Auction for the benefit of the William E. Gribbon Memorial Fund
Laurence Libin, Auctioneer

Tuesday, May 23

7:30- 8:30 Coffee, tea, fruit, and breads – Tea Room/Townsley Courtyard

9:00-12:15 **The Public Presentation of Musical Instruments** – Pardee Lab

Chair: Gabriele Rossi-Rognoni (Conservatorio Cherubini, Florence)

Darcy Kuronen (Museum of Fine Arts, Boston): “*Dangerous Curves: Creating a Blockbuster Show of Guitars*”

Michael Latcham (Gemeentemuseum, The Hague): “The Presentation of Musical Instruments to the Public”

Monika Lustig (Stiftung Kloster Michaelstein, Germany): “Considerations for a New Exhibition of Musical Instruments in the Context of the Monastery Architecture and Gardens in the Stiftung Kloster Michaelstein”

10:30-10:45 **Break**

Chair: Eszter Fontana (Museen in Grassi – Museum für Musikinstrumente der Universität Leipzig)

Jeannine Lambrechts-Douillez (‘sGravenwezel, Belgium): “Musical Instruments as Part of a Large Non-Musical Collection”

Sara A. Hook (Indiana University School of Informatics, Indianapolis): “*The Virtual Early Flute: New Ways to Present Music History and Early Musical Instruments Using Technology*”

Ruy Alonso Guerrero Ramirez (Mexico City): “The Francisco García Ranz Collection: Description and Registration”

12:30-2:00 **Lunch** and CIMCIM general meeting at the CSC

2:15- 3:15 **Regional Collections**

Chair: Cynthia Adams Hoover (Smithsonian Institution)

Christiane Rieche (Händel-Haus, Halle an der Saale), “An Inventory of Musical Instruments in Local Museums as a Source for Local Music History”

Michael Suing (University of South Dakota*), “A Survey of Plains Indian Musical Instruments in South Dakota’s Historical Repositories”

3:15-3:30 **Break**

3:30-5:30 **The Study of Musical Instruments in the Present and Future** – Pardee Lab

Chair and Moderator: J. Kenneth Moore (The Metropolitan Museum of Art, New York)

Ardal Powell (Hudson, New York), “Change Lays Not Her Hand: Organology and the Museum”

Panel Discussion, with Eszter Fontana (Leipzig), Alicja Knast (Plymouth, U.K., and Poland), Renato Meucci (Milan), Grant O'Brien (Edinburgh), and Ardal Powell

6:30 **Dinner** under the tent

Presentation of the AMIS's Frederick R. Selch Award for the best student paper presented at the annual meeting of the Society

8:00 **Recital**

Susan Alexander-Max (London, England), playing works of C.P.E. Bach, Haydn, and Mozart on the NMM's clavichord by J.P. Kraemer & Sons, Göttingen, 1804, and *Tangentenflügel* by F. J. Spath & C. F. Schmahl, Regensburg, 1784

Afterwards: **Final Reception** at the house of John Koster & Jacquie Block, rural Vermillion

Programs and Abstracts

Friday morning, May 19, 10:00-10:45 – Abell and Pressler Galleries, NMM

The Museum's organs by
Josef Looßer, Lüpfertsweil, Gemeind Cappel, St. Gall, Switzerland, 1786,
Christian Dieffenbach of Bethel Township, Berks County, Pennsylvania
and
David Dutton, Mount Vernon, New Hampshire, about 1850,
demonstrated by
Jayson Dobney,
National Music Museum, The University of South Dakota

About the instruments:

The house organ by **Josef Looßer**, Lüpfertsweil, Gemeind Cappel, St. Gall, Switzerland, 1786 (NMM 4897, purchase funds gift of Margaret Ann and Hubert H. Everist, Sioux City, Iowa, 1990) represents a fascinating local tradition. In the middle of the eighteenth century in the Toggenburg Valley of northeastern Switzerland, Wendelin Looßer (1720-1790) began to make organs. Although documents concerning Looßer had previously referred to him as a cabinetmaker, the quality of his work indicates that he had received professional training as an organ builder, and he passed this art on to his son Josef (1749-1822). Josef Looßer, who held several local offices, including that of bailiff, made at least one 18-rank church organ, but he, like his father, was mainly a prolific builder of house organs. With cases painted in the charming traditional Toggenburg style - which serves to distinguish these instruments from the similar organs made not far away in the Appenzell Valley - these could have as few as two stops, but they usually conformed to a standard five-stop disposition. The Museum's example, one of the very few Toggenburg organs outside of Switzerland, where they are deemed national treasures, is an exceptionally large model, having a 4' Principal in addition to the standard five stops. The disposition is:

Copel	8'	(stopped wood)
Principal	4'	(metal, A# to e2 in the façade; wooden pipes in the bass)
Flöten	4'	(open wood; C to b stopped)
Octav	2'	(metal, with wooden pipes in the bass)
Quint	1½'	(metal, with wooden pipes in the bass)
Subterocdav	1'	(metal, with wooden pipes in the bass)

The compass is C to c³ (49 notes). An old photograph shows a similar six-stop instrument in a bedroom in the large house where Josef Looßer had lived. Mid-nineteenth-century manuscript music books from the region suggest what was played on these house organs: psalms, chorales, and sacred songs, as one might expect, but also dances and arrangements of operatic airs.

The organ made in 1808 by **Christian Dieffenbach** of Bethel Township, Berks County, Pennsylvania (NMM 4905, Arne B. & Jeanne F. Larson Fund and J. Laiten Weed Estate, 1990), is a monument of early American craftsmanship and musical culture. While a relatively large number of eighteenth- and early-nineteenth-century Pennsylvania-German organs have survived in churches and local historical museums, the Dieffenbach organ at the National Music Museum is the only example from this important tradition in a major public collection of musical instruments. It is also one of the best preserved.

Among Pennsylvania-German organ builders, the Dieffenbach family was second only to David Tannenberg (1728-1804) in productivity. John Jacob Dieffenbach (1744-1803) was a wheelwright who began to build organs during the final decades of the eighteenth century. How he learned the craft is not known, but it is likely that he knew Tannenberg himself or, at least, closely examined his instruments. The case of the Museum's organ, made by John Jacob Dieffenbach's son, Christian (1769-1829), is quite similar to Tannenberg's standard design, the main differences being that the outer towers are triangular rather than round and that the pipe mouths are in a straight row. Dieffenbach organs were

generally made for Reformed and Lutheran congregations. In many towns these two denominations shared the same church building, as in Orwigsburg, where Zion Lutheran and Reformed Church was the original site of the Museum's instrument.

This one-manual organ, with compass C to d³ (51 notes), has a typical Dieffenbach stoplist, here written in the unusual order in which the six ranks of pipes stand on the wind chest, from front to back:

Principal	4' (metal, bass and tenor pipes in façade)
Quint	3' (metal, bass pipes in façade)
Salicet	4' (metal)
Gedackt	8' (stopped wood pipes)
Flöte	4' (open wood pipes)
Octave	2' (metal)

The Gedackt, Principal, Quint, and Octave constitute a full and brilliant Principal chorus, suitable for leading a congregation in the singing of Lutheran chorales or Reformed psalms. The prominent position of the Quint stop largely compensates for the absence of the mixture stop normally found in central-German church organs, from which tradition the Pennsylvania school stemmed. A Dieffenbach peculiarity, found in most of this family's instruments, is the provision of several stops at 4' pitch, rather than at the usual 8' pitch of soft color stops in the central-German and Pennsylvania-German traditions.

In 1884, Thomas Dieffenbach (1821-1900), grandson of the original builder, installed the 1808 organ in Zion Church's new sanctuary. He added two new 8' stops (Open Diapason and Dulciana) and a pedalboard with a 16' stop. Also added at this time was the rich Victorian decoration of the front pipes, probably painted by Thomas's nephew, Jacob Dieffenbach (1848-1922). When Christian Dieffenbach originally made them, the surfaces of the front pipes were plain polished tin.

In 1941, the Zion congregation purchased a new factory-made organ, and the Dieffenbach organ was placed in storage. Eventually, it was acquired by Thomas Eader of Ellicott City, Maryland, after whose death it was purchased by the Museum in 1990. Upon its restoration in 1990-1991 by Interim Conservator Rodger Kelly (with the advice of Raymond J. Brunner), Thomas Dieffenbach's additions to the stoplist were removed. (The pipes and pedal action are preserved in a Museum study-storage area.) Subsequent reexamination of the six ranks of pipes remaining in the instrument establish that they are indeed Christian Dieffenbach's work, with some minor alterations by Thomas. The scalings (width measurements) of the Gedackt and Salicet pipes conform exactly to those recorded in a notebook written in 1816 by Christian's son, David (1798-1872).

An interesting discovery was made while the instrument was being tuned after its installation in the Museum's Abell Gallery. Thomas Dieffenbach used newspaper for shims when he installed some tuning slides in 1884. These, printed in Pennsylvania in the 1880s, were in German, a language that Thomas Dieffenbach, whose great-great-great-grandparents had emigrated from Germany in 1709, evidently still read.

A recent acquisition, the organ by **David Dutton**, Mount Vernon, New Hampshire, about 1850 (NMM 10778, gift of W. Thomas Edwards in memory of Stephen E. Long, Seattle, Washington, 2004) is today heard for the first time in public. Today, Dutton is primarily known for his clocks, made with wooden gears, and this, his only known organ, shows the same precise craftsmanship of a clockmaker. He was one of several New Hampshire organ builders in this period who made chamber organs in the conservative English style that had been predominant in New England since the colonial days. The compass of slightly more than five octaves, begins, as was common in England, on low GG and (with dummy GG# key) ascends to a³. The disposition, with the names as engraved on the six stop knobs indicated by *italics*, is:

Stopped Diapason 8', on permanently, GG to F#
Stop Diapason 8', G to f# (open from c to f#)
Open *Diapason* 8', g to a³
Dulciana 8', g to a³
Principal 4' bass, G to f#
Principal 4' treble, g to a³
Stopped *Flute* 4', g to a³

Unlike the stops in most organs, the knobs here are pushed *in*, not pulled out, to sound. The left pedal controls swells shutters, while the right pedal is to pump the bellows.

The final word of the maker's inscription on the nameboard, *D. Dutton / M^t Vernon, N.H. / Patent*, refers to U.S. Patent no. 5,520, issued to David Boardman of Mount Vernon, N.H., on April 18, 1848. In this instrument Dutton applied Boardman's invention of "placing a partition of coarse cotton cloth" in the foot of each pipe. "By means of the partition of cloth the air is divided into a great number of small streams before it rushes out of the education passage By such division or by some other cause not known the tone of the pipe is very highly improved." Otherwise, the pipes, all of wood, are traditional in construction and very conservative in their voicing on low wind pressure, with no nicking of the windway.

Jayson Dobney is Associate Director and Curator of Percussion at the National Music Museum. In 2004 he earned a Master of Music degree with an emphasis in the history of musical instruments from The University of South Dakota. In 2003-2004 he was a Fellow in the Department of Musical Instruments at The Metropolitan Museum of Art in New York. He has served as a percussionist in both the Sioux City Symphony Orchestra and the South Dakota Symphony. He currently serves as full-time organist and director of music at the First United Methodist Church in Vermillion.

Friday morning, May 19, 11:00-11:30 – Concert Hall

Susanne Skyrn,
The University of South Dakota,
playing the Museum's grand piano by
Manuel Antunes, Lisbon, 1767

Recercata and Sonata in A from <i>Obras para clavicordio o piano forte</i>	Sebastian de Albero (1722-1756)
Sonata in C minor	Carlos Seixas (1704-1742)
Toccatà in G Minor	João de Sousa Carvalho (1745-1798)
Allegro in D	Carvalho
Allegro in D	Padre Manuel de Sostoa (c.1749-after 1802)
Sonata in e minor Sonata in E Major from <i>Treinta Sonatas para clavicordio</i>	Albero

Susanne Skyrn is an active performer on fortepiano and modern piano. Her recording *Treasures of Iberian Keyboard Music on the Antunes 1767 Fortepiano* is on the Music & Arts label. She is Professor of Music at The University of South Dakota, where she teaches studio piano, class piano, and piano literature. She was recently named the College of Fine Arts first Knutson Distinguished Professor.

About the instrument:

This piano (NMM 5055, Rawlins Fund, 1990) is signed on the top key lever, *Antunes 1767*. The maker was undoubtedly Manuel Antunes of Lisbon, who in 1760 had obtained the exclusive right to make “harpsichords with hammers” in Portugal for a period of ten years. (Manuel might have been assisted by his brother Joachim José.) In design and construction, the instrument strongly resembles harpsichords made by members of the Antunes family, while the action is nearly identical to that in the earliest extant pianos, made by Bartolomeo Cristofori in Florence in the 1720s. Being among the dozen earliest extant grand pianos, the Antunes, which is in an almost miraculous state of preservation, is one of the most precious documents of the first stages of historical piano making. The robustly constructed instrument, which in every detail displays its maker’s uncommonly fine craftsmanship, is scaled for brass strings throughout the compass of C to d³ (51 notes). As in Cristofori’s pianos, the hammers are covered with a soft, thick leather that elicits a comparatively soft, mellow timbre quite unlike that of quill-plucked harpsichord strings or the typical bright tone of pianos made later in the eighteenth century. There are no pedals, knee levers, or stops, but the una corda effect is available by shoving the entire keyboard and action to the left by hand. Superbly veneered with Brazilian tulipwood on the interior and painted dark green on the exterior (with some additional floral and foliate decoration of later date), the piano rests on typical Iberian trestles with inverted-heart cutouts.

Friday afternoon, May 19, 1:30-2:10 – Concert Hall

Gerhard Doderer
Universidade Nova de Lisboa
and
Cremilde Rosado Fernandes
Lisbon, Portugal
“How Portuguese Harpsichord and Pianoforte Building Recovered
after the Lisbon Earthquake of 1755”

During the second quarter of the eighteenth century Lisbon must be considered as one of the places where the Cristofori pianoforte had the most striking impact in terms of construction and composition. The 1755 earthquake hit very hard the Portuguese capital where the national school harpsichord and pianoforte building had been concentrated. After a temporary standstill, a new market for string keyboard instruments arose and, unsurprisingly, original ideas and enhanced activity appeared in the 1760s and 1770s in the large community of stringed-keyboard instruments builders. Among these the Antunes family and the German Mathias Bostem were the main figures of a genuine national building tradition. Surviving instruments and the only two eighteenth-century Portuguese printed sources of stringed-keyboard music (by Battista and Gomes da Silva, both about 1770) show clearly the pre-eminence of the pianoforte. The situation became unstable after the abolishment of the royal privileges for commercial activities in stringed-keyboard instrument making and the subsequent increase of French and British imports beginning in the early 1780s.

This paper will be illustrated by extracts of sonatas by Seixas, Battista, and Gomes da Silva played on the NMM's two Portuguese instruments of this period, the Antunes piano of 1767 (described above) and the José Calisto harpsichord of 1780 (described below).

Cremilde Rosado Fernandes, the Portuguese harpsichordist living in Lisbon, has given many performances in European and non-European countries, where her programs have paid special attention to Iberian music of the sixteenth, seventeenth, and eighteenth centuries. From 1976 to 1981 she directed the class of Historic String Keyboard Instruments at the Hermann-Zilcher-Conservatory in Würzburg, Germany. At present she teaches at Lisbon's Escola Superior de Música, where she has been the Principal since 2002. C. R. Fernandes is frequently called upon to lead courses and seminars dedicated to the sixteenth-, seventeenth, and eighteenth-century keyboard music both in Portugal and abroad. She has made many recordings for German, Portuguese, Spanish, and French companies.

Gerhard Doderer, a German-Portuguese musicologist and organist is currently Professor at the Music Department of the Universidade Nova de Lisboa. His numerous publications, organ recitals, and lectures in the field of musicology, which he has given in both European and non-European countries, have specially covered Iberian music of the sixteenth to eighteenth centuries. As a soloist he recorded several compact discs using exclusively historic Portuguese organs. Among his major publications, his studies about Domenico Scarlatti, the history of Lusitanian music in the epoch of King John V, and eighteenth-century Portuguese stringed-keyboard instruments deserve special attention.

Friday afternoon, May 19, 2:10-2:45 – Concert Hall

Michael Latcham

Gemeentemuseum, The Hague, The Netherlands

“Conservation and Compromise in Practice: Two Instruments of 1777,
a Piano-Harpsichord by J.A. Stein and a Harpsichord-Piano-Organ by Taddeus Tornel”

A museum has on its agenda the conservation of the objects in its care and the exhibition of those objects. In my view, conservation is primary. It may be said that in the case of a musical instrument, the sound of that instrument must be conserved and that therefore the instrument should be maintained in playable condition. It is easy to continue the ensuing discussion which inevitably results from such a notion. Often, this discussion is conducted at the level of generality, giving rise for instance to papers with titles like “To Play or to Preserve.” Such discussions often result in a dangerous polarization such that one party demands that playability is essential while the other demands conservation as standing in the way of the use of the musical instrument for the purpose for which it was originally designed - to make sound. The result can be that a new curator, wanting to present the sounds of the instruments in his care to the public, will throw overboard the opinion of the recalcitrant conservator who wants to protect the same instruments. While such polarization rarely takes the form of open antagonism, there are various museums in which at least a tendency to polarize is present today.

Like many others, I believe that each instrument has to be considered separately and that compromises have to be made. I would like to present two instruments, both combined harpsichord-pianos of 1777, with which I have been involved in the recent past. The first is the *vis-à-vis* piano-harpsichord by Johann Andreas Stein, in the Accademia Filarmonica of Verona. Careful consideration showed that the restoration of this instrument back to playing condition would hardly threaten its conservation at all. The combined harpsichord-piano-organ by Taddeus Tornel in Murcia, in practically every respect still in original, if dilapidated, state could, in my opinion, never be restored to playing condition without a serious loss of information. The Stein instrument was restored to playing condition, the Tornel instrument was carefully cleaned and documented.

Michael Latcham studied Philosophy, Linguistics, and Anthropology at Edinburgh University and harpsichord at the Amsterdam Conservatory. After some years of teaching, building and restoring he became Curator of Musical Instruments at the Gemeentemuseum in The Hague. His doctorate, also from Edinburgh, is on early pianos. He is known for his articles on keyboard instruments.

Friday afternoon, May 19, 3:05-3:35 – Pardee Lab

Renato Meucci
University of Milan and Conservatorio of Novara, Italy
“Andrea Amati and the Birth of the Violin”

An exhibition recently held in Cremona provided an opportunity for reexamining our notions about the origin of the violin. On the one hand, David D. Boyden’s views on the forerunners of the new instrument (rebec, fiddle, *lira da braccio*) were definitely confirmed, while, on the other hand, many novelties emerged, especially in relation to major technical developments. The following topics were considered essential to the early history of the violin: a) invention of the arched bridge; b) construction of the body in separate pieces (many earlier instruments had soundboxes made in only one piece of wood); c) construction with glued ribs; d) experimentation with soundholes and their shape; e) adoption of an arched soundboard and back; f) devising of the soundpost, the element of dramatic novelty which, according to the fresh evidence exposed in the exhibition and in the respective catalog, marks the invention proper of the violin.

This complex elaboration would not have been carried out solely by Cremonese makers, other working places being Naples, Ferrara (above all), and possibly Mantua. In addition, a decisive role was probably carried out by Sephardic Jewish musicians/makers, immediately after their exile from Spain in 1492 and their massive presence in many northern Italian courts, at least until a disposition of Pope Paul IV (1555) forbade them many activities.

The output of the first documented Cremonese violin maker, Andrea Amati (c. p1505 - 1577), of whom four instruments (small violin, large violin, viola, and cello) are preserved at the NMM, will be discussed both in view of his role in the development of the instrument and his possible supply and relationship to the French royal court.

Renato Meucci is a faculty member of both the University of Milan (I), Music Department (History of Musical Instruments), and the Conservatorio of Novara (History of Music). His main field of interest is organology as a discipline. He is the author of numerous publications on the history of musical instruments, archaeology, iconography, ethnomusicology, orchestration, and music production in the eighteenth and nineteenth centuries. In addition, since 1994 he has been the Chairman of Fondazione Italiana per la Musica Antica, the institution founded in 1969 for supporting the early music revival in Italy. In 2003 the Historic Brass Society has recognized him with the “Christopher Monk Award” for his studies on brass instruments.

Friday afternoon, May 19, 3:35-4:05

Benjamin Hebbert
St Cross College, Oxford, and The Metropolitan Museum of Art, New York
“Geometry as a Social Biography: Investigating the Background of Viol Design”

The viol and violin families are normally considered to have evolved from a common root, so that their design is in the most part similar. However, this is not the case: whereas the dimensions of the violin family standardized sometime in the middle of the sixteenth century, an important but overlooked aspect of viol making is that only the proportions became standardized. Instruments may have been made with dimensions tailored to the size of the player, and for this reason they exist in many congruent sizes. It follows that each viol had to be set out according to a set of simple geometrical principals. By analyzing more than fifty English viols it is possible to understand how these principals arose, and how they evolved between about 1580 and 1725. Combining these rules of construction with historical information about the culture of musical instrument making we may be able to make inferences that are pertinent to our analysis of the seventeenth-century instrument maker. Moreover, by extending our analysis to early Italian, and later French instruments, we are able to show how ideas transferred between schools of makers.

Benjamin Hebbert's chief interest is in early stringed instrument makers, and he is currently pursuing doctoral study at St Cross College, Oxford University, with a studentship from the Arts and Humanities Research Council. His thesis is *The London Music Trade c.1645-1725*, a social, economic, and political history of the development of music shops and instrument making as a commercial enterprise. He also holds a Coleman Fellowship in Art History at the Metropolitan Museum of Art for 2005-2006, and is an honorary research fellow at London Metropolitan University.

Friday afternoon, May 19, 4:15-4:45 – Pardee Lab

Jenny Nex
Royal College of Music and Goldsmiths College, London, England
“Women in the Musical Instrument Trade in London, 1750-1810”

In the 1960s, historians began to perceive “the conspicuous absence of women from the historical record.” The only women mentioned in history books were either of noble birth or were at the boundaries of society and were often only referred to as a consequence of their relationship with an important man. Women positioned between these extremes were largely disregarded. Since then, however, research has been undertaken to redress the balance and to ascertain the involvement of women in work, the family, and society in general. Musical instrument historians have yet to begin this process, largely because very few instruments signed by women survive, giving the impression that they were absent from the instrument building trade.

Although instrument building in eighteenth-century Europe is justifiably recognised as having been male-dominated, it is interesting to explore the contributions made by women. Whereas a few, including the Viennese piano builder Nannette Streicher (1769-1833), were active as makers themselves, others worked in supporting roles, such as managing the accounts and running the household. When the home and workplace coincided, it was possible for women to undertake a dual role relating to both family and business. Many of the women who do become visible are male instrument makers’ widows, who carried on the family firm following the demise of their spouse.

his paper explores the surviving evidence concerning women working in musical instrument building firms in London between 1750 and 1810. By drawing on materials from a variety of archival sources, glimpses of their lives and working activities may be seen. This process also helps to understand the structures and working practices of musical instrument making firms in general.

Jenny Nex, after her early education in Cambridge, studied music at the University of Edinburgh from where she went on to specialize as a singer of early music at the Guildhall School of Music and Drama. She gained her MA in Museum and Gallery Management in 1997 and in August 2005 took over as Curator of the Museum at the Royal College of Music. Her research interests include the design and construction of historical keyboard instruments, and she is working towards a PhD in the Sociology department of Goldsmiths College, studying the lives and businesses of instrument makers in London, 1750–1810. Jenny continues to sing whenever possible and recent concert performances include Handel’s *Saul*, Mozart’s *Exsultate Jubilate*, and J.S. Bach’s Cantata BWV 51, *Jauchzet Gott in allen Landen*.

Friday afternoon, May 19, 4:45-5:15 – Pardee Lab

Gabriele Rossi-Rognoni
Conservatorio Cherubini, Florence, Italy
“The ‘New Early-Instrument’ Market in the Time of Leopoldo Franciolini”

This paper presents the situation of the antiquarian market in musical instruments from Florence, especially toward Germany and the USA, around the time of activity of Leopoldo Franciolini. The situation is much more complex than usually considered, since there were several dealers active with musical instruments and some of them applied procedures similar to the ones generally attributed to Franciolini. This study aims at presenting the situation in a wider cultural and commercial context and to reconstruct in greater detail the historical aspects of the production of “new early instruments.”

Gabriele Rossi-Rognoni is Curator of the Musical Instrument Museum of the Galleria dell’Accademia in Florence. He teaches the History of Musical Instruments at Florence State University and Florence State Conservatory of Music. His main studies are centered on the musical instrument making tradition in Renaissance and Baroque Tuscany and on the innovation and trade of musical instruments in Italy in the nineteenth century. In 2002 he was an Andrew W. Mellon Fellow at The Metropolitan Museum of Art, New York, with a project on the nineteenth-century trade in musical instruments between Italy and the USA.

Friday evening, May 19, 8:00 – Concert Hall

Concert

“Italian Baroque Splendor: Its Echoes in Portuguese and Brazilian Colonial Musical Style”

Lanzelotte/Galhano Duo

“A due canti”

Clea Galhano, St. Paul, Minnesota,

recorder

and

Rosana Lanzelotte, Rio de Janeiro, Brazil,

playing the Museum’s harpsichord by José Calisto, Portugal, 1780

Sonata I	Francesco Mancini (1672-1737)
Amoroso	
Allegro	
Largo	
Allegro	
Sonata, K. 56	Domenico Scarlatti (1685 - 1757)
Sonata, K. 141	
Ciaccona in G Minor	Tommaso Antonio Vitali (1663 - 1745)
Intermission	
Sinfonia in F Major	Carlos Seixas (1704 - 1742)
Allegro	
Adagio	
Andantino	
Minuet	
Sonata in D Major [Allegro]	Pedro Antonio Avondano (1714 - 1782)
Landum das Beatas	Joze Constantino Vallucci (c. 1800)
Landum	Anonymous, recovered by Spix and Martius, 1817-1820
Modinha da Moça de Antes (1994)	Edmundo Villani Cortes (1930-)
Suite (1976)	Edmundo Villani Cortes
Prelude	
Toada	
Choro	
Cantiga de Ninar	
Baião	

The performers – Lanzelotte/Galhano Duo – “A due canti”:

Two Italian/Brazilians, two musicians, a chance meeting. Clea Galhano, who has lived in the USA since 1992, performed a recorder and harpsichord concert for a school assembly one afternoon. After the performance, a little girl told her that her aunt in Brazil played the harpsichord. Ana Paula, the little girl, was Rosana Lanzillotte’s niece. Shortly thereafter, Lanzelotte and Galhano met. Their common nationality and solid musical education from the Royal Conservatory of The Hague, Holland, brought them even closer together. The result of this shared background and chance meeting was the Lanzelotte/Galhano Duo.

The Duo’s first concert was in St. Paul, Minnesota in 1995. This performance revealed the artists’ strong musical bond and resulted in the formation of a permanent partnership. Since then, the Duo has performed in Brazil, Rome, and at the prestigious Wigmore Hall in London, always receiving acclaimed reviews.

The Lanzelotte/Galhano Duo’s repertoire includes favorite pieces from the Italian, French, and German Baroque periods. The Duo also emphasizes its heritage by performing contemporary music with popular Brazilian rhythms. The Duo is planning to release a Brazilian music CD in 2007.

Rosana Lanzelotte, considered one of the best Brazilian harpsichord players, has played in important halls throughout her country as well as in Europe, including recitals at the Wigmore Hall and St. Martin-in-the-Fields (London), the Calouste Gulbenkian Foundation (Lisbon), and Palazzo Barberini (Rome). She has released four solo CDs, among which is the first recording on the harpsichord of *The Seven Last Words* by Haydn. Her CD *The Brazilian Harpsichord*, devoted to Brazilian music of the twentieth century, has been acclaimed as one of the five best of the year. She has just released the unknown sonatas by Avondano, recorded on the eighteenth-century Portuguese harpsichord by Calisto in the National Music Museum, for which she has received the Golden Diapason.

“Here is an artist completely attuned to the different styles of her chosen composers, completely confident and playing with composure backed by a superlative technique.”

Geoffrey Crankshaw, *Musical Opinion*, London

“... a first rate artist. She is a master of the keyboard and makes it sing with great refinement.”

J.J. Moraes, *Jornal da Tarde*, São Paulo

“The accuracy, precise way of playing, and the graciousness dominated the performance of a very attractive program.”

Georges Gallician, *Le Méridional*, Marseille.

Clea Galhano, an internationally renowned recorder player, is an accomplished performer of early, contemporary, and Brazilian music. She has performed in the United States, Canada, South America, and Europe as a chamber musician, collaborating with recorder player Marion Verbruggen, Belladonna, the Lanzelotte/Galhano Duo, and the Galhano/Montgomery Duo. As a featured soloist, Galhano has worked with the Saint Paul Chamber Orchestra conducted by Christopher Hogwood, Nicholas McGegan, and Emmanuelle Haim, and with the Lyra Baroque Orchestra and New World Symphony. Ms. Galhano has performed at the Boston Early Music Festival and the TAGE Alter Music Festival in Germany in addition to other important music festivals. She returns this fall to Wigmore Hall in London, where in 2004 she debuted to acclaimed reviews. Ms. Galhano will be featured this year in the Second International Recorder Congress in Leiden, Holland. She studied in Brazil, the Royal Conservatory (The Hague), and the New England Conservatory of Music in Boston, earning a Fulbright scholarship and support from the Dutch government. As an advocate of recorder music and educational initiatives, she

served for six years on the national board of the American Recorder Society. A popular teacher and ensemble director, Galhano regularly conducts workshops across the United States and Brazil. Currently, she serves on the faculty of the St. Paul Conservatory, Macalester College, and MacPhail Center for Music. She has recorded on the Dorian, Ten Thousand Lakes, and Eldorado labels, and is artist-in-residence at the prestigious Schubert Club in St. Paul, Minnesota.

“... Clea Galhano gave a splendid recital at the Wigmore Hall ... it was indeed a rare experience ... was played in excellent style ...”

Robert Matthew-Walker, *Musical Opinion*, London

“ ... The very highlight of the evening was created by Clea Galhano ... she made great music with smooth sound, intricate ornamentation and with obvious joy of playing ...”

Mittelbayerische, Regensburg, Germany

“The highlight of the program ... filling the hall with the haunting tone of the recorder, Galhano proved that sometimes simple beauty can be more moving than a 100-piece orchestra ...”

Pittsburgh Post Gazette, Pittsburgh, Pennsylvania

About the instrument:

The harpsichord by José Calisto, Portugal, 1780 (NMM 6204, Rawlins Fund, 1999), is an extraordinarily rare example of Iberian harpsichord making, unique in North America. Although nothing is known about Calisto, the design and workmanship of this instrument, his only known work, are particularly fine. The instrument is typical of eighteenth-century Portuguese harpsichords in having a single manual and two 8' registers. One of the 8' registers in this instrument is fixed in the “on” position; its tone can be altered by a buff stop. The compass is GG-g³ (61 notes). The plain green exterior, tropical-wood veneered interior (principally tulipwood, imported from Brazil, then a colony of Portugal), and trestles with inverted-heart cutouts are typical Portuguese decorative features.

Saturday morning, May 20, 9:00-9:30 – Pardee Lab

Matthew Hill
University of Edinburgh, Scotland
“George Breed and His Electrified Guitar of 1890”

The electrification of musical instruments is almost certainly the most important organological innovation of the last hundred years, and 2006 marks the seventy-fifth anniversary of the first commercially produced electric guitar. However, prior to that, in 1890, George Breed of the United States Navy patented a design for an electrified guitar which predates any other documented American electrical musical instrument. Like the modern electric guitar and other similar instruments, Breed’s patent was based on a vibrating string in an electromagnetic field, but his design worked on very different electrical and musical principles, resulting in a guitar with an exceptionally unusual sound and unconventional playing technique. As an instrument maker/designer, Breed is now almost completely unknown, the significance of this instrument has remained unappreciated, and the circuitry involved has been misinterpreted. In addition to discussing the patent itself, this paper will look at the issues surrounding Breed’s design and examine possible reasons why it was never brought to market. It is hoped to present the first ever reconstruction of Breed’s guitar to demonstrate the musical capabilities (and idiosyncrasies) of this instrument.

Matthew Hill is a native of Los Angeles who has been resident in Scotland since 1994. In addition to academic pursuits, he has had a musical life as a performer and a composer. In 2005, he completed his Master’s degree in organology at the University of Edinburgh on the subject of the Bond Electraglide guitar. He is currently working there under Darryl Martin and Arnold Myers on his PhD on the development of early electric stringed instruments.

Saturday morning, May 20, 9:30-10:00 – Pardee Lab

John Koster
National Music Museum, The University of South Dakota
“An Introduction to the Choralcelo”

Just a few weeks ago, the National Music Museum received two choralcelos, along with additional components and an extensive archive. Each instrument consists of about a dozen major components, many of them about the size of an upright piano. Although detailed study of this massive amount of material has hardly begun, some representative units are on display.

The choralcelo – pronounced *chorale* (as in “Bach chorale”) *sello* – an electromechanical keyboard instrument, was invented by Melvin L. Severy and George B. Sinclair, who applied for their initial U.S. patent for it in 1900. Many more patents to cover various improvements and new ideas followed over the next two decades. The basic idea was to break current into pulses tuned to every needed pitch by means of an “interrupter” in which brushes come into contact with alternating strips of conducting and non-conducting materials on rotating drums or disks. Pulses at the appropriate pitches were directed to electromagnets in proximity to strings in the piano-like console unit. The instrument could be played with a conventional upright piano action, in which case the magnets caused the sound to sustain, or it could be sounded by electricity alone. There were public demonstrations of the instrument in Boston and New York as early as 1907. After major infusions of capital, the Choralcelo Company began to produce the instrument commercially in its Boston factory in 1914. The console unit was now supplemented by several remote units, in which the magnets induced vibrations in bars of steel, aluminum, or wood, provided with resonating tubes. Auxiliary units were also made with piano strings and steel ribbons, and stops were provided for sounding the upper partials. Billed the “Celestial Choir” in advertising materials, the choralcelo, met with considerable success: about a hundred were produced between 1914 and 1917. They were installed in private residences, theaters, churches, and even on a yacht! Production ceased in 1917 when materials became difficult to obtain during the W.W. I and the company president, Wilber Farrington, was unwilling to convert production for war contracts.

The choralcelo’s interrupter resembles the mechanisms of the earlier telharmonium and the later Hammond organ. This nearly forgotten instrument, something of a missing link in the history of electrical musical-instrument technology, was certainly more successful technically, artistically, and commercially than the better known telharmonium. Unlike the telharmonium, the last of which was scrapped in the 1960s, it still exists, thanks to the efforts of Frank Farrington, his wife Regene, “choralcelist extraordinaire,” who kept one operating into the 1940s, and our donor, C. Wade Jenkins, who saved the Farringtons’ own instrument and another one beside.

John Koster received his first musical training as a choirboy at the Choir School of St. Thomas Church in New York. After receiving the AB degree from Harvard College, where his teachers in musicology included Nino Pirrotta, John Ward, Gustav Leonhardt, and Anthony Newcomb, he was a harpsichord maker for many years in the Boston area. He also did much restoration and conservation work on early keyboard instruments, most notably at the Museum of Fine Arts, Boston. For his comprehensive catalogue of that Museum’s collection of keyboard instruments he received the AMIS’s Bessaraboff Prize. In 1990-91 He held an Andrew W. Mellon Fellowship at The Metropolitan Museum of Art in New York. Since 1991 he has been Conservator and Professor of Music at the National Music Museum, The University of South Dakota. He has served on the Boards and various committees of the AMIS and CIMCIM and was Program Chair for the 1996 AMIS meeting in Vermillion.

Saturday morning, May 20, 10:00-10:30 – Pardee Lab

Arian Sheets

National Music Museum, The University of South Dakota

“Lloyd Loar in Context: Early Electro-Acoustic Instruments of the Vivi-Tone Company”

Lloyd Loar was best known for his work at Gibson, where the famous Master Model Style 5 mandolins and guitars were introduced in 1922 and 1923. While these instruments are still revered among musicians, the electrically amplified instruments Loar developed after his tenure at Gibson are comparatively obscure. This paper will examine Loar's patents and surviving electric instruments within the context of preceding and contemporaneous technological developments, shedding light on what could be called an ambiguous aspect of his legacy.

Arian Sheets is Curator of Stringed Instruments at the National Music Museum and currently also enrolled at The University of South Dakota as a student in the Museum's program for the MM degree with concentration in the history of musical instruments. She received degrees in art history (seventeenth-century Dutch painting) and music performance (viola and viola da gamba) from Northwestern University. While living in the Chicago area, she performed with the Civic Orchestra, Chicago Opera Theater, Classical Arts Orchestra, and various chamber ensembles. Her current scholarly interests include commercially mass-produced violins, patents relating to bowed string instruments, and bowed instrument fittings.

Saturday morning, May 20, 10:45-11:15 – Pardee Lab

Zeynep Barut
Technical University, İstanbul, Turkey
“Music Instruments of the *Mehter*”

The *mehter*, with a history beginning in the eighth century BCE, is the oldest Turkish military music band. Although it was popular throughout the age of Ottoman Empire, it now has only historical and folkloric significance and today is played only in special performances. The wind and percussion instruments, cymbal and *cevgen* are the main groups of *mehter* instruments. The wind instruments of the *mehter* are the shrill pipe (*zurna*), horn, *mehter* whistle, clarinet, and *kerrenay*. The percussion instruments are the big drum (*kos*), kettle drum, small kettle drum, *tabilbaz*, and tambourine. These instruments evolved over time and in different parts of the world, including Central Asia, Anatolia, the Arabian Peninsula, Africa, and Europe. In this presentation, they will be introduced with vignettes of *mehter* music. The special meanings of *mehter* music in political and social life of its time and its influences on world music will also be discussed.

Zeynep Barut, a native of İstanbul, entered the violin department of the İstanbul Municipal Conservatory in 1968. There she had worked for long periods of time with Prof. Ayhan Turan and Mme.Lili Statzer. In 1979 she entered the State Conservatory of Turkish Music in İstanbul and graduated with an honors degree in 1984. In 1989, she completed her Master’s degree at the Institute of Social Sciences in İstanbul Technical University. She received her PhD degree from the same institute in 1995. In the meantime, she had lectured on music theory and Turkish music lectures in the Fine Arts Department of Yıldız Technical University. As a participant of International İstanbul Festival she gave many concerts in collaboration with Bosphorus University with the goal of introducing and creating an appreciation of Turkish music. As an orchestral musician and soloist she has played with orchestras specifically designed to create a public appreciation of Turkish music. She has organized and participated in several symposia and conferences. Currently Dr. Barut continues her academic career in İstanbul Technical University, where she has been since 1985.

Saturday morning, May 20, 11:15-11:45 – Pardee Lab

Ioana Sherman
University of California, Riverside
“Transformation and Totalitarianism: the Case of the Romanian *Fluier* and *Caval*”

Research and documentation of the history of the *fluier* and *caval*, indigenous Romanian wind instruments, were accomplished during a Fulbright Fellowship in Romania in 2004-05. These instruments have contributed to the rich traditional music of the country for thousands of years. During the communist era, the state sponsored folkloric music to replace traditional folk music and dictated how the instruments should be played. Socialist ideologies changed the traditional function of the instruments, causing makers to produce modifications to their instruments in order to continue to be successful in the new atmosphere that the communist regime produced. Today, the instruments are striving to survive in the villages of Romania but are quickly becoming something of the past. This paper examines the *caval* and *fluier* before, during, and after communism, specifically examining how making the instruments has changed. This transformation will be look at through the maker Ion Costache, one of the most famous instrument makers in southern Romania, where the instruments thrived. The whole process of how Ion Costache constructs the instruments has been documented, along with what adjustments he needed to make during and after communism in order for him to continue to be a successful vendor.

Ioana Sherman earned a Bachelor's of Music degree, *magna cum laude*, from the University of California, Riverside, in 2002. As an undergraduate, she received the Arts Bridge Fellowship for three consecutive terms for teaching music appreciation and recorder in inner-city schools. She also taught private piano, saxophone, and clarinet lessons. In 2003, she began her Master's degree in musicology at the University of California, Riverside. She was a Gluck Fellow for two consecutive terms, presenting lectures and workshops on Romanian music to grades 1-5. In 2004, she was awarded a William J. Fulbright Fellowship in ethnomusicology to do research in Romania for her Master's degree. While in Romania, she researched the *caval* and *fluier* using both musicological and ethnomusicological methods. Ms Sherman received her Master's degree in December 2005 and will soon begin doctoral studies in musicology at the University of North Carolina.

Saturday morning/afternoon, May 20, 11:45-12:15 – Pardee Lab

Arle Lommel

Indiana University, Bloomington

“The Hungarian Hurdy-Gurdy in the Nineteenth and Twentieth Centuries: Revival and Change”

Hurdy-gurdies are relatively well-known in their current French form, but hurdy-gurdies from other regions of Europe are still relatively unknown in musicological circles. This presentation examines the history and development of the *tekerőlant* (Hungarian hurdy-gurdy) in the nineteenth and twentieth centuries. Most likely introduced into Hungary by itinerant workers from Austria in the nineteenth century, the instrument was played only in two small regions of Hungary and had essentially died out by the 1930s. Beginning in the 1960s, a new wave of scholars and musicians sought out the last remaining players in the southern lowlands region of Hungary, many of whom had not played the instrument in decades. A number of makers began producing high-quality instruments based on surviving examples and the *tekerőlant* entered a new phase of its existence: playing techniques were rediscovered and refined, and the instrument took a prominent place in Hungarian “village music” groups that sought to revive traditional performance practices. When the Hungarian folk revival brought the instrument into new prominence, it also radically recontextualized the performance practices surrounding the instrument by introducing it into new ensembles and social circles and by creating a new pan-Hungarian repertoire in place of the regional repertoire that had previously characterized *tekerőlant* performance.

This presentation highlights the technical features of the instrument (which are quite different from French examples) and examines the history and politics of revival of the *tekerőlant*. The instrument went from obscure and unknown (even to most Hungarian musicologists) before the First World War to occupy a prominent place in Hungarian folk music performance. The number of players went from less than ten in the 1960s to perhaps three hundred by the year 2000 (including many outside of Hungary) and this instrument is now seen as distinctly Hungarian (rather than regional or “foreign”). The *tekerőlant* is useful as an example to show the ways in which “traditional” musical instruments and practice can be recontextualized and adapted to thrive in environments other than those in which they originally existed, while still maintaining a connection to the past.

Arle R. Lommel is a doctoral student in Folklore and Ethnomusicology at Indiana University, Bloomington. His work has focused on the Hungarian hurdy-gurdy (*tekerőlant*) and bagpipe (*duda*), and he has recently completed the translation from Hungarian to English of the first major work on the *tekerőlant* in Hungarian, which will be published in Budapest in early 2006. His focus is on the material culture aspects of musical instruments, the ways in which instruments exist within, and are productive of, a cultural context.

Saturday afternoon, May 20, 2:15-3:00 – Pardee Lab

Sabine K. Klaus
National Music Museum, The University of South Dakota
and
Robert Pyle
S.E. Shires Co., Hopedale, Mass.
“A Safe Way to Analyze the Playing Qualities of Brass Music Instruments –
Demonstration of the *Brass Instrument Analysis System (BIAS)*”

For well over a decade now an ideal tool for acoustical analysis of brass musical instruments has been around: BIAS (Brass Instrument Analysis System), developed by the *Institut für Wiener Klangstil* under the leadership of Gregor Widholm in Vienna. This system is perfect for museum use. The pitch, intonation, and playing qualities of an instrument can be tested without playing it, thereby avoiding the usual risks of damage through accumulation of moisture or other playing-related stress factors. The mouthpiece of a brass instrument is firmly connected to an apparatus that sends a multi-sinusoidal tone into the instrument. The response is then measured in the mouthpiece, and within seconds the instrument's acoustical behavior is displayed on a computer screen as an impedance diagram. BIAS measurements illustrate the playing qualities of the present condition of an instrument and may reveal damage to the tubing, such as tiny leaks or dents, not obvious by visual inspection. In this lecture-demonstration we will measure some representative brass instruments in the collections of the National Music Museum, explain the nature of acoustical impedance, and interpret the results.

Sabine K. Klaus received her PhD from Tübingen University, Germany, with a dissertation on the history of stringed keyboard instruments. She has also worked intensively with brass instruments, serving as Joe R. and Joella F. Utley Curator of Brass Instruments at the National Music Museum, The University of South Dakota, since 1999.

Robert Pyle is the acoustics engineer for the S.E. Shires Co., a manufacturer of trombones. He has been interested in the acoustics of musical instruments since he was a teenager. He is an enthusiastic (but definitely amateur) performer on the French horn.

Saturday afternoon, May 20, 3:00-3:45 – Pardee Lab

Micha Beuting
Hamburg, Germany

“An Introduction to Dendrochronology as Applied to Musical Instruments”

The biological study of dendrochronology is used to determine the age of wooden objects by the wood's tree-ring structure. It was introduced to the research of stringed, plucked, and keyboard instruments in the early 1980s and has been generally applied in the study of historical musical instruments ever since. This presentation consists of three parts:

1) The biological basics of the method; the material used; the important influences on tree growth; the procedures of measuring and analyzing data; and an overview of the history of dendrochronology with a focus on the dendrochronology of musical instruments, especially the work done at the University of Hamburg and by the author. The building of the master chronologies used for dating will be explained and the content and structure of an expert's report will be shown.

2) Examples of dendrochronological datings will be given, and results for some prominent instruments of various violin makers will be discussed in depth. Additionally, the potential of dendrochronological results for organological research will be introduced. In this connection, the storage time of the wood, the regionalization, and the origins of wood from the same tree will be discussed, with emphasis on criteria for the latter.

3) A summary of current and future projects, with ideas for the future.

Micha Beuting, after apprenticeship as a joiner at the Municipal Theater in his native city of Heilbronn, studied wood science and technology at the University of Hamburg, a leading center for the dating of works of art and other artifacts by dendrochronological methods. His diploma thesis, *Holzbiologische und dendrochronologische Untersuchungen an Tasteninstrumenten* (biological and dendrochronological studies of keyboard instruments) was followed in 2003 by his PhD thesis, *Holzkundliche und dendrochronologische Untersuchungen an Resonanzholz als Beitrag zur Organologie* (wood-scientific and dendrochronological studies of tone wood as a contribution to organology), which was supported by a fellowship from the Konrad Adenauer Foundation. Dr. Beuting has examined and applied his expertise to musical instruments in many major European museums.

Saturday afternoon, May 20, 4:00-4:30 – Pardee Lab

Ilya Tëmkin
New York University & the American Museum of Natural History
“Phylogenetics and the Evolution of Musical Instruments:
the Logic and Limits of Phyloorganology”

Musical instruments change over time – some fall out of use, new ones are invented; still others become modified, often to the extent that their forerunners can no longer be determined with certainty. Tracing the intricate history of musical instruments, especially of ancient cultures and oral folk traditions, becomes an extremely complicated task. Even most thoroughly documented accounts of development of modern and popular instruments are rarely unequivocal because on the most part they rely on the secondary oral or written sources. The loss of information is a general attribute of historical sciences. Can anything be done in face of a disheartening paucity of a written record?

Cladistics is a formal method of classification that groups entities hierarchically into nested sets based on their intrinsic characteristics. The principles of the approach are shared by several historical disciplines including linguistics, biological systematics, and stemmatics, where the degree of relatedness is interpreted as a historical pattern. Recently, this methodology has been applied to questions of material cultural evolution, including musical instruments. Obviously, the application of cladistic methodology to questions of musical instrument evolution requires justification and cannot be used effectively without taking into account the nature of the system being analyzed. An attempt to use cladistic analysis to reconstruct the history of two instruments – the stringed Baltic psaltery and the brasswind cornet – has revealed that the method performs well only when certain criteria are satisfied *a priori*, limiting its application to special cases where a strong cultural transmission is present. In other cases, the results of the analysis were not readily interpretable but could be substantially improved by correcting for culture-specific mechanisms of information transfer, and taking into account the dates of instrument manufacture. The importance of the present work stems from establishing a theoretical basis for using cladistic methodology to answer questions of historical organology (phyloorganology) and raising general questions of fundamental similarities and differences of information transfer in cultural and biological systems which can potentially result in developing novel and more reliable methodology.

This is a collaborative project with Niles Eldredge (American Museum of Natural History).

Ilya Tëmkin's principal interests are the history, performance, and construction of Russian traditional musical instruments, particularly stringed instruments such as the plucked *gusli* that he reconstructed after ethnographic museum specimens and archaeological finds. Ilya is a doctoral student in the field of evolutionary biology at the American Museum of Natural History in New York where he collaborates with Niles Eldredge on theoretical aspects of evolution of material culture as it is reflected in the history on the Baltic psaltery (*gusli* and related Finnic and Baltic instruments) and the brasswind cornets. Ilya's research and performance of Russian folk music is partially sponsored by the New York State Council on the Arts and CEC ArtsLink international program.

Saturday afternoon, May 20, 4:30-5:15 – Pardee Lab

Grant O'Brien
Edinburgh, Scotland
“The Statistical Analysis of Lateral String Spacing in Neapolitan
and Flemish Seventeenth-Century Harpsichords”

The way a maker marks out the lateral spacing of his strings is perhaps one of the most characteristic features of his work. Normally the strings are very regularly spaced and so an analysis of their spacing lends itself naturally to statistical methods giving a result of high accuracy and low error. Using the value of the lateral string spacing can, in turn, be used to establish the workshop unit of measurement used by a maker to a high degree of accuracy. Normally the unit of measurement used in a maker's shop is close to the unit of measurement used in the city or region in which he worked. But the high degree of accuracy of the determination of the unit of measurement using the statistical method enables the work of two or more makers working in the same city or region to be distinguished from one another. Indeed it is likely that the workshop unit of measurement determined in this way is even more characteristic of a maker's work than the moldings he used, which may have been 'bought in' by several different makers from a common supplier.

The lateral string spacing of instruments by Guarracino, Ruckers, and an anonymous Antwerp maker will be determined. The analysis of the lateral string spacing enables the new attribution of three more harpsichords to Guarracino's workshop. It will also be shown that the lateral string spacing can be used to distinguish the work of Ruckers from one of his close Antwerp contemporaries.

Grant O'Brien, leading authority on the harpsichords of the Ruckers family and prominent specialist in the history of early keyboard instruments in general, was born in Edmonton, Alberta, Canada. He studied at the University of Alberta, from which he received the degrees of BSc (Hons.) in physics and MSc in nuclear physics with his thesis, *The 2-2-0 Positron Decay State in Promethium 146*. After teaching physics for some years at the Northern Alberta Institute of Technology in Edmonton and at Fettes College in Edinburgh, Scotland, he settled permanently in Edinburgh in 1971 and worked for several years as a self-employed harpsichord maker and restorer. In 1974 he became Assistant Curator of the Russell Collection of Early Keyboard Instruments at the University of Edinburgh and served as its Curator/Director from 1983 until retiring in 2004. He received the degree of PhD in organology from the University of Edinburgh in 1983. For the book based on his thesis, *Ruckers: A Harpsichord and Virginal Building Tradition* (1990), the AMIS awarded O'Brien the 1993 Nicholas Bessaraboff Prize. In recent years he has turned his primary research interest to Italian stringed-keyboard instruments, with particular reference to the local units of measurement used in their design and construction. In 2000 the Galpin Society presented him with its Anthony Baines Memorial Prize, and he received the AMIS's Curt Sachs Award in 2005.

Saturday afternoon/evening, May 20, 4:00-8:00

Native American Tipi Village and Cultural Exhibition

with

Drumming, Singing, and Dancing

Master of Ceremonies: Dr. Wayne H. Evans, EdD

Performing Drum Group: Oyate Singers, Wasa Wakpa/Vermillion, S.D.

Native American dancers in various types of regalia will demonstrate different kinds of dances. The Master of Ceremonies will explain the meanings of songs and translate the Lakota texts of the songs. A tribal elder will be present at the tipis and dance to visit with and answer questions of guests regarding native culture.

* * * * *

Funding for this event and for other expenses of the meeting has been provided by:



The Traditional South Dakota Pig Roast is underwritten by:



Saturday evening, May 20, 8:30 – Concert Hall

Recital
“Soler and Scarlatti in London”

Luisa Morales,
Almería, Spain,

playing the Museum’s harpsichord by Joseph Kirckman, London, 1798,
with
Cristóbal Salvador, dancer

Antonio Soler (1729-1784)

Sonata in D Major, R. 74, *Andante*
Sonata in D minor, R. 24, *Cantabile Andantino*
Sonata in G Major, R. 45, *Allegro*
Sonata in D Major, R. 84, *Allegro*
Sonata in F-sharp minor, R. 85, *Allegretto*
Sonata in D-flat Major, R. 88, *Allegro*
Sonata in the Dorian mode, R. 49

Mateo Albéniz (1755-1831)

Sonata in D Major (zapateado)

Anonymous, 1785

Fandango (SPD5, Convent of San Pedro de las Dueñas)

Intermission

Domenico Scarlatti (1685-1757)

Sonata in A Major, K. 429, *Allegro*
Sonata in A minor, K. 54, *Allegro*
Sonata in A Major, K. 24, *Presto*
Sonata in D Major, K. 443, *Allegro*

with the collaboration of Cristóbal Salvador, dancer:

Sonata in A Major K., 209, *Allegro* (Jota)
Sonata in D Major K., 491, *Allegro* (Bolero)
Sonata in B minor, K., 376, *Allegro* (Seguidillas boleras)
Sonata in E Major, K., 380, *Andante commodo* (Bolero)

This concert is presented under the sponsorship of the Spanish Embassy.



Soler and Scarlatti in London:

Did Domenico Scarlatti or Antonio Soler ever visit London? While history does not recall this with any certainty, the presence and impact of their music on that city is beyond debate. In fact, the sonatas of both composers were first published in London where their influence among music enthusiasts remains largely undiminished to this day.

Music publishing in eighteenth century Spain was a scarce commodity at best. Music of this era was commonly circulated either by means of manuscripts duplicated by professional copyists or it was copied by nuns and monks for use in their own convents and monasteries. Indeed, it is primarily in this format that the overwhelming majority of extant eighteenth-century Spanish keyboard music has survived until the present day. By contrast, composers wanting to see their work published were obliged to go abroad, and London was a location of choice for this purpose. The list of eighteenth-century Spanish masters who had their music published in London is a long and distinguished one. It includes, but is not limited to, the brothers José and Manuel Plà, Juan Oliver Astorga, Manuel Canales, José Herrando, Joaquín Nicolás Ximénez and Luigi Boccherini.

London in this era, however, represented more than a metropolis for Spanish musicians wishing to publicize their work by means of concerts and music publishing. Documents in the Spanish National Historic Archives attest to extensive trade relations between Spain and England flourishing in the last quarter of the eighteenth century. In a letter written by Bernardo del Campo (an attaché at the Spanish Embassy in London) to the Count of Floridablanca in Madrid, del Campo states that Spanish orders account for between two-thirds and three-fourths of the total amount of manufactured goods produced in the major industrial centers of England. Moreover, the letter contends that it is not possible for Spain to compete with these products in terms of price, quality, or craftsmanship.

Among the products in demand were English pianos and harpsichords, which were exported to Madrid. An examination of advertisements for second-hand instruments placed in Madrid newspapers during the second half of the eighteenth century, confirms the great prestige English keyboard instruments (mainly pianos, harpsichords and claviorgana) enjoyed in Madrid, particularly in the last quarter of that century. The fashion for English harpsichords even extended to the Spanish Royal Family. The Infante Don Gabriel (1752-1788) is known to have acquired two English harpsichords, the first in 1777 and the second in 1784. A description of the latter harpsichord can be found in the National Historic Spanish Archives, denoting a harpsichord with machine stop and likely outfitted with swell. Antonio Soler composed several of his keyboard sonatas and concertos for Don Gabriel.

While Juan del Mármol, Francisco Flórez, and also Tadeus Tornel represented the later exponents of the eighteenth century Spanish school of harpsichord and piano making, the earlier years of the century were dominated by the exceptional Andalusian harpsichord maker Diego Fernández. Fernández (1703-1775) was harpsichord maker to the Spanish Royal Family from 1722 until his death in 1775. One of the most outstanding examples of his craft is the instrument he made for and presented to Queen Maria Barbara. The harpsichord in question was later bequeathed to Farinelli upon the queen's death. Farinelli took this exemplary harpsichord (which he called the "*Correggio*") with him to Italy. The *Correggio* was outfitted with three sorts of strings – brass, steel and gut - registers of *cembalo*, *ottavina*, *arcileuto*, *arpa* and *cembalo a somiglianza di flauto*, and a set of ten feet pommels to engage and disengage the registers. The *Correggio* harpsichord built by Diego Fernández testifies to the variety of tone-colors that were available to a musician at the Spanish court. Beginning in the second half of the eighteenth century, Spain could boast not only English harpsichords but also combined instruments built by both English and Spanish craftsmen.

Luisa Morales

Luisa Morales is a specialist in Spanish keyboard music. She has given concerts as a soloist in Europe, the United States, Mexico, Canada, and South America, often under the auspices of the Spanish Embassy and the Department of Cultural and Scientific Relations of the Ministry of Foreign Affairs. She has published articles in music journals and has taught courses and given lectures and recitals on Spanish keyboard music at several European universities and centers including Edinburgh University; the National Music Museum in Vermillion, S.D.; the University of California at Riverside; Magnano International Symposium; and the Harmoniques Conference, Lausanne. She was a grant holder of the Ministry of Culture for four consecutive years for the International courses of Spanish music in Santiago de Compostela, the Manuel de Falla Courses in Granada, and the Sweelinck Conservatory in Amsterdam. In 1983 she won the Colemán and José Miguel Ruiz Morales prizes for interpreting Spanish music. From 1980 to 1990 she studied in Paris and Amsterdam under Rafael Puyana and Ton Koopman.

Her publications include, as editor, *Claves y pianos españoles: interpretación y repertorio hasta 1830* (2003), *Obras para tecla del siglo XVIII MM. de San Pedro de las Dueñas* (1997), and articles in the music journals *Nassarre* (1996, 1997, 1999, and 2002), *Revista de Musicología* (2000 and 2002), *De Clavicordio* (Magnano proceedings, 2004), *Eighteenth Century Music Review* (2006) and *Goya Encounters* (UC Riverside proceedings, in press). She is a contributor as recording reviewer for the electronic Spanish music magazine *Mundoclasico.com*.

Luisa Morales has recorded as soloist the CDs *Musica Sorprendente* (Caskabel) with eighteenth-century music discovered by her in a Spanish Benedictine convent, and *Soler and Scarlatti in London* on the Kirckman harpsichord at the NMM, Vermillion. She is the founder and director of FIMTE, the International Festival of Spanish Keyboard Music.

Cristóbal Salvador has extensively toured Europe with his dance ensemble, participating in the most important folkloric dance festivals, including Birmingham International Folklore Festival (UK), Festival de Alatri (Italy), and Festival de Vilareal (Portugal). He has given courses on Andalusian folklore, Bolero Dance, and castanets at the dance schools of Murcia, Burgos, Almería, at International Courses of the Birmingham Festival, and at FIMTE Symposia. Mr. Salvador is a member of the committee board of the Andalusian Federation of Folklore Associations (FAAF) and of the Spanish National Federation of Folklore Associations (FEAF). Together with harpsichordist Luisa Morales, he has performed in the United States (at the National Music Museum and UC Riverside), and in Mexico, Scotland, and Spain.

About the instrument:

This two-manual harpsichord by Joseph Kirckman, London, 1798 (NMM 3328, Rawlins Fund, 1983), is one of the last made by the Kirckman firm, which, alongside the rival Shudi-Broadwood firm, dominated English harpsichord making for most of the eighteenth century. The instrument has the standard English disposition of five-octave FF-f³ compass (61 notes), lower manual with 8' and 4' registers, a “dogleg” 8' shared by both keyboards, a nasal (“lute”) 8' on the upper, and a buff stop to the lower-manual 8'. In addition, there are two pedals: a “machine stop,” which turns off registers as it is pressed down, and a Venetian swell.

Sunday morning, May 21, 9:00-9:30 – Pardee Lab

David Rachor
University of Northern Iowa, Cedar Falls
and
Bryant Hichwa
Sonoma State University, Rohnert Park, Cal.
“Analysis of the Baroque Bassoon”

We have developed a straightforward mathematical acoustic model which we have applied to various Baroque and modern bassoons. The purpose of our study is to understand the evolutionary development of these instruments. We have also measured the sound pressure level response of these instruments versus frequency to validate the MathCad-based mathematical model. We find that we are able to successfully predict the results we obtain experimentally. We have also observed a significant feedback effect (the bassoon player) on the spectral response of these instruments during the initial attack and the sustained performance.

David Rachor, Professor of Bassoon at the University of Northern Iowa, is an internationally recognized scholar and performer on both the modern and period bassoon. Rachor spent the 2004-2005 academic year in Paris, France, where he was Visiting Guest Professor of Baroque and Modern Bassoon at the Conservatoire National Supérieur de Musique et de Danse. He has traveled extensively, presenting bassoon performance master classes and giving seminars on historical reed-making.

Bryant Hichwa, Professor of Physics and Astronomy at Sonoma State University has an intense interest in the acoustics of historical instruments. Prior to his current position, he was the Vice President of Research at Optical Coating Laboratory Inc. in Santa Rosa, California. He teaches courses in the physics of musical instruments. Another current research project involves the medium- to long-distance hearing mechanism in African elephants.

Sunday morning, May 21, 9:30-10:00 – Pardee Lab

Pedro Manuel Branco dos Santos Bento
University of Edinburgh, Scotland
“Natural Chords and Stiffness-Dependent Inharmonicity:
Theoretical Study and Practical Experiments”

The theory of natural intervals is based on the coincidence of harmonics and a consistent system of heterodyne components resulting from two periodic tones. It relies on the assumption that harmonics' frequencies are exact multiples of their fundamental. This theory is not exact in the case of the harpsichord, as its string stiffness creates inharmonicity - deviations in each harmonic's pitch varying with its number squared. This means there is no longer one single value for an interval that agrees with the 'natural' interval concept. The scope of this paper is to explore a range of solutions to this problem applied to a single major chord within a single register in a specific harpsichord, given this instrument's inharmonicity coefficient (Fletcher's 'B' factor). As the differences between these solutions are on the edge of both mechanical precision obtainable in tuning and human hearing discrimination capabilities, results of these models are presented with both computer-generated tones and recordings of real harpsichord sounds.

Pedro Bento obtained an Honours Degree in Musicology at Universidade Nova de Lisboa (Portugal) and finished a Master's Degree in Music at the University of Aveiro, Portugal, with a dissertation on Varèse's *Poème Electronique* and the relationship between resources, ideals and material results in this work. He has taught acoustics at the Conservatory of Aveiro since 1982 and has developed an interest in both the harpsichord and the relationship between tuning and specific instruments' idiosyncrasies. At present, he is a PhD research student in Music – Early Keyboard Organology at the University of Edinburgh, under Dr. Darryl Martin and Dr. Arnold Myers.

Sunday morning, May 21, 10:15-10:45 – Pardee Lab

Benjamin Hebbert
St Cross College, Oxford, and The Metropolitan Museum of Art, New York
“Other Writers on Musical Instruments?:
The Musical Annotations of Samuel Hartlib, Sir Francis Kynaston
and Their London Circle, 1630-1660”

The unfinished treatise on musical instruments written by James Talbot at the end of the seventeenth century is considered unique amongst English writings as source on musical instruments. His attempts to create a comprehensive publishable work along the lines of Michael Praetorius's *Syntagma Musicum* and Marin Mersenne's *Harmonie Universelle*, presents one aspect of a general dialogue on musical instruments that existed within scholarly circles throughout Europe in the seventeenth century.

This paper is intended to bring to light the discussions about musical instruments as they existed in the Gentleman's and Courtier's academies of Jacobean society. The diaries and correspondence of the *London Intelligencer*, Samuel Hartlib, and an unpublished manuscript of Sir Francis Kynaston, reveal a vibrant international exchange of ideas with correspondents throughout Europe, including Mersenne and Constantijn Huygens. Moreover, this provides us with valuable information about the circulation of musical instruments that were of high cultural and scientific importance. We learn about the envious remarks made about values assigned to stringed instruments and of chemical treatments to make a lute or viol “look and sound as if it were a hundred years” old. These sources also reveal attitudes towards musical instruments at the cutting edge of technology: the desperation of the English to acquire an example of Hans Haiden's *Geigenwerk*, thwarted by the French Court; France's own inventions, the *Archiviole* and *Almerie*; and significant information about the popularity of England's precursor to the pianoforte, the Pedals.

Sunday morning, May 21, 10:45-11:15 – Pardee Lab

Alicja Knast
London Metropolitan University and
Interdisciplinary Centre for Computer Music Research, University of Plymouth, England
“Marcin Groblicz - Globetrotter, Alchemist, and Luthier:
a New Source for the History of Instrument Making in the Eighteenth Century”

Recently, a unique document has been discovered in the library of the Lithuanian Academy of Science in Vilnius, Corpus of Masonica, formerly belonging to the Biblioteka Wroblewskich. Although authorship of entries is not immediately clear, it turns out to be a 66- page notebook of Marcin Groblicz, the most famous stringed-instrument maker in Poland in the first half of the eighteenth century. It contains recipes for varnish and a red paint, a tuning scheme for the *viola da gamba*, five rosette drawings, a *chinoiserie* drawing, entries concerning Marcin Groblicz’s numerous trips and commissions, recipes how to extract gold from silver, directions where to find gold or silver on Polish territory, and cures for several diseases. The notebook supports the author’s previous research concerning the chronology of the Polish school of stringed-instrument making and complements the design analysis of some instruments still available in museums and private collections.

Alicja Knast lectures about various aspects of musical-instrument history and design at London Metropolitan University. She recently joined the Neuroscience of Music Team in the Interdisciplinary Centre for Computer Music Research, University of Plymouth, UK. Her PhD topic is the *Polish School of Stringed Bowed Instrument Making* (in progress). She carries out research in psychoacoustics, music reception, and the history of conducting, but her biggest dream is one day to finish the London Marathon, which, unfortunately, occupies some amount of her research time.

Sunday morning, May 21, 11:30-12:00 – Concert Hall

Francesco Nocerino
Centro Iniziative Didattiche Musicali NaturalMenteMusica, Naples, Italy
“Harpichord Makers in Naples During the Period of the Spanish Viceroy (1503-1707):
Recent Discoveries and Unpublished Documents”

Research and study of documents concerning harpsichord makers working in Naples during from 1503 to 1707 reveals interesting new information about the Neapolitan production of musical instruments. The consulted documents concern, above all, purchases, sales, marriages, wills, and donations, as well as the service performed by harpsichord makers who had their shops in Naples. By citing places, people, and objects, the documents offer a genuine cross-section of daily life in the period when these artisans, including Guarracino, Sabbatino, and Bocalari, lived and worked. The archival documents (including unpublished ones) are mainly drawn from the Archivio di Stato di Napoli, the Archivio Storico del Banco di Napoli, and the Archivio Storico Diocesano di Napoli. They provide much information about the instruments (*cembali, spinette, minicordi e tiorbini*) made in Naples during the period of the Spanish viceroys.

Francesco Nocerino, a native of Naples, has, alongside his activity as teacher, been engaged in extensive archival research aimed above all at shedding light on the history of the musical instruments and their makers. In recent years he has also found unpublished music from the sixteenth to eighteenth centuries. The results of his work have been presented in lectures and conferences and published in numerous articles. He is president of the Centro Iniziative Didattiche Musicali NaturalMenteMusica.

Sunday afternoon, May 21, 12:00-12:15 – Concert Hall

David Schulenberg
Wagner College, New York
Mini-Recital on the Octave Virginal by Onofrio Guarracino, Naples, 1694
with
Mary Oleskiewicz
University of Massachusetts, Boston,
transverse flute by Philippe-Alain Dupré
after an anonymous late-seventeenth-century instrument in Assisi

- Bascia flammignia Antonio Valente (fl. 1565–80)
from *Intavolatura de cimballo* (Naples, 1576)
- Canzona franzesa quarta Giovanni Maria Trabaci (c. 1575–1647)
from *Recercate* (Naples, 1603)
- Ballo di Mantova Giovanni Battista Ferrini (c. 1600–1674)
from MS Vat. Mus. 569 (“Mutii” manuscript)
- [Suite in F] Bernardo Pasquini (1637–1710)
Allemanda from Berlin, Staatsbibliothek, MS L.215
Corrente (autograph manuscript)
[Giga]
- Sonata V in G Arcangelo Corelli (1653–1713)
after Sonata in E, op. 5, no. 11, arrangement from *Six Solos for a Flute and a Bass*
(London: Walsh and Hare, 1702)
- Preludio: Adagio
Allegro
Adagio
Vivace
Gavotta: Allegro

David Schulenberg is chair of the music department at Wagner College in New York City. His books include *Music of the Baroque* and *The Keyboard Music of J. S. Bach*, whose second edition will appear this fall. His edition of twenty-four keyboard sonatas by C.P.E. Bach, including the *Probestücke*, was published earlier this year by the Packard Humanities Institute. Samples from his performances on historical keyboard instruments are on his website at www.wagner.edu/faculty/dschulenberg.

Mary Oleskiewicz, since winning first prize in the National Flute Association’s Baroque Flute Artist Competition in 2001, has served on the faculty of the University of Massachusetts, Boston. Her research has appeared in books, musical editions, and journals, including those of the Galpin Society and the American Musical Instrument Society. She appears in Boston with the orchestras of Chorus Pro Musica and the Handel and Haydn Society, and she has recorded for Naxos and Hungaroton.

About the instrument:

The little virginal (NMM 6041, purchase funds gift of Margaret Ann and Hubert H. Everist, Sioux City, Iowa, 1997), dated 1694, is the latest known work of Onofrio Guarracino (born 1627/8, active until 1698), the most notable and prolific harpsichord maker in seventeenth-century Naples. With its rectangular maple case and its wrest plank placed to the left, behind the jacks, the instrument is a typical product of the distinctive Neapolitan school of harpsichord and clavichord making, which had flourished since the early sixteenth century. (A very similar anonymous early-to-mid-sixteenth-century Neapolitan octave virginal, NMM 4660, is on display in the Museum's Pressler Gallery, upstairs.) The compass of the 1694 virginal is the standard C/E to c³. The outer case in which it is kept and the stand are later. Although several harpsichords, a bent-side spinet, and about ten large rectangular virginals at 8' pitch by or attributable to Guarracino are known, the present instrument is his only small virginal, designed to be tuned to 4' pitch. Charles Burney observed in 1770 that "throughout Italy they have generally little octave spinets to accompany singing, in private houses, sometimes in triangular form, but more frequently in the shape of our old [rectangular] virginals; of which the keys are so noisy, and the tone so feeble, that more wood is heard than wire." The Guarracino of 1694 shows, however, that such instruments, when well designed and made by a great master, can have both a relatively quiet action and (except, perhaps, for the very lowest notes) a full-bodied tone.

Sunday afternoon, May 21, 2:00-2:30 – Pardee Lab

Herbert Heyde
(The Metropolitan Museum of Art, New York
“Who Built the Instruments?:
The Case of the Nuremberg Trumpet Makers and the *Fecit* Hypothesis”

In continuation of earlier research, this paper pursues the question why many brass instruments include in their mark the predicate “fecit” or “machts” while others do not. The clarification of this issue can be approached from consideration of commercial lore and law, and the organization of instrument making as craft and art. Accordingly, the person who marked the instrument with his name does not necessarily designate its maker. Division of labor and the rise of entrepreneurship in the pre-industrialized period complicate the elucidation of this issue as well as the attribution of an instrument to its maker. The predicates “fecit” or “machts” indicate at least in some local traditions, such as in Nuremberg, that the person who signed the instrument was also the maker.

Herbert Heyde studied musicology at the University of Leipzig, where he received the PhD degree in 1966. From 1965 to 1992 he worked at the Musical Instrument Museum of the University of Leipzig and at other musical instrument collections in the former East Germany. In 1992 he left for the United States, where he first worked at the Trumpet Museum in Pottstown, Pennsylvania, and at the Shrine to Music Museum, now the NMM.. In 1994 he came to the Metropolitan Museum of Art in New York, where he currently serves as an Associate Curator. In 1991, he received the Curt Sachs Award of the American Musical Instrument Society.

Sunday afternoon, May 21, 2:30-3:00 – Pardee Lab

Klaus Martius & Markus Raquet
Germanisches Nationalmuseum, Nuremberg, Germany
“Encounter with Anton Schnitzer”

The Schnitzer family is well known for brass instrument making in Nuremberg. While investigating a little-known trombone in Altoetting (Upper Bavaria), the authors came across some other still unpublished Schnitzer instruments and parts of instruments, which could be attributed to this workshop. They are preserved in public collections in Ingolstadt, Kassel, Hamburg, and Nuremberg. The Altoetting trombone dates from 1576 and can be regarded as the earliest known instrument by Anton Schnitzer the Elder. This paper will introduce these instruments by comparing technological details and ornamental characteristics. We will also delineate later modifications to the instruments. In stringed instruments it is well known that attributions based only on signatures are problematic. Similar problems occur in brass instruments with mixed-up parts from different makers and epochs.

Klaus Martius, who studied with Friedemann Hellwig, is Conservator of musical instruments at the Germanisches Nationalmuseum. He is the author of several publications on the technology of historical instruments, particularly bowed strings, the conservation of musical instruments, and documentation techniques.

Markus Raquet is a Conservator of metal objects and musical instruments at the Germanisches Nationalmuseum. He has published articles on conservation techniques and technical studies of historical instruments. He is also a maker of historical brass instruments.

Sunday afternoon, May 21, 3:00-3:30 – Pardee Lab

Sabine K. Klaus

National Music Museum, The University of South Dakota

“Toy or Status Symbol?:

Miniature Horns from Workshops of Renowned Nuremberg Trumpet Makers”

Up to now, little attention has been paid to a small, peculiar group of musical instruments, or perhaps ornamental objects, from famous Nuremberg trumpet workshops: precious miniature horns which easily fit into the palm of one’s hand. Two of them were briefly mentioned in Willi Wörthüller’s ground-breaking dissertation on Nuremberg trumpet makers, but recent research has revealed the existence of more. At least three workshops were involved in their manufacture: those of the famous Haas family, Johann Leonhard Ehe II, and probably also Johann Carl Kodisch.

Since these instruments can play only simple rhythmic signals, their real function is mysterious. Wörthmüller interpreted one of them as toy, but the use of precious metals, such as silver and gold, and the high standard of workmanship contradict this view. Control stamps from the Nuremberg city officials confirm not only their authenticity and date, but also testify to the esteem in which they were held. It is therefore likely that these miniature horns had more noble functions than being just toys: they might have carried a high degree of symbolism. Although they are perhaps not designed to be musical instruments, their fixed mouthpieces offer interesting insight into late seventeenth and early eighteenth-century mouthpiece design and therefore also offer possibilities for organological research.

Sunday afternoon, May 21, 3:45-4:15 – Pardee Lab

Stewart Carter
Wake Forest University, Winston-Salem, N.C.
“From Neuschel to Kodisch:
Tradition and Innovation in Nuremberg Trombone Making”

Nuremberg makers dominated the manufacture of trombones for more than two centuries. While the earliest surviving Nuremberg trombone dates from the middle of the sixteenth century, there are indications of trombone-making activity in the city as early as 1487, when Hans Neuschel the Elder and Hans Keymer supplied Ziehstücke, perhaps trombone slides, to their customers. More “concrete” evidence exists in the form of a Florentine sculpture from about 1494, which offers a three-dimensional representation of a trombone, probably of Nuremberg manufacture.

The earliest surviving trombone, by Erasmus Schnitzer, embodies the “standard” form of the sixteenth-century tenor instrument, with a bore of just over 10mm, bell diameter of 94mm, and a sounding length of about 2600 mm. For approximately the next 150 years, Nuremberg trombones changed little. That the instrument’s length in particular varied only slightly during this era is perhaps related to the fact that a Nuremberg trombone was considered a reliable standard of pitch, as Michael Praetorius tells us in his *Syntagma musicum* (1619).

Johann Carl Kodisch (1654- about 1721) must have been one of the most prolific trombone makers of his day: his nine extant trombones exceed the surviving output of any maker prior to the late eighteenth century. They also mark the zenith of the trombone-maker’s craft in their superb workmanship and elaborate but tasteful decoration. Comparing measurements of more than fifty instruments by various Nuremberg makers, my paper demonstrates that Kodisch followed the Nuremberg tradition as concerns sounding length, bore size, and general form of the trombone, but he was an innovator in certain aspects of the form and, concomitantly, the sound of the instrument. It further shows that Kodisch’s innovations presaged the inception of the “modern” trombone, as revealed in the work of such later makers as Joseph Huschauer of Vienna and C.F. Sattler of Leipzig.

Stewart Carter is Editor of the *Historic Brass Society Journal*, General Editor of *Bucina: The Historic Brass Society Series*, and former editor of *Historical Performance*. He has also edited *A Performer’s Guide to Seventeenth-Century Music* (Schirmer Books, 1997). He is a member of the Board of Governors of the American Musical Instrument Society and was awarded the Society’s Francis Densmore Prize in 2004. He is a contributor to the *New Grove Dictionary of Music and Musicians*, second ed. (2001), and his articles have appeared in *Early Music*, *Historical Performance*, *Performance Practice Review*, *Historic Brass Society Journal*, and *Journal of the American Musical Instrument Society*. Carter is Professor of Music at Wake Forest University in Winston-Salem, North Carolina, where he teaches music history and theory and directs the Collegium Musicum.

Sunday afternoon, May 21, 4:15-4:45 – Pardee Lab

Arnold Myers
University of Edinburgh, Scotland
“The Acoustical Design of Nuremberg Brasswind Instruments Before 1779”

Extant brass instruments from the Nuremberg workshops present what is inevitably an incomplete picture of the range of models produced in the period of dominance of Nuremberg makers in the international market. Nevertheless some trends can be traced which show the developments in acoustical design of brasswind instruments from the sixteenth to the eighteenth century. This paper presents an interpretation of measurements of acoustically significant features of instruments in European and American collections and makes comparisons between the designs of Nuremberg instruments and the models produced by contemporary makers elsewhere.

Arnold Myers read physics at St Andrews University and completed his doctorate at the University of Edinburgh with research into the application of acoustical techniques for the study of brass instrument history. He is the Director of the Edinburgh University Collection of Historic Musical Instruments and edits the Catalogue of the Collection. He is the Communications Manager of Galpin Society, having created the Society’s website, which he continues to maintain. He served two terms as the Vice-President of CIMCIM, the International Council of Museums committee concerned with musical instrument collections. He is one of three authors of the Oxford University Press book *Musical Instruments: History, Technology and Performance of Instruments of Western Music* and has contributed articles to *The New Grove Dictionary of Music and Musicians* and *The Cambridge Companion to Brass Instruments*.

Sunday afternoon, May 21, 5:00-5:30 – Pardee Lab

Markus Raquet & Klaus Martius
Germanisches Nationalmuseum, Nuremberg, Germany
“Some New Insights into Nuremberg Brass Instrument Making Technologies”

The quality of Nuremberg brass instruments in the sixteenth to eighteenth centuries is tied to the high technological standard of metal crafts in the Imperial City, famous all over Europe. Based on a careful examination of tool-marks, some new aspects of metal working techniques will be described and compared with theoretical sources and engravings, such as Christoph Weigel's *Ständebuch* and Martin Engelbrecht's *Trompetenmacher* and *Trompetenmacherin*. Other related metal-working disciplines, apart from the trumpet makers, will be a special focus. Spinning marks, the making of rims by rolling, soldering techniques, and decoration techniques of ferrules will be demonstrated. These observations lead to the assumption that trumpet makers depended on suppliers of related metal disciplines and may have purchased pre-manufactured parts for their work.

Sunday afternoon, May 21, 5:30-6:00 – Pardee Lab

Robert Pyle
S.E. Shires Co., Hopedale, Mass.
“Brass Instrument Manufacturing Technologies, Old and New”

The manufacture of brass instruments is perhaps unusual in that it uses some techniques that have changed very little since the fifteenth century and others that have become available only within the past thirty years. The introduction of low-cost computing has allowed a certain degree of automation, but a surprising amount of hand work is still required to produce a high-quality instrument. In this presentation, photographs and video will illustrate methods of forming and machining the parts of a trombone. These processes will be compared with earlier techniques. Also discussed will be the effect of change in the relative cost of labor and materials, the issue of workplace safety, and the environmental impact of the manufacturing process.

Sunday evening, May 21, 8:15 – Concert Hall

Concert
South Indian Classical Music

performed by:
Kalaimamani (“Great Jewel of Art”) Sikkil Mala Chadraseskar,
of Chennai, India,
leader, playing the South Indian bamboo flute

with
Jayashankar Balan, violin
Vinod Seetharaman, *mrdangam* (double-headed drum)
Ravi Balasubramanian, *ghatam* (clay pot)

Introduced by
Beth Bullard

Carnatic flutist **Sikkil Mala Chandrasekhar** (“Mala”), from Chennai, South India, has won many awards and honorary titles for her artistry. The most prestigious of these titles is Kalaimamani, meaning “Great Jewel of the Arts,” which was bestowed upon her at a very young age for such an honor by her home state of Tamil Nadu.

Mala belongs to a flute-playing family. Her gurus were (and continue to be) her mother and her aunt, who together make up the famous professional South Indian flute duo known as the Sikkil Sisters (their individual names are Kunjumani and Neela). The Sisters’ uncle and teacher was a flutist of renown, and their father was a noted *mrdangam* artist. Mala thus continues the traditions of her family. In playing style, she combines the strongest aspects of both her gurus –Kunjumani's clear classic lines with Neela’s flair and expressiveness. Mala also conveys the rigorous rhythmic training given by her gurus’ *mrdangam* playing father. Other major influences on Mala’s musicianship are the expertise and the repertoire of noted vocalist and teacher, Radha Viswanathan, and of Radha’s mother and guru, the famed M.S.Subbulakshmi, whose family Mala joined by marriage.

In addition to concertizing in India, including radio and television appearances as an ‘A’ Grade Artist of All India Radio, Mala has performed in the US, Canada, Europe, Mauritius, and the United Arab Emirates. She has also recorded cassettes and CDs. This is her third concert tour in the United States.

Jayashankar Balan, violin, also grew up in a family of musicians and has had a number of noted gurus. He has performed with such world-class artists as Sri T.N. Seshagopalan, Ravi Kiran, and Dr. Yesudas. He is a graded artist of All India Radio and has appeared on behalf of India in international festivals. In 1999 he was invited to perform with Dr. Yesudas at the United Nations in Paris. He has a master’s degree in Computer Science and an MBA in International Finance. His home is in Michigan.

Vinod Seetharaman began learning *mrdangam* at the age of seven. A winner of many music prizes and competitions, he has accompanied leading artists at prestigious venues in India, the US, and Canada. He is a graded All India Radio artist who has performed many radio and television concerts. A resident of Detroit, his profession is in Industrial Technology, in which field he holds a master’s degree.

Ravi Balasubramanian has learned the art of ghatam playing from several master teachers. A sought-after accompanist, his musical career has encompassed performances with top artists in India, the US, Canada, Singapore, Malaysia, and Australia. In India, he has been honored with a title for his musicianship. He resides in Pittsburgh, Pennsylvania, where he has just earned a doctorate in Engineering from Carnegie Mellon.

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The Program Committee is most grateful to Beth Bullard for organizing this concert and for her generous support. We also express our deepest thanks to the Siouland India Cultural Association for their invaluable assistance and hospitality to the musicians.

* * * * *

Introduction

Beth Bullard

George Mason University, Fairfax, Virginia

“Bamboo Flute, Violin, *Mrdangam* Drum, and Clay Pot (*ghatam*):
The Perfect Instrumental Ensemble for South Indian Classical Music?”

It could be argued that the perfect instrumental ensemble for South Indian classical music would consist of one instrument from each of the four organological categories in ancient Sanskrit treatises: (1) instruments whose sounds derive from flowing wind, (2) those whose sounds derive from activated strings, (3) those whose sounds are produced by a stretched membrane that is struck, and (4) those whose sounds derive from the body of the instrument itself being struck. Of interest to us here is the fact that in the nineteenth and twentieth centuries these Indian categories of great antiquity were adopted, without attribution, by Western organologists, including Hornbostel and Sachs, who rechristened them with the now-familiar Western names of aerophones, chordophones, membranophones, and idiophones.

The South Indian instrumental ensemble that brings together one each from the four instrumental categories consists of bamboo flute, violin, *mrdangam* (double-headed drum), and *ghatam* (clay pot). Though these instruments come from widely separated layers of human history, they complement each other well. The *ghatam* is eldest, being a common household item today as it was thousands of years ago. The bamboo flute is likely the next oldest, being a length of bamboo, a naturally closed tube into which holes for blowing and for fingering are burned. Next is probably the barrel-shaped *mrdangam* with its complex structure of multiple heads. Last to join the South Indian instrumentarium is the violin, imported by Western voyagers and colonizers during the era spanning the sixteenth to nineteenth centuries.

Besides bringing together the four basic organological categories, there are additional reasons why this particular combination of instruments approaches a kind of perfection that other Indian instrumental ensembles do not have. Firstly, where vocalists hold highest rank because of their ability to pronounce sacred texts in rhythm and rhyme as well as melody, the flute comes closest of all instruments to simulating vocal production: wind activates the flute as it does the voice, and flutists give life to musical expression by varying vowel shapes in the mouth and by articulating consonants with the tongue, just as vocalists do. Likewise, the violin can imitate vocal production. In this regard, the violin

surpasses its ancient predecessors in South India: plucked chordophones – harps and stick zithers, the latter evolving into the modern *vina*.

Secondly, these four instruments hold such strong extra-musical associations individually, that their combination intensifies these meanings. In Hindu mythology, for example, each of the three “persons” of the Hindu “trinity,” i.e., manifestations of the one Godness – Vishnu, Shiva, and Brahma – is connected to a category of instruments. For Vishnu, protector and preserver of the universe, it is aerophones; for Shiva, regulator of cosmic cycles and Lord of the Dance, it is primarily membranophones; and for Brahma, generator or first principle, it is chordophones, though only through his female counterpart, Saraswathi, initiator of language and learning. The idiophone, *ghatam*, having more humble, human associations, relates to the naughty but endearing boyhood antics of the god Krishna (one of Vishnu’s incarnations), who coveted and stole clay pots filled with butter.

Beth Bullard, a specialist in the music of South Asia, received the BA degree from Oberlin College, the MA from Harvard University, the PhD in Musicology from the University of Pennsylvania, and the PhD in Ethnomusicology from the University of Maryland, Baltimore County, with additional study at the School of Oriental and African Studies, University of London, England. She worked in Madras (Chennai) in 1995-96 under a Senior Research Fellowship with the American Institute of Indian Studies. Her translation and study of Sebastian Virdung’s *Musica getutscht* (1511) was published by Cambridge University Press in 1993. Dr. Bullard is a Professor on the faculty of George Mason University, Fairfax, Virginia.

Monday morning, May 22, 9:00-9:30 – Pardee Lab

Nicholas Shackleton
“A Clarinet Corresponding to the 1842 Patent of Adolphe Sax”
read by Ingrid E. Pearson

Adolphe Sax (1814-1894) is probably the most well known nineteenth-century innovator in the field of the development of musical instruments. Apart from his incredibly successful saxophone, Sax is best known for his work on brass instruments. He also transformed the bass clarinet; the contrast between his bass clarinet and its predecessor is perhaps greater than achieved on any other instrument in one step.

In 1840 and 1842 Sax also filed two patents relating to the soprano clarinet. Both of these seem to be important and innovative, yet until very recently no clarinet by Sax that demonstrated either of these patents had been located. This paper discusses a clarinet marked * / SAX / ABRUXELLES. / * acquired in 2004 which corresponds exactly to the instrument described and illustrated in the 1842 patent.

The 1840 patent (Belgium Patent no. 5034/1560 of 19 Feb., 1840) actually shows two instruments, one with all the new ideas and a simpler one. There is no instrument extant corresponding to the more complex of the two, whilst the only extant instrument that corresponds to the simpler is by Hanken of Rotterdam. The important new features are a key for written e^2 , and a pair of rings or *brille* on the right-hand joint. This *brille* was the most important contribution to the clarinet following Iwan Müller’s innovations.

Clarinets having 13 keys and a *brille* are generally known, in the English-speaking world, as the *Albert System* because it was manufactured with enormous success by Eugène Albert (1816-1890) and his successors in Brussels. However, it could equally well be called a Sax-system clarinet. The most remarkable feature of the more complex instrument illustrated is a ring for the index finger of the right hand (R1) that closes a keyed hole below the left-hand index finger (L1), which is also closed by a ring for the left-hand middle finger (L2).

The 1842 patent (Belgium Patent no 2244/1326 of 27 May, 1842) shows an instrument that incorporates all the features of the more complex instrument from the 1840 patent, with the addition of an ingenious automatic speaker key system that operates by means of a split ring for the right-hand ring finger (R3). It is this instrument that will be discussed in this paper.

Sir Nicholas John Shackleton (1937-2006) read Physics at Clare College, Cambridge. He remained in Cambridge for his whole working life, progressing to Professor and Director of the Goodwin Institute of Quaternary Research. He contributed the clarinet-related articles for the *New Grove Dictionary of Music and Musicians* in 1980: these articles and their revisions in the 2001 edition are the most approachable and thorough treatment of the clarinet in the reference literature. Nick contributed research articles to the *Galpin Society Journal* and to specialist clarinet periodicals. He assembled a comprehensive collection of several hundred clarinets dating from the eighteenth century to the present day and was conspicuously successful in obtaining instruments with original mouthpieces and in playable condition.

Monday morning, May 22, 9:30-10:00 – Pardee Lab

Ingrid E. Pearson
Royal College of Music, London
“Gennaro Bosa, Ferdinando Sebastiani, and the Development
of the Thirteen-Keyed Clarinet in Nineteenth-Century Italy”

The Italian clarinet virtuoso Ferdinando Sebastiani (1803-1860) has been all but forgotten since his death. Born in the southern Italian town of Capua, Sebastiani studied at the Real Collegio (later the Conservatorio) in Naples and held the positions of principal clarinet at the Teatro San Carlo and Reale Cappella Palatina, as well as teaching at the Conservatorio. His use of the reed-above embouchure confirms the existence of a ‘golden age’ of this technique amongst nineteenth-century Italian players. This embouchure, where the reed rests on the upper lip, has now virtually disappeared. However, eighteenth-century organological, iconographical and documentary evidence confirms it was the more popular of the two reed positions used in the clarinet’s early years. Nowadays, the vast majority of clarinetists use the reed-below embouchure, where the reed rests on the lower lip. In addition to functioning as an important source for players wishing to reconstruct the reed-above embouchure, Sebastiani’s *Método per clarinetto* of 1855 illustrates a distinctive thirteen-keyed clarinet, with modifications including a thumb-key for f#/c#². This instrument, which Sebastiani used until the end of his life, was the result of his collaboration with the Neapolitan maker Gennaro Bosa (fl. Naples, 1836).

Iwan Müller’s pioneering thirteen-keyed clarinet, first documented about 1812, was made during the 1820s in the workshops of Gentellet, Brelet, J.G.C. Bischoff, B. Schotts Söhne, and Griessling and Schlott in Berlin. Other forms of the thirteen-keyed clarinet evolved alongside Müller’s as demonstrated by the survival of instruments by Lefèvre, Simiot, Godefroy, Leroy, Tuerlinckx, Graves and Co., Thomas Key, Bilton, John Campbell, and Goulding and Co. Whilst the organological development of Müller’s thirteen-keyed clarinet has been well documented, little attention has been paid to the development of the instrument in Italy. This paper presents an overdue documentation of the Bosa/Sebastiani instrument preserved in the Naples *Conservatorio* and others in the *Museo di Capodimonte*. The Bosa/Sebastiani clarinet is a rare example of an extant instrument associated with a known virtuoso player, and its design conveys a seldom told story of collaboration between player and maker. Sebastiani’s espousal of the reed-above embouchure can only fully be understood by an investigation of the instrument he used. A study of the Bosa/Sebastiani clarinet has the potential to bring us much closer to an understanding, in both theory and practice, of the elusive reed-above embouchure.

Ingrid Elizabeth Pearson is currently Deputy Head of the Graduate School of the Royal College of Music, where she combines lecturing and research with various performance activities. Since moving from Australia to the U.K. in 1995, she has established a profile as an early clarinetist, performing with groups such as The Hanover Band, The Orchestra of the Age of Enlightenment, The Gabrieli Consort and The English Concert. She recently completed her PhD in performance practice, an investigation of clarinet repertoire and performance styles from the eighteenth and nineteenth centuries, at the University of Sheffield, with a thesis on *Clarinet Embouchure in Theory and Practice: the Forgotten Art of Reed-Above*. During 2001 she was an Edison Research Fellow at the National Sound Archive. She has published for Cambridge University Press.

Monday morning, May 22, 10:00-10:30 – Pardee Lab

Heike Fricke

Musikinstrumenten-Museum, Berlin

“The Elusive Chalumeau: New Light on the Origins of the Clarinet”

Johann Christoph Denner combined the body of the recorder with the mouthpiece of a duck call, a heteroglot single beating reed in a wind-cap. This led to a new instrument, the *chalumeau* or *salmoe*. By omitting the wind-cap Denner took the most important step from noise-maker to musical instrument: the reed was now controlled by player’s lip. The new instrument was capable of rich nuances, dynamics and expression. It was subsumed under the term chalumeau, because it had a reed (*calamus* in Latin, from the Greek *χάλαμος*). Following Doppelmayr’s *Historische Nachricht von den Nürnbergischen Mathematicis und Künstlern* (1730), J.C. Denner has been regarded as the inventor of the clarinet. Doppelmayr also reported that Denner improved the chalumeau. No composition for chalumeau before 1700 is known. References to chalumeaux in iconographical sources such as Mersenne’s *Harmonie Universelle* (1636/37) have nothing in common with Denner’s surviving chalumeau. Based on contemporary sources and surviving instruments, this paper will show that Denner invented a new type of chalumeau which uniquely was able to enter art music and to be a part of the development of the clarinet.

Heike Fricke studied musicology, dramatics, and journalism at the Freie Universität in Berlin. Since 1997 she has worked at the Museum of Musical Instruments of the State Institute of Music Research Prussian Heritage Foundation (SIMPK) in Berlin. As a curator she has been responsible for several exhibitions at the Museum, including *Faszination Pianoforte: 300 Jahre Klavierbau in Deutschland* (2000), *Faszination Klarinette* (2004/5) and *Mozart – auf der Suche nach dem neuen Klang* (2006). She is active as an author with several organizations, including Bärenreiter Verlag (articles in the encyclopedia *MGG*), Laaber Verlag (*Beethoven Lexikon* and *Geschichte der Musik im 20. Jahrhundert, 1925-1945*), and the Berlin Philharmonic Orchestra, where she also gives introductory talks. As a guest curator she also worked for the Edinburgh University Collection of Historic Musical Instruments in 2005.

Monday morning, May 22, 10:45-11:15 – Pardee Lab

Eugenia Mitroulia
University of Edinburgh, Scotland
“Adolphe Sax’s Bigger Brasses”

Adolphe Sax’s 1843 patent for the instruments which later became known as saxhorns was challenged by other instrument makers on the grounds that similar instruments were already being made. The patent was upheld, largely because of the difficulties of determining what makes one model of brass instrument essentially different from another, and to this day the terminology of saxhorn-type instruments is notoriously confusing. A number of previously unknown saxhorns have been studied, allowing new conclusions to be drawn. This paper discusses the evolution of the saxhorn in Sax’s workshop and elsewhere from an organological viewpoint, with a particular concentration on the lower-pitched members of the family. Issues relating to the taxonomy and nomenclature of this group of instruments will be discussed. Different methods have been employed, such as direct physical measurements of instruments, use of special acoustical software/hardware (BIAS), and historical research, so as both to provide an insight into Sax’s (and other instrument makers’) approach to instrument design, and to investigate the impact of the modifications in the design of instruments to the player.

Eugenia Mitroulia was born in Greece and graduated from the Faculty of Fine Arts of the Aristotle University of the University of Thessaloniki (Greece) with a BA in Musicology and Music Pedagogic. Her final dissertation was on the history of the wind band of the Municipality of Thessaloniki and the development of wind bands in Greece. She holds degrees in advanced theory from the State Conservatory of Thessaloniki. She is a teacher of music in Greece, currently on leave. Recently she received her Masters of Music in Organology from the University of Edinburgh. Her final dissertation, supervised by Arnold Myers, dealt with the organological development of saxhorns. Currently she is a PhD student at the University of Edinburgh and is studying brasswind organology under the supervision of Dr. Myers.

Monday morning, May 22, 11:15-11:45 – Pardee Lab

Francesco Carreras

Creative Virtual Systems Laboratory, Istituto di Scienza e Tecnologia dell'Informazione, Pisa, "The Rampone Family of Wind-Instrument Makers in Milan"

The name Rampone well represents the history of wind-instrument making in Italy from the beginning of the nineteenth century up to today. Activity of the Rampone family can be traced back to the first decades of the nineteenth century when the names Forni and Rampone appear in documents testifying to their presence in the workshop of the well known woodwind maker Ubaldo Luvoni in Milan. The Forni and Rampone families, which originated in the small village of Quarna, known for its wood turners, had close family ties. For instance, Primo Egidio Forni, who took over Luvoni's workshop, was the uncle of Agostino Rampone. The latter developed a factory in Milan and one in Quarna that became shortly famous for the quality and the constant innovation of the instruments produced. The activities were expanded by the son Egidio Rampone up to the 1930s, and the prizes received in the most important international exhibitions testify to the excellence of the production. Later, the factory passed to different owners and started a long period of decline. Nowadays it is seated in Quarna with a specialized and limited production of high quality saxophones, although other types of instruments can be produced to order. The present study is based on new documents and evidence found during several years of research, and sets precise dates to the events that accompany the history of this factory.

Francesco Carreras is a senior researcher in computer science of the Italian National Research Council, which he joined in 1974. His research interests include the field of music. Since the 1980s, he conducted studies with Pietro Grossi, a pioneer of electronic music in Italy, and more recently with the IPEM institute in Ghent, Belgium, where cognitive and perception processes of music were investigated and modelled. At present he manages the MARTlab laboratory for audio digitalization and restoration in Florence. He regularly gives lectures in organology and musical-instrument acoustics at the Conservatory of Florence. He is a collector of historical Italian flutes and investigates the history of wind-instrument making in Italy. During the past 15 years he has produced several publications in this area. He is member of SidM, ASA, the Galpin Society and AMIS.

Monday morning/afternoon, May 22, 11:45-12:15 – Pardee Lab

Sarah Meredith

Buffalo State College, Buffalo, N.Y.

“Inventing America’s Instrument: The Nineteenth-Century (Re-)Creation of the Banjo”

During the second half of the nineteenth century Northeastern banjo manufacturers, teachers, and performers attempted to elevate the five-string banjo from its association with (black) vernacular traditions to an instrument suitable for performance in (white) middle- and upper-class venues such as the formal concert stage or the sophisticated parlor. The banjo had been, at least tacitly, acknowledged to have been created by black slaves, but by the 1880s, white enthusiasts were downplaying or denying any connection to black ancestry. Using racial and patriotic rhetoric, they boasted the banjo was a truly American instrument, a designation possible because it was created by a white American male. This paper will examine the creation myths promoted by nineteenth-century enthusiasts, placing them in the context of contemporary attitudes regarding race and musical quality.

Sarah Meredith is currently Assistant Professor of Music at Buffalo State College (Buffalo, N.Y.), where she teaches courses in music history, music education, and aural perception and is a Faculty Associate on the Steering Committee for the Center for Excellence in Urban and Rural Education. She holds a PhD in historical musicology from Florida State University, where her dissertation was entitled *With a Banjo on Her Knee: Gender, Race, Class, and the American Classical Banjo Tradition, 1880-1915*. Dr. Meredith is active in numerous professional organizations including the American Musicological Society, the Society for American Music, and the College Music Society, where she has served as secretary for the Northeast Chapter since Fall 2003.

Monday morning, May 22, 9:00-9:30 – Concert Hall

Josephine Yannacopoulou
University of Edinburgh, Scotland
“A New Hypothesis on the Origin of the *Gigue*: Myths and Reality”

In their efforts to give an adequate historic background to the Medieval stringed instrument called the *gigue*, previous scholars have proposed two contradictory theories. The first theory places the source of the instrument in France and argues it is the social nickname for the vaulted *rebec*, because its appearance suggested a leg of mutton, the French *gigot*. The second theory traces the name from a Nordic or Germanic source, descended from the verb *geigen*, to move forwards and backwards, as a descriptive indication of the bow's movements.

This paper will reveal evidence which will prove that neither of these aforementioned theories is correct. An alternate hypothesis, fully supported by documentary facts, is offered, based on the ancient references to the term *gigue* found in the Old Icelandic Sagas (dating from the tenth century), as well as other sources that have been uncovered by the author's research. The paper will also look at later Medieval German verses, Nordic proverbs, and troubadours' accounts, in order to establish the social and artistic contexts in which the instrument was placed.

Josephine Yannacopoulou was born in Paris, France. She was awarded a Master's degree in musicology from the University of Edinburgh in 2003, with a dissertation titled *From the zarabanda to the sarabande; an introductory study of the transformation of the dance from peasant rite to court dance, and ultimately to a movement in the Baroque suite with special emphasis on the keyboard sarabandes of JS Bach*. Funded by the Helen Doig Award, she is currently pursuing PhD research at the University of Edinburgh. She is examining the origin and development of the Medieval *gigue* under the supervision of Darryl Martin. She also holds an FLCM in piano performance from the National Conservatory of Greece, awarded with “Distinction and Award.” She is also lectures on the history of music at Napier University in Edinburgh.

Monday morning, May 22, 9:30-10:00 – Concert Hall

Mauricio Molina
City University of New York

“*In quattuor lignis*: Reconstructing the History, Timbre, and Performance Practice of the Medieval Iberian Square Frame Drum”

Medieval Iberian literary and iconographical sources reveal that a square-shape frame drum known as *adufe* was widely used throughout the peninsula for secular musical events. This instrument consisted of four pieces of wood that were attached to form a square structure on which a treated animal skin was stretched. Post-Medieval sources and nineteenth-century museum specimens suggest that besides the square shell and the vibrating membrane, the instrument included resonators such as snares and little bells whose main function was to increase the volume of these membranophones. While it has been suggested that the Arabs introduced the square frame drum into Iberia after conquering the peninsula in 711, it is also possible that Jewish immigrants brought it during the first waves of the Diaspora. Historical sources indicate that Christian, Jewish, and Islamic professional and non-professional players used it to accompany their voices, and/or bowed and plucked string instruments. Most commonly, the instrument was coupled with round frame drums with and without jingles (*panderos/panderetes*) where it had a specific ensemble role. This paper will scrutinize the extant data to attempt a reconstruction of the history, timbre, and performance practice of this particular hand-held frame drum. Fortunately, the fact that this type of instrument continues to be built and used not only in some regions of the Iberian peninsula but also in the historically and culturally related Maghreb gives us the opportunity to corroborate and expand extant Medieval data with observations of a live tradition.

Mauricio Molina is dedicated to the reconstruction of Medieval Mediterranean music. His interest has not only prompted him to study with the most important scholars in the field but also encouraged him to conduct fieldwork on both sides of the Mediterranean. He is also a specialist of traditional Mediterranean and Middle Eastern frame drum technique, and has been invited to present papers, conduct workshops, and publish articles on the subject. He is currently a PhD candidate of historical musicology at the CUNY's Graduate Center, where he is writing his dissertation, *The Frame Drums in the Medieval Iberian Peninsula*.

Monday morning, May 22, 10:00-10:30 – Concert Hall

Tim Miller
The University of South Dakota
“Eighteenth-Century Bohemian Lutes in the National Music Museum”

Among the collections of the National Music Museum are excellent examples from several points in the European lute’s development, including two specimens from its final flowering in the early eighteenth century. After coming out of the Edlinger family workshop in Prague, these instruments have remained as a set since the 1720s and have been preserved to the present day with relatively little alteration. Like many objects of antiquity, each of these instruments presents us with numerous opportunities for speculation and discovery. Some of these can be explored through a physical analysis of the instrument’s structure and condition. Joining the data gathered by such an inspection with historical documentation and data from other instruments can show even more. Taken all together, the information provided by these lutes offers a great deal of information about construction and performance practices of their time.

Tim Miller received his BM at the University of Delaware and is currently pursuing a Master of Music degree with concentration in the history of musical instruments at the University of South Dakota through the National Music Museum. He is an active performer on the double bass, and a student of historical performance on lute and theorbo as well as a variety of non-Western instruments.

Monday morning, May 22, 10:45-11:15 – Concert Hall

Stephen Birkett
University of Waterloo, Ontario
“Authentic Soft Iron Music Wire, 1500-1830”

All commercial music wire currently available for stringing iron-scaled keyboard instruments is anachronistic. Notwithstanding the philosophical implications of this issue, it is important for practical reasons, since the physical properties of the stringing material are strongly related to design considerations at a fundamental level. Because use of inappropriate stringing materials distorts both the associated musical experience as well as the technical understanding essential for meaningful organological interpretation of design principles for historical keyboard instruments, the availability of modern reproduction wire with the correct physical properties is important. Although the historical techniques used for iron wire production are well documented, the accurate reproduction of historical soft iron music wire has been elusive. This can be attributed to a lack of understanding on a technical and practical level, as well as the expense and difficulty associated with reproducing an entire heavy industry. We present the results of an extended investigation of historical wire based on destructive tensile testing and chemical and metallurgical analyses of many samples taken from early pianos. This study has established that a single iron stringing material is suitable for any application, from Ruckers harpsichords to Graf pianos. In particular, there is no need for different wire types for specific instruments or periods, until the (obvious) change to steel-strung piano scales. Historical iron wire production processes have been put into a practical context by developing our own alloy and drawing it to music wire gauges, including those for nineteenth century pianos as well as the finest gauges for 4-foot harpsichord strings. By following historical methods closely, we have been able to study the relationship between production parameters and the mechanical properties of the final product and to establish practical recommendations. Results of our analyses of historical and reproduction wire will be presented. Our goal is to develop a commercially viable modern technique for producing large quantities of historically accurate soft iron music wire in a range of useful gauge sizes.

Stephen Birkett, born in England in 1955, is a graduate of King’s College, London, and the University of Waterloo, Canada. He is now an Associate Professor of Systems Design Engineering at the University of Waterloo specializing in the modelling and simulation of physical systems. Dr. Birkett, who, studied piano performance at the Royal College of Music, London, is a builder of historical pianos and is active in organological research of stringed keyboard instruments. His laboratory at Waterloo is devoted to an engineering investigation of the design and technology of historical and modern pianos. Development of a computer model to simulate the dynamics of a modern piano action was supported by Steinway Pianos. This research is now being extended to include historical action types, as well as the hammer-string interaction and how tone can be influenced by the pianist and the action design. The physical properties of critical materials such as leather, felt, and wire, are also being investigated, with a goal to produce functionally accurate modern equivalents for historical materials that are no longer available. A long-term project of the Piano Design Lab at Waterloo is the development of a new post-modern piano that combines aesthetic and technical elements from historical and modern pianos with new manufacturing techniques.

Monday morning, May 22, 11:15-11:45 – Concert Hall

Giovanni Di Stefano
University of Rome “La Sapienza”
“*Tangentenflügel* and Other Pianos with Unpivoted Hammers
in Italy During the Eighteenth and Nineteenth Centuries”

Many German tangent pianos (*Tangentenflügel*) by Spath & Schmahl have been recently found in Northern Italy. In addition to the importation of these instruments, there was a domestic tradition of making these instruments in Italy during the eighteenth and nineteenth centuries. Two different types of Italian tangent pianos can be distinguished. The first arose in northern Italy and seems to have been derived from the southern German tradition of Spath & Schmahl. One instrument dated 1799, now in private ownership in Milan, for example, was made there by Baldassare Pastore, who probably copied German instrument. The second type spread in southern Italy, especially in Sicily. The Sicilian of the second half of the eighteenth century are quite different from the German ones and retain some constructional features of contemporary Italian harpsichords. Many eighteenth-century Sicilian tangent pianos were made using the cases of old harpsichords or spinets. In addition to the Viennese piano action, the tangent action was common in Sicily during the nineteenth century. As far as is known, Sicilian makers were the only ones in Europe to continue with this outdated eighteenth-century type of piano until as late as 1850. A fair number of five-octave-compass square pianos with knee levers and leather- or felt-covered tangents survive to testify to this previously unrecognized phenomenon. This paper aims at defining this tradition from historical sources and the description of extant instruments.

Giovanni Paolo Di Stefano, a native of Palermo, took a degree in Discipline dell'Arte, della Musica e dello Spettacolo (Art, Music and Drama Studies) at the University of Palermo with a dissertation entitled *Il pianoforte in Sicilia: Storia e costruttori dal XVIII al XX secolo (The piano in Sicily: its history and makers from the eighteenth to the twentieth century)*. He is pursuing the PhD degree in musicology at the University of Rome “La Sapienza” with research focused on the diffusion of tangent pianos through Europe. Currently he is also working on several projects related to the history, production, diffusion, and cataloguing of musical instruments in Sicily and southern Italy.

Monday morning/afternoon, May 22, 11:45-12:15 – Concert Hall

Haruka Tsutsui

Kyoto, Japan

“Newly Invented Keyboard Instruments Described in
the *Allgemeine musikalische Zeitung* around 1800”

The goal of this paper is to determine, from articles in the leading musical journal, the *Allgemeine Musikalische Zeitung* (*AmZ*), which keyboard instruments were newly invented around 1800 and how contemporary critics regarded them. The period around the turn from the eighteenth century to the nineteenth was crucial in the history of keyboard instrument making in Europe for two reasons. First, this was a period of transition from harpsichord and clavichord to fortepiano, that is, all these instruments coexisted and were used according to the particular circumstances. Second, although not much noted until now, many new instruments were invented. Articles in the *AmZ* around 1800 actually promoted them. The period treated in this paper, from 1798 to 1820, is from the founding of the *AmZ* through the time when improvements in keyboard-instrument making were pursued especially intensively. According to my research, the invention of fifteen new keyboard instruments can be established. They can be divided into four groups according to the nature of the invention:

- A) Keyboard instruments on which orchestral music could be performed;
- B) Keyboard instruments that can be regarded as variants of the glass harmonica;
- C) Keyboard instruments that could imitate the sound of a certain instrument;
- D) Keyboard instruments arising as transformations of the fortepiano.

The instruments of groups B and C, which include the largest portion of all the invented keyboard instruments, are crucial for understanding keyboard-instrument making in this period. Therefore, I will thoroughly describe their construction and analyze the cultural background in which these instruments were produced by various inventors.

The *AmZ* articles indicate that there were two different ideals. On the one hand, different instruments were combined on one keyboard. On the other, inventors sought to produce a perfect keyboard instrument. From these articles on new instruments in the *AmZ* we can accomplish a retracing of the complex developments of keyboard instruments at the turn of the eighteenth century into the nineteenth. This series of articles shows that the conception of ideal tone quality changed dramatically in this period.

Haruka Tsutsui, a native of Kyoto, studied musicology in Osaka University. Her PhD dissertation (written in Japanese) was *The Pianoforte in the First Half of the Nineteenth Century in Vienna*. A major publication, also in Japanese, is “Schumann and his Pianoforte” in *Piano Music Interpreted and Analyzed by the Body* (2003). In October of this year she will begin studies at the Universität für Musik und darstellende Kunst in Vienna.

Monday afternoon, May 22, 2:15-2:45 – Pardee Lab

William W. (Billy) Traylor III
Indiana University; Bloomington
“*Qu’est-ce que c’est un hautbois?*”

Some Nomenclatural Problems of the French Oboe Band in the Late Seventeenth Century”

Playing wind instruments together in groups of similar timbres was not a new in the late seventeenth century. Since the Renaissance, musicians had been playing instruments in consorts (i.e. groups), both full (like timbres) and broken (unlike timbres). As the shawm and dulcian were developed into what are now regarded as the Baroque oboe and bassoon, they became suitable instruments for indoor use, and musicians at the French court began to incorporate groups of oboes into their ballet and opera orchestras. The great innovation here for the development of the orchestra was the inclusion of winds and strings in an ensemble where they were not always playing simultaneously.

The oboe band consisted various combinations of oboes, *tailles de hautbois*, and bassoons. Seldom discussed are which specific size(s) of instruments were most often used, what musical characteristics demanded the use of which instruments, and the similarities and differences in construction, tone, and technique of the various members of the section. Parallels between the instrumental make-up of the string band and the oboe band have been made, but some conclusions are questionable. One problem is the existence or lack of an *haute-contre de hautbois* as a distinct instrument from the treble hautboy. Parallels made with the string band to suggest that there was such an instrument are conflict with the lack of surviving instruments. Another question concerning the absence of the *quinte de basse* part in writing for the oboe band leads to consideration of the timbral qualities desired for each part and the relationship of these to each other.

Primary sources include scores of works by Lully and his contemporaries and organological writings such as Marin Mersenne’s *Harmonie Universelle*, Pierre Trichet’s *Traité des instruments de musique*, and Sébastien Brosset’s *Dictionnaire de musique*.

Billy Traylor is a doctoral student in the Early Music Ensemble Direction program at Indiana University’s Early Music Institute, where he studies Baroque and Classical oboes with Washington McClain and fortepiano with Elisabeth Wright. A native of Baton Rouge, Louisiana, he holds degrees in modern oboe and bassoon performance and pedagogy from the University of New Orleans (BA 2001) and Northwestern State University of Louisiana (MM 2004); he has also attended the University of North Texas. His master’s document was entitled “Antoine Reicha’s *Duo pour piano et basson*: An Analysis and Urtext Performing Edition,” in which he presented a formal analysis and new performing edition taken directly from the composer’s original manuscript of this rarely performed Classical duo sonata for piano and bassoon. Mr. Traylor was the founding music director of the Collegium Musicum Novæ Aureliæ, Louisiana’s only actively performing orchestral ensemble for seventeenth- and eighteenth-century music, and has performed in modern- and period-instrument orchestras and chamber ensembles in Louisiana, Texas, and Indiana. Research interests include Classical and Romantic performance practice, the music of colonial New Orleans, the life and works of Louis Moreau Gottschalk, and the folk musics of Greece and pre-Columbian South America.

Monday afternoon, May 22, 2:45-3:15 – Pardee Lab

Bradley Strauchen
Horniman Museum, London
“Winds of Change: the 1838 ‘Classical Concerts for Wind Instruments’
and Orchestral Wind Sound in Nineteenth-Century London”

In February of 1838, a quintet of London’s leading wind players presented a series of concerts focused on the wind chamber music of composers such as Anton Reicha and Franz Krommer. Although such works are now viewed as a cornerstone of the repertoire and the wind quintet is a firmly established chamber music fixture, the concerts were hailed as a complete novelty by the musical press in 1838, and the repertoire was billed as “hitherto unknown to the British public.” The concerts were organized by the shrewd horn virtuoso Giovanni Puzzi to capitalize on London’s “rage for chamber music,” perpetuated by Henry Blagrove’s string quartet concerts in 1835. For the performances Puzzi enlisted Johann Sedlatzek, flute; Apollon Barret, oboe; Thomas Willman, clarinet; and Friedrich Baumann, bassoon. While some of these players could be heard as soloists performing the self-composed virtuoso fantasias ubiquitous during this period, these concerts raised the profile and status of wind instruments in an unprecedented manner. Among the players brought together by these concerts were performers who were at the vanguard of shaping the performance technique and design of their instruments during a period of great flux in the development of wind instruments. The instruments used and promoted in England by Puzzi, Sedlatzek, Barret and Baumann marked a departure from their predecessors. Their choices were formative in establishing preferences and performance characteristics that would become embedded in London’s orchestral playing and would prevail into the beginning of the twentieth century. This paper will explore the role of the ‘Classical Concerts for Wind Instruments’ and its performers as an agent of change in wind playing in nineteenth-century London.

Bradley Strauchen-Scherer is Deputy Keeper of Musical Instruments at the Horniman Museum in London, where she works extensively with historic wind instruments, including those in the Carse Collection and the recently acquired Boosey & Hawkes Collection. Her research and practical interests include concert life in nineteenth-century Britain, historical performance and organology. She is a player of the hand horn and modern horn. In 2001, she received a DPhil in historical musicology from the University of Oxford. A regular speaker at conferences in Europe and the US, she has contributed to various publications including *The New Grove Dictionary of Music and Musicians*, 2nd ed., the *Historic Brass Society Journal*, and the forthcoming book *Music in the English Provinces 1700-1900*.

Monday afternoon, May 22, 3:20-3:50 – Pardee Lab

Janet K. Page
University of Memphis, Tenn.
“Nuns and Their Musical Instruments in Eighteenth-Century Vienna”

In 18th-century Vienna, nuns performed oratorios and other musical entertainments for their own enjoyment and to entertain the Habsburg family. For such performances and for proper conduct of the services musical instruments were needed. Newly uncovered musical and documentary evidence provides information about the instruments used in the convents and about the training and accomplishment of the performers. Evidence concerning musical instruments suggests that when the needs of the music came into conflict with regulations concerning the enclosure of convents, the music took precedence. In 1708 the Ursuline convent paid 100 florins for a new organ. Reports concerning the illness of the convent's nun organist in 1712 suggest that the organ was small and that it might have been made by a member of the Römer family. Reports from the same convent describe nuns playing organ, harpsichord, lute, violin, and viola da gamba. Musical evidence from this convent and others confirms that these were the instruments of choice in Viennese convents.

An inventory made of the contents of the Königs kloster in 1782, when most of the convents were dissolved, lists a variety of keyboard instruments. Other evidence from this time reveals that several convents were still using stringed instruments. Anti-clerical documents complain of nuns playing stringed instruments and trumpet (very badly), but I have as yet seen no other evidence of Viennese nuns playing the latter, although nuns in other convents within the Habsburg lands certainly did so.

Janet K. Page received her PhD in musicology in 1993 from Duke University with a dissertation on *Wind Instruments in the Music of Joseph Haydn: Studies in Orchestration, Compositional Process, and Musical Structure*. She is a specialist in Classical-period Vienna, organology, and historical performance, and her articles and reviews have appeared in *Early Music*, *The Musical Times*, the *Journal of the Historic Brass Society*, and elsewhere. Dr. Page is also active as a performer on Baroque and modern oboes. She holds a Master of Music degree in Oboe Performance from the University of Toronto, where she studied with Harry Sargous and Melvin Berman, and she studied Baroque oboe with Sand Dalton. She was editor for instruments and performing practice for the second edition of *The New Grove Dictionary of Music and Musicians* (2001) before joining the faculty of The University of Memphis in 1998, where she is an Associate Professor.

Monday afternoon, May 22, 3:50-4:20 – Pardee Lab

Christina Linsenmeyer
Washington University, St. Louis
“Competing with Cremona: Violin Making Innovation in Nineteenth-Century Paris”

Nineteenth-century Parisian violin makers worked at improving their new French violins in order to compete with old Cremonese violins, such as those of Stradivari, Guarneri, and Amati. This phenomenon occurred at a time when the Italian instruments were being hailed as superior to new French violins. The nineteenth-century French makers strategized to surpass classic tradition through their scientific experiment and invention. Evidence for this trend is found in documents that include sound trials at the *Académie des Beaux-Arts*; musical instrument patents at the *Institut national de Propriété Industrielle*; and reports about violin making competitions and exhibitions at the Industrial Fairs. From this evidence, it is possible to consider changes in violin making’s discursive formations, including its actors and institutions; values and practices; and the increased importance of the roles of science, industry, and commerce.

Christina Linsenmeyer is from Baltimore, Maryland, and has a BA with honors from Colgate University (1993) and a Certificate in Violin Making and Restoration from North Bennet Street School in Boston (1996). She has worked as a violin maker in Boston and Chicago. Currently, she is a Doctoral Candidate in Musicology at Washington University in St. Louis. She anticipates completing her dissertation, which concerns historicism and the cultural history of violin making in nineteenth-century Paris, by May 2007. She has conducted dissertation research in London, Paris, Brussels, and Antwerp. Her publications concern Medieval manuscripts, Renaissance emblem books, Blues, Jazz, and graduate education. In addition to her studies, she is involved in graduate student leadership at the national level (most recently with the Woodrow Wilson Foundation’s PhD education reform initiative), and she plays viol, and Baroque and modern cello. Christina last presented at an AMIS conference in 1996 (Vermillion) when she was a Gribbon Award recipient.

Monday afternoon, May 22, 2:15-2:45 – Concert Hall

John Koster

National Music Museum, The University of South Dakota

“Clavichord and *Clavecimbel* Making in Sixteenth-Century Antwerp: an Overview”

At the beginning of the sixteenth century, stringed-keyboard instruments were made in Antwerp and elsewhere in northern Europe as the occasional sideline of organ builders and cabinetmakers. Increasing literacy and improved economic conditions, however, were making instruments accessible to larger segments of the upper and middle classes, including women. The smaller, less expensive instruments, clavichords and virginals, came to dominate the market: very few “grand” harpsichords were made before the end of the century. By the 1520s, there were at least two specialized workshops producing clavichords in Antwerp, which was becoming the major economic center of northern Europe. By the 1530s and 40s there were several more workshops, together producing an estimated 250 instruments per year, now primarily *clavecimbels*, that is, virginals. The methods of mass production and marketing later applied by the Ruckers family were developed by the Antwerp makers of this era, in which Joos Karest was the dominant figure. In addition to the local market, instruments were exported from Antwerp in all directions, to Germany, England, Holland, the Iberian peninsula, eventually even to South America.

The craftsmanship of the two surviving Karest virginals of 1548 and 1550 is of an extraordinarily high standard. With angled polygonal cases, their basic stylistic conception was Gothic. By the 1560s, under Renaissance influence, the plainer rectangular form of virginal was adopted. The costs of producing these instruments was lower because of their simpler construction, less expensive materials, and printed-paper rather hand-painted decoration. Thus, they become even more affordable. The *spinett*, *muselar*, and mother-and-child types of virginals, as well as all the major stylistic and structural characteristics of Ruckers harpsichords were fully developed by the time Hans Ruckers began making instruments as a master in 1579. Despite the very difficult political and economic conditions, he was able to maintain the high standards of his predecessors and even to introduce some final refinements, which he handed down to his sons.

Monday afternoon, May 22, 2:45-3:15 – Concert Hall

Darryl Martin

Edinburgh University Collection of Historic Musical Instruments

“The Early Flemish Clavichord:

Reconstructing an Instrument after a Portrait by Jan van Hemessen, Antwerp about 1530”

Although there are no extant examples, it is clear from surviving images that there was a distinct school of Flemish clavichord-making during the first half of the sixteenth century. There are about a dozen paintings or engravings which show these instruments, often (but not exclusively) in symbolic settings. The use of images to reconstruct instruments which do not survive can be an approach with many difficulties and pitfalls, but one image in particular – that painted by Jan van Hemessen, now in the Worcester (Mass.) Art Museum – is, despite a seemingly unpromising angle of depiction, an entirely realistic view from which a reconstruction can be made within tight tolerances. This paper will discuss the corpus of images as a whole and the van Hemessen painting in particular and will examine two surviving later instruments which may be directly related to the early Flemish school. The author will present his reconstruction of the clavichord depicted by van Hemessen with a discussion on how various confusing features seen on the painting were deliberate and essential construction techniques.

Darryl Martin was born and initially educated in Perth, Western Australia, before moving to Britain in 1986. In Britain he worked as a professional instrument maker, moving to Edinburgh in 1989. In 2003 he was awarded a PhD from the University of Edinburgh for his thesis “The English Virginal.” After many years as a cataloguer and assistant at the Edinburgh University Collection of Historic Musical Instruments he was appointed Curator of the collection in 2004. Darryl regularly gives papers at conferences and has had articles published in various journals, in Britain, continental Europe, and the United States. In addition to his teaching and curatorial work he is undertaking a transcription and edition of the Talbot Manuscript, currently nearing completion, and he continues to make instruments as time allows.

Monday afternoon, May 22, 3:20-3:50 – Concert Hall

Malcolm Rose
Lewes, East Sussex, England
“Making a Karest Virginal”

The two virginals by Joes Karest, dated 1548 and 1550, are the earliest surviving Flemish keyboard instruments. Malcolm Rose will describe the process of making his copy of the 1550 virginal, which is being presented at this meeting, and will show detailed photographs of the 1548 instrument, which still has its original outer case. He will also discuss questions of pitch and stringing which these two similar but different instruments raise.

Malcolm Rose graduated from Trinity College of Music in 1969. After a period teaching and working as an organist, he trained as a harpsichord maker in the John Feldberg workshops, later setting up on his own. He mostly makes English-, French- and Italian-style instruments, with a particular interest in the sixteenth and seventeenth centuries.

Monday afternoon, May 22, 3:50-4:20 – Concert Hall

Susan E. Thompson

Yale University Collection of Musical Instruments

“The Significance of Contest, Dance, Improvisational and Extemporaneous Activity in the Decoration of a Double Virginal by Johannes Ruckers, Antwerp, 1591(?)”

One of the oldest instruments in the Yale University Collection of Musical Instruments is a double virginal by Johannes (Hans) Ruckers that is believed to date from 1591. The larger instrument is a *muselaar* at 8' pitch; the smaller, an ottavina at 4' pitch slips into the left side of the larger. This so-called mother/child (*moeder/kind*) virginal bears extensive decoration in the form of painted scenes on the lid, keywell, and divided left panel of the *muselaar*; on the interior of the fallboard providing access to the ottavina; and on all four sides of the ottavina's case. There is a hierarchy to the placement of these painted panels that underscores the supremacy of heavenly deities to earthly mortals, of aristocracy and bourgeoisie to peasantry, and of adults to children. This paper examines the allegorical significance of the paintings while seeking to identify a common bond among them. The portrayal of one of the best known feats of musical skill from Greek mythology in combination with contemporaneous activities requiring talent, imagination, and a patent familiarity with dance suggests that the instrument may have been commissioned by someone engaged in the creative arts – perhaps an artist, composer, or other such individual of means.

Susan E. Thompson trained as an oboist and played in symphony orchestras at home and abroad before becoming professionally involved with the care and preservation of historical musical instruments. She has served as Visiting Curator of Musical Instruments to the Music Department at Harvard University and is currently Curator of the Collection of Musical Instruments at Yale. Her publications tend to reflect her interest in wind instruments, their history and design as well as the materials from which they are made.

Sonia Lee, a laureate of the Concours de Musique du Canada, has appeared as soloist, duo-keyboardist, and chamber musician in North America, Europe and the Far East. Praised by critics as “a soloist who acquitted herself admirably in her performance” and for her “very high standard of playing,” she has been featured at festivals in the US, Canada, and Italy, and has played with numerous ensembles which include La Donna Musicale, Concerto Urbano, Rome Festival Orchestra and Opera, Sinfonia da Camera, Les Jeunes Virtuoses de Montréal and Musicerend Gezelschap. With a strong interest in compositions for two harpsichords, she is currently preparing editions of newly discovered two-harpsichord works by two eighteenth-century German composers, Peter August and Georg Christoph Wagenseil, and has delivered premiere modern performances of their works. She is also participating in the world premiere CD recording of *The Seven Psalms of David*, vol. II, by Antonia Bembo with La Donna Musicale. Ms. Lee holds degrees in Early Music from McGill University in Montréal and is a Fellow of the Trinity College London. Her teachers have included Charlotte Mattax, Hank Knox, Kenneth Gilbert, Luc Beauséjour, and Joyce Lindorff. She is currently pursuing two doctoral degrees in Harpsichord Performance and in Musicology at the University of Illinois. As a teaching assistant at the School of Music, she is a tutor of History of Western Music and applied harpsichord and is the director of the Collegium Musicum.

Monday afternoon, May 22, 5:30-6:00 – Concert Hall

Ben Harms
New Marlborough, Mass.

“The *Schalltrichter* in German Timpani of the Eighteenth and Nineteenth Centuries”

A common component of timpani fabricated in Germany in the eighteenth and nineteenth centuries is the *Schalltrichter*. This was a piece of metal (usually copper) formed in the shape and size of a trumpet bell and attached to the air hole found at the bottom of the timpani kettle, projecting upward towards the skin. Because it was inside of the kettle it was not visible to the casual observer. The presence of a *Schalltrichter* (sometimes called *Trichter*, *trompetenartige Trichter*, or *Trompete*) is mentioned in at least twelve different German printed sources from 1738 through 1929. In addition, the present writer has seen in person or in photos at least forty sets of timpani where a *Schalltrichter* is either present or clearly was earlier (from the presence, for example, of solder marks at the air hole).

Some of the written sources are brief, some extensive. They are found in J.P.Eisel, *Musicus autodidactus* (1738); J.A. Hiller, ed., *Wöchentliche Nachrichten und Anmerkungen* (1768); G.J.Vogler, *Data zur Akustik* (1801); Gottfried Weber, in the *Allgemeine musikalische Zeitung* (1817); Gustav Schilling, *Universal-Lexicon der Tonkunst* (1837); Gottfried Fink, in *Allgemein Encyclopädie der Wissenschaft und Kunst* (ed. Ersch and Gruber, 1840); Chr. Fr. Reinhardt, *Der Paukenschlag* (1848); Eduard Bernsdorf, ed., *Neue Universal-Lexikon der Tonkunst* (1861); Georg Fechner, *Die Pauken und Trommeln* (1862); Hermann Mendel, ed., *Musikalisches Conversations-Lexikon* (1877); Ernst Pfundt, *Die Pauken*, 2nd ed. (1880); Hugo Riemann, *Musiklexikon*, (first ed., 1882, through the eleventh ed., 1929). This writer has found no mention of the *Schalltrichter* or its equivalent in English, French, or Italian sources of the same period.

The ubiquity of the *Schalltrichter* in eighteenth- and nineteenth-century German timpani may come as a surprise to many. An even greater surprise is that it apparently increased in size and complexity toward the end of this period: Fechner (1862) describes a *Schalltrichter* the size of a French horn bell which almost reaches the skin (The Metropolitan Museum of Art, N.Y., has such a set), while Mendel describes a bell of similar size, but which has in addition three “feathers” soldered underneath the bell (an example exists in Nuremberg). An intriguing *Schalltrichter* is found in an instrument at the Smithsonian Institution - a copper goblet, exquisitely shaped and hammered. Timpani makers and their customers clearly felt that the *Schalltrichter* had an important acoustic function, since they were not visible to the naked eye.

Ben Harms has been involved in the performance of early music since the mid-1960’s. He is a member of the Naumburg Award-winning ensemble *Calliope*, and has performed with the Metropolitan Opera Orchestra since 1968. He was a Fulbright scholar to Germany in 1970-71, and fabricated his first set of timpani in 1982.

Tuesday morning, May 23, 9:00-9:30 – Pardee Lab

Darcy Kuronen
Museum of Fine Arts, Boston
“*Dangerous Curves: Creating a Blockbuster Show of Guitars*”

The exhibition *Dangerous Curves – Art of the Guitar*, held at the Museum of Fine Arts, Boston, from November 2000 to February 2001, provided many pleasant surprises, both for the MFA and for me personally as the organizing curator. Large museum exhibitions with musical instruments as a subject are relatively rare, and the MFA had never before mounted such a show. The Museum was concerned about how it would fare in offering a topic that was so untested, especially one that included objects so seemingly un-museum like as electric guitars. Ultimately, though, everyone at the MFA (from the administration down to the parking attendants) was tremendously excited about the event, and the public responded with equal enthusiasm, as did the press. An overview of the exhibition will be presented, including the planning that went into it and a few of the interesting behind-the-scenes stories that resulted.

Darcy Kuronen has worked for the past twenty years with the collection of musical instruments at the Museum of Fine Arts, Boston, where in 2000 he organized the critically acclaimed exhibition, *Dangerous Curves: Art of the Guitar*, celebrating the diversity of guitar design over the past four centuries with 130 rare instruments from private and public collections. He is also author of the exhibition’s award-winning catalogue of the same name. Kuronen additionally serves as volunteer curator for the collection of historical instruments owned by Boston Symphony Orchestra. He attended the University of South Dakota in Vermillion, where he received his undergraduate degree in harpsichord performance and the Master of Music degree with concentration in the history of musical instruments. A specialist in early American instruments, he has written several articles and lectured widely on this subject. His article “The Musical Instruments of Benjamin Crehore,” published in *The Journal of the Museum of Fine Arts, Boston*, was awarded the 1991-92 AMIS Frances Densmore Prize.

Tuesday morning, May 23, 9:30-10:00 – Pardee Lab

Michael Latcham
Gemeentemuseum, The Hague, The Netherlands
“The Presentation of Musical Instruments to the Public”

The presentation of musical instruments to the public can take numerous forms. I would like to describe the presentations in which I have been involved in my time at the Gemeentemuseum in The Hague. The first presentation was only of Western instruments. The idea behind the exhibition was to show the best of the collection, chosen on qualities like integrity and beauty, with plenty of space around each part of the exhibit to allow the instruments to speak for themselves. The idea was to ask the visitor simply to look and wonder, a contemplative idea. The exhibit as a whole was received with much enthusiasm by the national press, by the director of the museum and by a number of well-known artists. Nevertheless, public opinion and the changing face of the museum soon demanded a different concept, one in which more instruments could be seen and more information given. The result was a broader exhibition based on the idea of a *Kunst- & Wunderkabinett*. The idea was nonetheless still esthetically grounded. Next came a temporary exhibition based on the ideas of the French encyclopedists and the French Revolution. A guillotine (used in Holland during the French occupation) was displayed, mounted on a scaffold. The idea was both to shock and to give information. The last exhibit took place in the basement of the museum and was designed again on the *Kunst- & Wunderkabinett* idea, this time more rigorously. Eleven cabinets each showed one instrument type - both Western and non-Western. The idea was to show, for instance, all the guitars in the Museum's collection.

All these exhibitions were designed to show something, that is to educate the visitor, either at the highest level in which the forms of the instruments themselves could inspire or at a more mundane level at which information was imparted. None of the exhibitions was intended to allow the visitor to hear anything. To hear something, in my view, distracts the visitor from looking at the instruments. It is the instruments which are displayed, not the music they make. Perhaps this somewhat radical idea has contributed to the fact that there is now no permanent exhibition of musical instruments in our museum.

Tuesday morning, May 23, 10:00-10:30 – Pardee Lab

Monika Lustig

Stiftung Kloster Michaelstein, Germany

“Considerations for a New Exhibition of Musical Instruments in the Context of the Monastery
Architecture and Gardens in the Stiftung Kloster Michaelstein”

The internationally known Music Institute for Performance Practice and the Landesmusikakademie Sachsen-Anhalt are housed in the former Cistercian monastery Michaelstein. The monastery from the twelfth century belongs to the so-called *Straße der Romanik* which is a tourism route in Saxony-Anhalt. Thus, many of the visitors to Michaelstein are not music specialists. We will take this into consideration by integrating musical instruments and subjects about music history into the forthcoming new presentation of the building complex, protected as a monument, and the reconstructed monastery gardens. Primarily, one hopes for considerable synergistic effects from combining aspects of the musical instruments, the architecture, and the gardens. On one hand, the Michaelstein exhibition about the Cistercian order and the monastery architecture will have its own specific character distinguished from that of neighboring Cistercian monasteries. On the other hand, with this conception it will be possible to familiarize a non-musical public with musical instruments and music history.

Besides this, there will also be a separate exhibition area only with musical instruments. This will provide specific educational possibilities for participants in the courses of the Institute for Performance Practice and the Landesmusikakademie Sachsen-Anhalt. Thereby the attractiveness of the Stiftung Kloster Michaelstein as a seminar location can increase. The new exhibition will be particularly aligned with pedagogical aspects, whereby it can be of use for a non-musical public as well.

This paper will examine the possibilities and advantages afforded by the combination of musical instruments with other museum areas. In addition the difficulties, problems, and restrictions connected with this new conception will be discussed.

Monika Lustig studied musicology at the Martin-Luther-Universität in Halle from 1981 to 1986. She is the Curator of the musical instrument collection at the Stiftung Kloster Michaelstein – Musikinstitut für Aufführungspraxis where she has worked since 1986. In the Michaelstein Institute she also organizes international conferences about historic musical instruments every year and edits the publications of the resulting conference reports. Her research interests include organology and musical archaeology. She has published articles in the *Michaelsteiner Konferenzberichte* and *Studien zur Musikarchäologie*.

Tuesday morning, May 23, 10:45-11:15 – Pardee Lab

Jeannine Lambrechts-Douillez
'sGravenwezel, Belgium
“Musical Instruments as Part of a Large Non-Musical Collection”

During the second half of the twentieth century the attitude towards treatment of musical instruments changed and can be regarded as an aspect of the growing consciousness of the need for preserving our national heritage. Each action should be regarded in the context of its time and every generation has a different approach to the problem of preserving that particular part. Although for many people instruments are only considered as tools, they deserve the same treatment as paintings, sculptures, etc. Today's modern techniques can serve the goal of preservation, but personal involvement must remain the main concern of those in charge with an open mind for exchanging experiences.

Jeannine Lambrechts-Douillez, who received her doctorate from the State University of Ghent in 1957, is Curator Emeritus of the Archaeological Museums of the City of Antwerp, where she served for thirty-eight years in the Museum Vleeshuis, caring for its important collection of Flemish harpsichords. She is a founding member of the Ruckers Genootschap and has published documents about the Ruckers family and other important Antwerp harpsichord and organ builders in the series she edited, *Mededelingen van het Ruckers Genootschap*, thereby providing historians with access to accurate archival information. This was possible only with painstaking research in the general files preserved in Antwerp archives. Dr. Lambrechts-Douillez was a founding member of CIMCIM and served that organization as Treasurer (1960-1974) and Chairman (1983-1989). In 1993 she was presented with the Curt Sachs Award by the American Musical Instrument Society “in grateful recognition of [her] eminence and achievements as scholar, curator, and administrator.” She is also a recipient of the prestigious Benediktspreis of the City of Mönchengladbach.

Tuesday morning, May 23, 11:15-11:45 – Pardee Lab

Sara A. Hook
Indiana University School of Informatics, Indianapolis
“*The Virtual Early Flute*:
New Ways to Present Music History and Early Musical Instruments Using Technology”

Digital media technologies and web design principles can be utilized to make the history of musical instruments more accessible and meaningful for scholars, musicians, teachers, collectors, and the public. The project reflects the presenter’s passion for music and her frustration with the limitations of existing web sites for early musical instruments. In Fall 2004 she worked with a team of graduate students to develop a prototype for *The Virtual Early Flute* web site. This comprehensive and engaging site includes a history of early flutes, fingering charts, bibliographic citations and links, an interactive timeline, descriptions, measurements and numerous images of the instruments, including 360-degree and individual-section views. These images convey depth and shape, allowing full appreciation of the beauty of the wood and the craftsmanship. There is also an audio clip of each instrument playing music composed during the time period when the instrument was made. The current phase of the project is to add content, images, and audio from private and public collections, supported by a grant through the Lilly Endowment. This phase of the project was informed by a recent visit to The Bate Collection of Musical Instruments in Oxford, England. The presentation will describe *The Virtual Early Flute* project, demonstrate the web site, discuss current and future phases of the project and consider how this approach could be used for a variety of musical instruments and other music artifacts.

Sara Anne Hook is Professor and Associate Dean for Academic Affairs and Undergraduate Studies at the Indiana University School of Informatics in Indianapolis, Indiana, as well as Adjunct Professor of American Studies in the School of Liberal Arts. Formerly, she was Head Librarian at the Indiana University School of Dentistry and Associate Dean of the Faculties for IUPUI. She holds a BA in History and an MLS from the University of Michigan, an MBA in Finance from the Kelley School of Business, Indiana University, and a law degree from the Indiana University School of Law, Indianapolis. She was admitted to the bar in Indiana in 1994. Dean Hook is a member of the American Intellectual Property Law Association, the Indiana State Bar Association, the American Association for State and Local History, and the American Musical Instrument Society. She plays a variety of musical instruments, including flute, harp, viola, saxophone, psaltery, and viola da gamba. She studies Baroque flute with Professor Barbara Kallaur of the Early Music Institute, Indiana University School of Music, and has a lovely collection of flutes from the 1800s. She is currently pursuing her Certified Music Practitioner credential from the Music for Healing and Transition Program (MHTP).

Tuesday morning/afternoon, May 23, 11:45-12:15 – Pardee Lab

Ruy Alonso Guerrero Ramirez
Mexico City

“The Francisco García Ranz Collection: Description and Registration”

Since 1970, Francisco García Ranz, engineer and Mexican jarocho musician, has collected various kinds of musical instruments during travels in Mexico, Cuba, and other countries. The collection now includes sixty instruments, which the author has been independently registering, cataloguing, and documenting since 2002. The collection includes several plucked and bowed cordophones, mostly jarocho instruments from south Veracruz, as well as an important *arpa grande* (big harp) from the Planeco region at Mexico and a double bass from Cuba. Some other instruments are *chirimias*, a marimbol, and a rain stick. Located in Tepoztlán in the State of Morelos, the collection is particularly important for researchers in Son Jarocho. Some of the ethnological instruments are 60 to 80 years old, while some others are important because they belong to early stages of traditional Mexican lutherie. The collection has various aspects: on one hand, it includes “museum” instruments that are not played any more and will not be altered. On the other hand, there are instruments with excellent sound that are still played.

Ruy Guerrero, born in Mexico City, is a chemical engineer graduated from the Universidad Iberoamericana. In this capacity he has worked at the Procter & Gamble research facility in Newcastle, England, in 2005. Now he works with a consulting company at Mexico City, Logos S.A., and he is developing projects dealing with nature and ecological matters. His thesis was on *The Determination of Quality for Shellac for High Quality Varnishes for Musical Instruments*. He is also a builder of several types of musical instruments from Mexico and the world beyond, including violins, guitars, mexican jaranas, and psalteries. He first studied lutherie with Anastasio Utrera, then with Miguel Zenker and Pedro Cisneros. At present he continues to study lutherie with Miguel Zenker and receives advice from Daniel Guzmán. As a luthier with scientific training, Mr. Guerrero has participated in several research projects and has created the “World Data Base for Lutherie and Organology *Praetorius*” to be published soon. He is owner and operator of the lutherie workshop *Akbal* in Mexico City. He is member of the Violin Society of America, of the Galpin Society and member by Gribbon Award 2005 of the American Musical Instrument Society. As well he is an active member from ICOM-CIMCIM since year 2006. A great enthusiast of Mexican music and traditions, Ruy Guerrero is member of several jarocho groups in which he plays Leona (a type of acoustical bass) and jarana. He has participated in several organological and musical forums in Mexico, including the *Cathedra Jesús Romero* (2004 and 2005) and the *Second Forum for Mexican Music: The Musical Instrument and its Imaginarium*. He has also organized events in Mexico, including the second and third “Encounter Music Wood Lutherie,” and has participated in several international activities, including the International Symposium of Musical Acoustics (Mexico, 2002), the Curs d’Organologia organized by the Music Museum at Barcelona (2003), the International Advanced Course on Musical Acoustics (Italy, 2005), and last year’s AMIS meeting (Las Vegas), for which he received the Gribbon Award.

Tuesday afternoon, May 23, 2:15-2:45 – Pardee Lab

Christiane Rieche

Händel-Haus, Halle an der Saale

“An Inventory of Musical Instruments in Local Museums as a Source for Local Music History”

It is possible to compare our knowledge of local music history with the results of an inventory of musical instruments in 420 museums in the German states of Sachsen, Sachsen-Anhalt and Thuringia – the so-called region of *Mitteldeutschland*. (This inventory excludes the specialized collections in Michaelstein, Halle, Leipzig, Eisenach, and Markneukirchen). The small, mid-size, and larger collections in villages, cities, and castles have a more or less unconscious origin. Nevertheless, we are able to observe urban, rural, and courtly musical and cultural influences, as well as traces of regional instrument-making traditions and interest in foreign cultures. Examples of such aspects of our inventory are the focus of this paper.

Christiane Rieche, born in Halle, studied musicology there at the Martin-Luther-Universität, receiving her degree in 1990 with the thesis *Musikinstrumente und Klangwerkzeuge der Lausitzer und Billendorfer Kultur in der Eisen- und Bronzezeit*. Since then, she has been Curator at the Händel-Haus in Halle in the areas of scholarly and museum-pedagogical presentation, as well as further development of the musical instrument collection. She has collaborated in the research project about central German harmonium making; led the compilation of a musical-instrument inventory in Saxony, Saxony-Anhalt, and Thuringia; organized conferences and exhibitions; and reinstalled the permanent exhibition of historical musical instruments in the Händel-Haus.

Tuesday afternoon, May 23, 2:45-3:15 – Pardee Lab

Michael F. Suing
University of South Dakota

“A Survey of Plains Indian Musical Instruments in South Dakota’s Historical Repositories”

The role of musical instruments as primary cultural indicators can be clearly seen by the import placed upon them both in the ceremony and in the everyday life of Native American people. The strides made to preserve the cultural heritage of Native American people have been many, ranging from the American Indian Religious Freedom Act of 1978 to the Native American Graves Protection and Repatriation Act (NAGPRA) of 1990. The aforementioned legislation codified the role cultural institutions play in the relationship between indigenous peoples and the preservation of the traditions and objects sacred to their cultures. Musical instruments are among those items considered sacred by many native people. The purpose of this project is to survey and to document the remaining musical instruments of Plains Indian origin in the collections of South Dakota’s museums and historical societies. It is the goal of the research, in addition to documenting the living tradition of Plains Indian instrument making, to compile a list of institutions in South Dakota that have accepted the responsibility of housing Native American musical instruments. This project emphasizes the role these instruments play in educating the public, as well as providing another avenue by which society can learn to understand and to appreciate American Indian history and culture.

Michael F. Suing, a South Dakota native, who received the BLS degree at The University of South Dakota, continues his studies there, working on a Master of Music with concentration in the history of musical instruments, a degree offered by The University of South Dakota through the Department of Music in the College of Fine Arts together with the National Music Museum. His long-term research endeavors place emphasis on Northern Plains Indian frame drum making rely heavily upon field study and collecting of oral histories.

Tuesday afternoon, May 23, 3:30-4:00 – Pardee Lab

Ardal Powell
Hudson, N.Y.

“Change Lays Not Her Hand: Organology and the Museum”

Organology’s inherited conceptual framework orients the discipline’s attention inward, focusing on taxonomy, conservation methods and documentation, and a metanarrative of progressive development borrowed from studies of biology and technology. The field inherits an ontology that privileges artifacts over practices, description and measurement over analysis, the past over the present, and the “universal” over the everyday – priorities that support, and are supported by, the prestige of institutional instrument museums formed in a climate of intense national, colonial, and class ideologies a century ago.

Meanwhile musicologists have begun to raise their gaze from textual studies and to recognize music as a fundamentally social enterprise. The *New Grove* now characterizes musical instruments as “among the most highly dynamic, interactive and evocative of artefacts” and their study as elucidating “the complex, ever-changing relationships among musical style, performing practices and evolution of instruments.” Recent publications and exhibitions devoted to instruments have embodied a consciousness of musical experience seemingly at odds with museological modes of thought.

This paper attempts to locate this shift from inward to outward orientation and from static to dynamic ideals in an explicitly theoretical context, referring to recent studies of music as culture, of the sociology of technology, and of the production of knowledge itself. It suggests that the emergent new approach provides not merely an interesting social background for organological work but an inevitable line of inquiry for everyone interested in the instruments of music.

Ardal Powell, President of Folkers & Powell, Makers of Historical Flutes, was the recipient of AMIS’s 2005 Bessaraboff Prize for his book, *The Flute* (Yale University Press, 2002). He received the PhD in Music from Cambridge University in 2004.

Tuesday afternoon, May 23, 4:00-5:30 – Pardee Lab

Panel Discussion:

The Study of Musical Instruments in the Present and Future

J. Kenneth Moore,
The Metropolitan Museum of Art, New York,
Moderator

with
Eszter Fontana (Leipzig)
Alicja Knast (Plymouth, U.K., and Poland)
Renato Meucci (Milan)
Grant O'Brien (Edinburgh)
and
Ardal Powell

Tuesday evening, May 23, 8:00 – Concert Hall

Recital
Susan Alexander-Max,
London, England,
playing works of C.P.E. Bach, Haydn, and Mozart
on the Museum's clavichord by J. P. Kraemer and Sons, Göttingen, 1804
and Tangentenflügel by F.J. Spath & Christoph Friedrich Schmahl, Regensburg 1784

Twelve Variations on the *Folie d'Espagne*
Fragment of a Suite, K.399
Sonata in A flat, Hob. XVI/43

C.P.E. Bach (1714-1788)
W.A. Mozart (1756-1791)
F.J. Haydn (1732-1809)

Intermission

Sonata in F, Hob. XVI/29
Sonata in G minor
Sonata in D major, K.576

Haydn
C.P.E. Bach
Mozart

Susan Alexander-Max was born in New York City and is recognised internationally as a leading fortepianist and clavichordist specialising in the music of the late eighteenth and early nineteenth centuries. Having graduated from the Juilliard School of Music with honors, Susan won a scholarship to study with Ilona Kabos in London, where she now resides. She was finalist in the International Bach Competition and has performed, recorded, and taught extensively throughout the United States, the United Kingdom, the Far East, and Europe. A featured performer on international radio and television, she has played, as soloist and chamber musician, in festivals, museums and galleries, universities, and music colleges world-wide, including such prestigious venues as the Cheltenham International Festival of Music; Queen's Festival of Early Music, Belfast; the English Haydn Festival; the Haydn Festival, Eisenstadt, Austria; the Vleeshuis Museum, Antwerp; the Prague Spring International Festival of Music, and The Metropolitan Museum of Art, New York City. She has given the premiere performances of the *Piano Quartet* by the Russian composer Leonid Feygin, *Figures* and *Tetrapteron* by the Swiss composer Jean-Jacques Dünki, *January 1795, Spring, Stanzas for Music*, and *So We'll Go No More a Roving* by Rachel Stott of the U.K., and *Eduardova Rides the Tram* by the New Zealand composer, Glenda Keam.

Susan directs the chamber ensemble, *The Music Collection*, and the educational project, *Music in Schools*. In great demand as specialist in early keyboards, she gives masterclasses and lecture recitals throughout the world. She has taught at universities in England, Ireland, the United States, and China and has also participated in the masterclass series at the Juilliard School of Music, New York City, and the Conservatoire National Supérieur de Musique et Danse, Paris. As recording artist, Susan has recorded CDs of the chamber music of Hummel and the early piano sonatas of Clementi. Her latest CD, the complete keyboard works of Domenico Zipoli, volume 2, was recorded in conjunction with The Metropolitan Museum of Art, New York, on their Cristofori fortepiano of 1720. Susan has been presented on British, American, and European radio and television, including BBC Radio 3, England. Of her performances, Peter

Burwasser has written in *Fanfare* magazine that “She plays her beautiful fortepiano with an intuitive sense for the color and tonality of the instrument, which only enhances the élan of the music.”

About the instruments:

The clavichord by Johann Paul Kraemer and Sons, Göttingen, 1804 (NMM 3335, Rawlins Fund, 1983), is a typical example from the final stage of historical clavichord making in northern Germany. It is unfretted, with compass FF to a³ (65 notes), and is double-strung at unison pitch throughout the compass, with a third set of strings at octave pitch from FF to A. Late clavichords, such as this, demonstrate the continued vitality of the clavichord as a musical medium well into the classical period.

The *Tangentenflügel* by Franz Jakob Spath & Christoph Friedrich Schmahl of Regensburg (NMM 4145, Rawlins Fund, 1987) bears a now nearly illegible inscription stating it to have been made in 1784. Comparison with other Spath & Schmahl instruments confirms that it is indeed from this period and is among the earliest examples of the makers’ extant works. The compass is FF to f³ (61 notes). There are four devices to change the tone: two hand stops, for the harp and moderator, and two knee levers, for *una corda* and raising the dampers. The wooden striking surfaces of the tangents, originally bare, were once covered with leather in an apparent attempt to make the instrument sound like a conventional late-eighteenth or early-nineteenth-century piano. This later accretion has been removed so that the unfamiliar but captivatingly beautiful tone characteristic of the *Tangentenflügel* can again be heard, as well as the remarkable mutations that are brought into effect by the hand stops and knee levers.