

The Stearns Newsletter

The Stearns Collection of Musical Instruments
School of Music, The University of Michigan

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Greetings from the Director

Greetings, dear Friends of the Stearns Collection of Musical Instruments! With this newsletter, I would like to report to you some current activities of the collection. The collection's tour and outreach programs are flourishing under Ms. Carol Stepanchuk's energetic leadership — to contact Ms. Stepanchuk for guided tours, email her at stearns@umich.edu or telephone (734) 936-2891. In the summer months of 2005, two exciting projects took place. The first was an updating of the collection's storage system. Having located a type of plastic and acid-free boxes suitable for archiving, the collection purchased many copies and used them to store small musical instruments. Until now, they were wrapped with protective materials and sat freely on storage shelves. The Stearns/UM gamelan, the Venerable Lake of Honey, was retuned by Mr. Tentrem Sarwanto and Mr. Sutarjo Hartapandaya, two experienced gamelan maker-tuners from Java. For a fascinating report on this historic event, see Ms. Vera Flaig's report on p. 5. Early this year, Ms. Patricia Matusky donated a Burmese harp and a Malaysian rebab to the collection. For a description of the instruments, see essay on p. 3. All in all, the Stearns has had a wonderful and successful 2005. We look forward to another successful year in 2006. We wish you the same.

Stearns/University of Michigan Gamelan Gets a Retuning

By Vera Flaig

The *Kyai Telaga Madu* (the Venerable Lake of Honey), the Stearns/UM gamelan ensemble built in the style of the court city of Surakarta, Central Java, was retuned in the summer of 2005 by two visiting Gamelan tuners, Mr. Tentrem Sarwanto and Mr. Sutarjo Hartapandaya of Java. The last time the



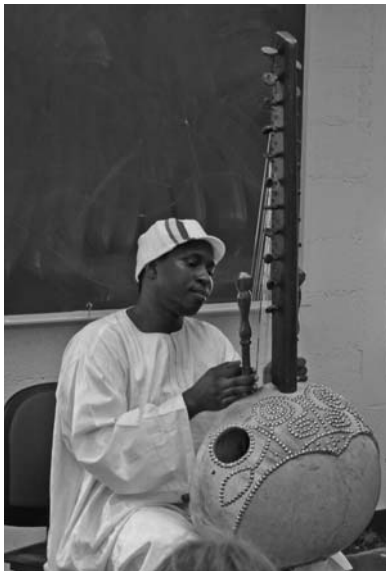
The Stearns/UM Gamelan.

gamelan was tuned was over thirty years ago when Al Suwardi, a gamelan musician, visited Ann Arbor. Gamelan instruments can always be fine-tuned by experienced musicians, but a thorough retuning always needs the finely tuned ears and experience of a gamelan maker. Tentrem had the retuning of the Stearns/UM gamelan cut out for him, as he began his career as a gamelan maker in his father's smithy in Surakarta— it should be noted that Tentrem and Sutarjo tuned not only the UM gamelan in the summer

... see *Gamelan*, p. 5

Virginia Martin Howard Lecturers, Winter 2005

In the fall of 2005, the collection presented two Virginia M. Howard lecture-concerts. The first took place on September 24, when Mr. Mady Kouyate of Ann Arbor presented a lecture-recital on the African *kora* (harp-lute) and its music. A native of



Mr. Mady Kouyate.

Senegal, Mr. Kouyate was born into a long line of court musicians who historically served the Manding kings with music and advices. Plucking sweet melodies and harmonies from the *kora*, Mr. Kouyate sang epic songs on Manding history and aspirations. On November 12, Mr. Christopher Dempsey, the collection's curator, gave a presentation on selected treasures of the collection. Showing the actual objects or with detailed digital pictures, and demonstrating their sounds through recordings, Mr. Dempsey brought the instruments alive. After the presentation, many stayed on to ask questions and examine the featured instruments.



Two 'Treasures of the Stearns Collection': Above, a Natural Trumpet by Johann Carl Kodisch, 1689; Below, a Mokugyo from Japan, ca. 11th century.

Dr. Du Yaxiong, China (January 7), violin bows and violin music by Mr. David Orlin (January 21), and film and film music by Dr. James Wierzbicki (March 18).

Kulintang Music

By Jeff Myers

Ever since my first exposure to Kulintang music, I have felt the need to write a piece of music that captures the essence of the Kulintang. In 1999, I began researching the folk music of the Philippines for source materials for my compositions. In the process, I found two types of Philippine music, one was derived from Spanish music, including *zarzuelas* and Catholic devotional music; the other was indigenous music performed on gongs, flutes, jaw harps and voices. Since then, I found myself listening to the latter over and over again. My favorite type was Kulintang music from the southernmost island of Mindanao.



U-M Kulintang Ensemble.

Kulintang pieces are short: each is about two to three minutes long, fast, and tight. They are traditionally played for entertainment, and players often compete to show their skill. In fact, this virtuoso element attracted me the most because it added an element of excitement that is common to my other favorites, bebop and the classical concerto. The expression of the individual before the group is the essence of both Kulintang music and the concerto tradition. After listening to recordings of Kulintang music, reading about it and playing it at school, it gradually began to find its way into my music.

The focus of the ensemble playing Kulintang music is the *kulintang*, an instrument comprised of seven to eight graduated, bossed gongs which make tones in the middle of the pitch spectrum (i.e. the range in

Southeast Asian Contributions of a Malaysian Rebab and a Burmese Harp

By Patricia Matusky

Collecting and Donating Instruments

A consequence of living and working abroad in different locations for many years is that one amasses a vast array of objects of all kinds. For this writer, an ethnomusicologist who spent many years teaching in Malaysia and Singapore, the collection of musical instruments was a natural addition to the paraphernalia of personal and household items: children's toys, pets, art objects and crafts from many lands as well as computers, books and assorted teaching materials.

Among the items in our household that were moved to several different residences over a period of nearly two decades were a harp from Myanmar and several *rebab*, spiked fiddles, from Malaysia, not to mention two complete Malaysian shadow play ensembles and a multi-drum Malay *kompang* frame drum ensemble. I am pleased to know that the Stearns Collection of Musical Instruments has accepted a donation of the Burmese harp and one of the Malaysian *rebab* from my collection.

The Malaysian Rebab

The early years of my field research (late 70s-early 80s) on the shadow play music of Peninsular Malaysia and the subsequent years of residence and teaching in the country put me in touch with many types of musical-theatrical genres that are performed by the Malays. Typically, the music ensembles of the various Malaysian theatricals consist of drums and gongs along with a single melody instrument, either an aerophone or a chordophone. The spiked fiddle, called the *rebab*, is the chordophone found as the melody instrument in the music for the *makyung* dance drama, the proto-theatrical healing ceremony known as *main puteri* and the art of storytelling called *tarikh selampit*. In addition, a type of Malaysian shadow puppet theater (called *Wayang Melayu* or *Wayang Jawa*), which is strongly influenced by the Javanese

shadow theater, also finds the *rebab* as the primary melody instrument. In these music ensembles, the *rebab* player provides a highly ornamented melodic line, often heterophonically with a vocalist, while the drum percussive patterns and the gong and cymbal colotomic units complete the musical texture.

The Malaysian *rebab* has an elongated, triangular-shaped body carved from hardwood, usually jackfruit wood. The front of the body is covered with a dried membrane that is derived from the lining of the cow's stomach, and is glued around the perimeter of the body, while its back-side is covered with cloth and strands of yarn or other threads. A small lump of bee's wax (called the *susu*, lit. 'milk, nipple') is attached to the upper left side of the membrane in order to mute the sound. A moveable wooden bridge is placed under the strings at the upper edge of the body (near the neck). A long, round fretless neck is attached to the body using a wood spike that runs vertically through the center of the body cavity, while a short foot, attached to the lower end of the wood spike (and body), forms the base of the instrument. When compared with other bowed lutes in Southeast Asia, the *rebab* in Malaysia is a sizeable instrument with an average length (or height) of about 115 cm (45 in.).



Malaysian *rebab*.

The Malaysian *rebab* is held upright on its foot in front of the player who bows the strings with an ornately carved bow made of wood and nylon line (formerly coconut fiber strings). The instrument differs from other *rebab* found in Southeast Asia in that it uses three strings (formerly made of twisted cotton, but today made of wire) that are tuned with three lateral tuning pegs located near the top of the neck. Finally, the instrument is completed by an elaborately carved headpiece (called *kecopong*) located at the top of the

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neck just above the tuning pegs. Usually carved in a bamboo shoot (*pucuk rebung*) design, a typical Malay decorative motif, the headpiece is topped with a pointed finial that is often removable.



Rebab headpiece.

Over the years several existing and newly-made *rebab* were given to me. The instrument donated to the Stearns Collection was made and played by a musician in a *makyung* (Malay dance-drama) troupe from the east coast state of Trengganu who had come to the Science University of Malaysia campus in Penang in 1995 to present a performance. As I was in the process of purchasing the large knobbed gongs and the drums from the *makyung* troupe, the *rebab* player insisted that I also needed the bowed lute to complete the ensemble. He would take no compensation for the instrument, and I pass it along to the Stearns in the spirit in which it was given to me.

The Burmese Harp (*sauñ* or *sauñg-gauk*)

In the early 1990s my husband's work took us to the Republic of Singapore. At this time I was employed as senior lecturer and head of the music department in the LaSalle-SIA College of the Arts in Singapore. With a child enrolled in the International School of Singapore (ISS), we had the opportunity to meet a truly global community of students and parents. It was through our connection with the ISS that one day a parent from that school arrived at the LaSalle College music department with her arms tightly clutching a Burmese harp and a small wooden stand to support it. Her family had received the harp as a gift during a trip to Myanmar, and in 1993, as her family packed to return to Japan, she realized that it was not pos-

sible for her to take the harp. Knowing that I lectured in music, she graciously offered it to me. Naively thinking that I might learn to play it one day, I accepted her gift and, in the end, found this instrument gracing our various homes for several years to come (I never did learn to play it!).

Over the years in Singapore and Malaysia, the harp fared well in the warm and extremely humid climate of the tropics. However, once we returned to the USA to established residence, first in the arid climate of the Central Valley region of California and later in northern Michigan, the harp was situated next to a continuously running humidifier. Even so, the outer surface of lacquer began to dry and crack excessively. Before donating it to the Stearns Collection, I had the harp repaired by Clifton Monteith, a local artist in northern Michigan who works with Japanese lacquer. Clifton not only confirmed that the chipped material on the resonator was indeed lacquer but that it was a type found mainly in Southeast Asia requiring a constant environment of high humidity. The under body of the harp is currently being re-lacquered, this time using Japanese lacquer that will hold up well under nearly any kind of condition.

An instrument associated with the refined aesthetics of the ancient Burmese royal courts, the harp (called *sauñ* or *sauñg-gauk*) is typically played in a chamber ensemble along with a bamboo clapper (*wà*), finger cymbals (*sì*) and a vocalist. Both men and women play the harp as well as sing. The repertory for the harp focuses on various types of classical songs, including those with texts that refer to Burmese historical events or those that are based on particular poetical forms. The singer and the harpist take up the melodic lines, while the bamboo clapper and finger cymbals (played by the singer) provide the elements of time organization and percussive rhythmic patterns in the music.

The harp itself consists of a boat-shaped body or resonator carved from a hollowed-out section of hardwood, while the top of the resonator is covered with deerskin (several sound holes are cut in the deerskin). A piece of naturally curved root of the acacia tree is attached to one end of the resonator and extends up-

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ward to form a gracefully arched arm. An important element in the root is a well-formed leaf pattern at its tip that forms the end of the arched arm of the harp. Typically, fourteen strings of twisted silk or nylon are attached to a bar on the top of the resonator and to the lower part of the arched arm. The strings are stretched and tuned using thick cords tied to the arm with long tassels adorning the ends of the tuning cords. The wooden resonator is covered with several layers of black lacquer, while decorations of gold leaf, semi-precious stones, mother of pearl and ornate lacquer designs enhance the elegant form of this instrument.



The Burmese harp.

The harp donated to the Stearn's Collection has sixteen strings and is somewhat larger in size than the 14-string variety. The length of the body is 86 cm (34 in.) and the overall height is 74 cm (29 in.). This larger-sized harp with a slightly greater tonal range has been used in Myanmar since about 1960 (Murial Williamson, 'Saung-gauk' in *The New Grove Dictionary of Music and Musicians*, 22:333, London, Macmillan, 2001), but the 14-stringed harp is more common. An ornately decorated wooden stand is used to support the harp when not in use.

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of 2005, but also those at Brown University, Tufts University, Smith College, and Wesleyan University during their American tour.

The tuning work of gamelan instruments requires the collaboration of two musicians/instrument makers: one, listening to the tone of each bronze key/bar or gong to assess whether it is too high or too low, and the other making the adjustments by filing or hammering the metal piece. As the main tuner, Tentrem listened to each piece and made the decision about what needed to be done while Sutarjo filed or hammered according to his instruction. At various times in the process, particularly when tuning the *kempul* gongs, both men filed and sanded the instrument pieces.

The entire tuning process began with the tuning of the *gender*, an instrument that features a set of bronze keys/bars sitting over resonating tubes suspended inside a frame. At this point in the tuning process, there is no reference pitch; in other words, the tuners have to tune the *gender* by itself and according to their pitch judgments. To tune the *gender*, the tuners handled one or two key/bars of the instrument at a time, leaving the other keys/bars on the instrument base, and referring to them in terms of their intervallic relationships to the ones being tuned. The keys/bars of the *gender* are attached to the frame of the instrument via a string and separated from each other by tiny pieces of wooden doweling; the removal and restoration of the bars on the frame are labor intensive processes. To listen to the key/bar being tuned, Tentrem would strike it on his knee and then hold it very close to his ear. Two or more of the keys/bars remaining on the *gender* were used as reference points for the one being tuned. If the key/bar needed to sound higher it was filed on the end (essentially shortening the bar); if it needed to be lowered, it was turned over and filed in the center. The files themselves were products of the same smithy that made the gamelan. A flat file was used to file the end while a curved one was used to file the center. After several keys/bars had been filed, Tentrem tested the *gender* by playing standard patterns of gamelan music, clearly demonstrating his

Gamelan, continued from p. 6

skill as a musician. At this point it became evident that there were also some structural problems with the frame of the instrument. One of the resonating tubes had a rattling sound. They investigated and found a stone inside the tube. They took the stone off, and the problem was fixed.

Next, the other keyed/barred instruments, the *sarons* (*demung* and *peking*) were tuned one by one, a process that relied on the retuned *gender*. At this point, all of the keys/bars of the *gender* were removed from the base of the *gender* and used for reference. This was again a most labor intensive process. Since the tuning of the individual keys/bars had to be done outdoor, they were taken outside of the School of Music building for filing, leaving the base of the individual instruments inside the Gamelan Room. Each *saron* key/bar was tuned to its corresponding pitch on the *gender*.

While observing the tuning process, I soon discovered that my Western sense of tuning was very different from Tentrem's Javanese one. When the *saron* note that Tentrem was tuning sounded exactly "in tune" (ringing at the same frequency) with the *gender* one it was being compared to, Tentrem instructed Sutarjo to keep filing it. As demonstrated by Tentrem, the notes of a gamelan ensemble are not meant to be perfectly and exactly aligned with each other in terms of their pitch frequencies. Rather, the pitches are tuned slightly out of alignment so that their overtone relationships create a shimmering effect that is "alive" with timbral possibilities. In fact, when pitches are tuned too perfectly the entire gamelan sounds "dead," one of the problems Tentrem found when he first tested the Stearns/UM gamelan at the beginning of his retuning exercise.

The instruments containing pot-gongs were the next to be tuned. The *bonang*, an instrument that plays the rhythmically elaborate melodic layer was tuned to the *saron demung*; after the first *bonang* was tuned, the second *bonang* was tuned to the *saron demung* and to the first *bonang*. Like the *saron* keys/bars, the pot gongs of the *bonang* were not tuned to match the

exact frequency of their *demung* models. Each gong and each note was tuned first by hammering either inside or outside the pot; then, if more adjustments were needed, the surface of the gong would be filed or sanded. The hammering adjustments were done immediately while additional filing was postponed until all the constituent gongs of a particular instrument could be handled at a same time.

During this phase of the tuning, Tentrem pointed out to me some serious errors made by the previous tuner. There were file marks that had not been sanded, and most importantly, some gongs had been hammered incorrectly. These gongs required a great deal of filing and sanding to not only get them in tune again but to help them resonate more freely and thus create a more pleasing timbre.



Mr. Tentrem Sarwanto and Mr. Surtarjo Hartapandaya of Java tune the gamelan.

The most interesting part of the tuning process was that of the gongs (*kempul*, *sewuk*, and *gong aegung*). Traditionally they are retuned by being "re-fired" at the smithy, a process that cannot be conducted outside Indonesia where there are no gamelan smithy. Thus the hammer and filing method has to be used. It involves, however, more than simple hammering and filing, and the use of a special mud from Java is needed. Tentrem brought some to Ann Arbor, which he applied to either inside or on the surface of the gongs being retuned to diagnose where the instruments needed to be hammered or filed. Explaining the process, Tentrem and Sutarjo told me that their goal for each gong, aside from being in tune in terms of pitch, was to create a smoother ringing tone. By

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applying the special mud on the gongs and by striking difference locations on them, they would find out how the ideal sound could be achieved. When they struck a mud-controlled pot gong at a particular spot and it produced the desired sound, they knew where to hammer the instrument. They would also learn how much filing was needed. As it turned out, some of the gongs needed extensive filing. One took over forty-five minutes of filing before it was “in tune”.



The work continues.

It was an honor and a pleasure to witness Tentrem and Sutarjo’s skillful and artistic tuning of the Stearns/UM gamelan. Both men were enthusiastic about the video recording that I was making. In addition to learning some intricacies of gamelan tuning, I also learned the tuning process was professional, artistic, and social. While Tentrem dictated the pace of the process, he would use tea breaks to socialize with his co-worker and to plan for the next tuning steps that they would take.

After the tuning was completed, members of the Stearns/University of Michigan Gamelan Ensemble tested the gamelan by holding an informal concert in the Gamelan Room. Tentrem played the *gender*, while Sutarjo, the *gongs* and *kempul*, and they were joined by some of the original gamelan players who started to play in the ensemble over twenty or more years ago: Judith Becker, Mark Benamou, Nancy Wilson, Susan Walton, Charley Sullivan, Beth Genne, and Theresa Rohick (and family). They were amazed by how the retuned gamelan sounded completely different from what they remembered.

New Web Address

The Stearns Collection has redesigned its website and simplified its web address to www.stearns.museum. Be sure to visit this site for all the latest happenings and to learn more about the collection.

Moog Synthesizer in Hill

To commemorate the passing of Robert Moog, who was diagnosed with a brain tumor in April, 2005 and died on August 21, 2005, the Stearns Collection is displaying the first commercially produced Moog synthesizer in Hill Auditorium for the upcoming academic year. Mr. Moog visited the Stearns Collection in 1989 and spoke about his invention while demonstrating various techniques on the Stearns’ instrument. At the conclusion of this visit, Mr. Moog was generous enough to leave a number of his personal notes that describe various patches from which the instrument generates its sounds. Please join us in remembering this pioneer of electronic music.

How Do I Get To The Stearns?

The Stearns Collection of Musical Instruments is located in the Margaret Dow Towsley wing at the south end of the Earl V. Moore Building of the School of Music on Baits Drive in the University of Michigan North Campus area. Enter through the doors nearest to the parking lot. The McIntosh Hall is just across the lobby and to the right of the entrance. The Stearns galleries are down the stairs at the end of the lobby to the right.

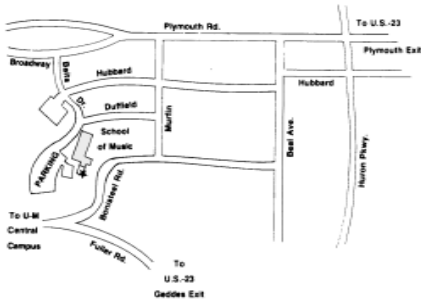
Admission: Free at all times.

Exhibit Hours: Monday through Friday 10:00 a.m. - 4:00 p.m.

Group Visits and Tours:

To arrange for group visits or guided tours, please call (734) 936-2891.

Parking: Metered parking is available south of the entrance doors.



Kulintang, continued from p. 2

the middle of the piano). Music played on the *kulintang* often features melodic cells of three to four-notes, each of which is repeated for a number of times before the melody moves to another new cell. Typically, the cells move to higher and higher tones, requiring the playing of the gongs to gradually ascend up to the highest individual gongs; sometimes the music would descend in the middle of the movement, only to start over from the beginning, or end with a closing figure. Supporting the *kulintang* part are other rhythmic instruments: the *agung* (large bossed gongs), *gandingan* (thin-rimmed, bossed gongs), *babandir* (small, thin gong), and *dabakan* (medium-sized drum). Generating an interlocking and fast-flowing stream of rhythmic accompaniment for the *kulintang* part, each of the above instrument repeats a rhythmic figure with slight variations for the duration of the music they play. In analytical terms, the *agung* and *gandingan* play simple melodic figures while the *babandir* keeps time, by playing the pulse. The *dabakan*, being the only drum in the group and gives a distinctive timbre, plays fundamental patterns that define the style and tempo of the piece being performed.

In the last couple of years, I have begun to use Kulintang musical ideas in my compositions, which include the first movement of my *Three Sketches* (2003) for piano, and the second movement of my orchestral piece *Regeneration* (2003). These pieces do not sound anything like Kulintang music because their use of Kulintang melodic style and phrase structure is limited. In late 2003, I began to work on my *Concertino* for piano and ensemble, a composition that implements an earlier compositional concept of featuring the piano like the *kulintang*, playing music against a rhythmic backbone provided by an ensemble of mainly Western instruments. In other words, the piano is set against three percussion parts. To give the ensemble more harmonic capabilities, the composition, however, also features four other instrumental instruments—violin, violoncello, flute and clarinet. Kulintang melodic shapes and rhythms appear in my *Concertino* at various points, but not throughout. They are used to dramatically close the first movement, a gesture that returns in the introduction and conclusion of the last movement. To highlight the Kulintang spirit and elements in the *Concertino*, it features the *agung*, *babandir* and *dabakan* in its percussion parts. I am proud to report that the intertwining of musical ideas, styles, and instruments gives *Concertino* an unique sound. And with this essay, I would like to thank Professor Joseph Lam for loaning me Stearns *kulintang* instruments, which helped my composition of the *Concertino* and its performance. For more information on Kulintang music, as well as recordings, go to <http://www.kulintang.com/index.html>. For information about the *Concertino*, email me at jeffmyers@hotmail.com.