Percussionist

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FALL, 1978

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(PAS)

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In this issue

THE MARIMBA FROM ESMERALDAS, ECUADOR

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About the Author:

Mr. White is a student of Robyn Schulkoski, Percussion Instructor at the University of New Mexico. He did this brief study of the Marimba from Esmeraldas, Ecuador while studying at UNM's Andean Center last year. Ms. Schulkoski and Mr. White are preparing to do a further, more extensive study in Esmeraldas next year with the aid of a Grant from the National Endowment for the Arts.

Ecuador is a country situated between Colombia and Peru, on the west coast of South America. The province of Esmeraldas is located on the north side of Ecuador on the Pacific Ocean. Esmeraldas differs greatly from the rest of Ecuador, in that its rugged topography, its tropical climate, and its geographic isolation have contributed to produce a unique culture for that province. The city of Esmeraldas, which is the capitol and cultural center of the province, has a population composed almost entirely of Blacks.

According to a popular legend, the forefathers of these people escaped from a shipwrecked slave boat and settled on the coastal regions of Ecuador, where the Esmeraldas River meets the Pacific Ocean. Because these people settled in an isolated region far away from the feudal slave systems of colonial times, they were able to keep much of their cultural traditions alive, unlike other Afro-American populations which were forced to abandon a great part of their cultural heritage over the years. Therefore a distinct Afro-American culture is very influential and every-present in Esmeraldas.

Perhaps the most interesting musical aspect of this Afro-American culture is the unique marimba from Esmeraldas. This primitive marimba is still relatively unknown to the rest of the hemisphere, and due to the geographic isolation of the region, has actually stayed in its original state for hundreds of years. In performance the marimba in Esmeraldas is accompanied by various drums and other percussion instruments, thus forming a type of primitive percussion ensemble. The percussion ensemble serves as the basis of the Esmeraldenian folkloric performance groups, which also include singers and dancers.

The origin of the Esmeraldas marimba is still not thoroughly documented. One investigator of the subject, Adalberto Ortiz, mentions that a version of this marimba could be found in the Congo and other regions of Africa. The African version of this instrument was made of wood, and the bars were hung over large, hollow gourds, which served as resonators. According to Ortiz, the instrument was hung from the

player's neck and was played with wooden sticks. It is believed that at this point in the evolution of the African marimba, the instrument was brought to the Americas by the African Slaves. The slaves first settled in the Caribbean Islands, and later on the coasts of Colombia and Ecuador.

Description of the Instruments

Basically, the Esmeraldas marimba consists of one row of bars; each bar measures about 1/4-inch thick and 1 1/2-inches wide. The length of the bar determines the pitch, and is usually four to sixteen inches long. The bars are made of a very hard wood called 'chonta', which comes from a palm tree native to Esmeraldas. The bars are tied together and attached to a primitive frame by a thin cord made from the 'cabuya' plant. Strips of cloth are attached to the top of the frame to absorb the impact of the bar against the frame. (See illustration No. 1, No. 2) Hung directly below the keys is a row of bamboo tubes, which serve as resonators. These hollow bamboo tubes range in length from four inches to 1 1/2-feet, and are selected in accordance with the pitch of the bar directly above it. This marimba is either hung from the ceiling or mounted on legs. The instruments that are hung from the ceiling generally have a better sound, but are not as practical as the marimbas mounted on legs.

Because the tuning of the marimbas is not equally tempered it is extremely difficult to notate the melodies in Western notation. Since none of the pitches completely match our own tuning, all the notated examples are approximate pitches. It was interesting to note that most of the melodies are based on a pentatonic scale.

The marimba is played with wooden sticks about ten inches long. The end of the stick is wrapped with rubber to produce the smooth, clear sound typical of the marimba. The instrument is played by two players simultaneously; one player plays the low range, which is called the 'bordon', and the other plays the high range, called the 'tiple'. The tiple is always played by the 'maestro' or leader of the ensemble. An ensemble generally consists of one marimba, one bombo, one cununo, and one guasa.

The Bombo

Bombo means bass drum in Spanish, and the bombo is the major instrument to accompany the Esmeraldenian marimba. The shell of this drum is made of wood, and has two 16-inch heads. One head is made of deer skin, and the other is of pig skin; both of which are very thick and strong. The heads are mounted under wooden rims and tied together by rope. It is possible to tune the heads by adjusting the tautness of the rope.

The bombo is played with two thick sticks. One stick is wrapped with cloth on the end and is played on the drum head; the other stick has no wrapping and is played over the shell or rim of the drum pro-

Illustration 1.

Illustration 2.

ducing a loud, whacking sound. Using the two distinct sounds, the drummer produces various poly-rhythms which add greatly to the texture and color of the music.

Illustration 3.

The Cununo

This instrument is similar to a conga drum. It has one ten-inch head made of deer skin. This skin is thinner and smoother, making a softer sound than the heads of the bass drum, the bombo. The shell of the cununo is made of hard balsa wood and stands about 20 inches high. The drum, held between the legs, is played with both hands.

Historically, the cununo and the bombo were not only musical instruments used to accompany various festivals and ceremonies, but they also served as a rapid means of communication, which played a great part in the history and development of the Afro-American populations.

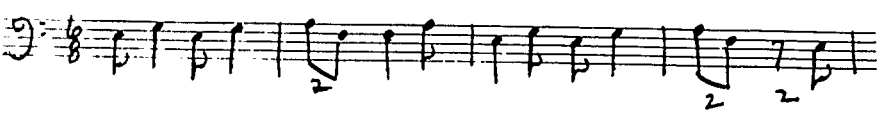
Illustration 4.

The Guasa

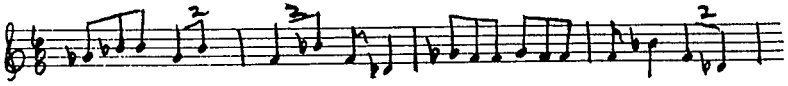
This instrument rounds out the percussion ensemble of Esmeraldas, and is usually played by the singers and dancers. It is an enclosed bamboo tube, about a foot long, which contains several small seeds inside. Four thin sticks are inserted through the center of the guasa to increase the motion of the seeds and to produce more volume from the instrument. The result is a sound much like that of maracas.

While studying the marimba from Esmeraldas, I observed that the music played by these marimba groups strongly resembles African music and has very little influence from modern Western music. I also learned that there is no written notation used in playing the Esmeraldas marimba music. All the music is played by ear and by memory, passed down from generation to generation. Through the use of live performances which I was permitted to tape, it was possible to notate some of the rhythms and the melodic structures of the music.

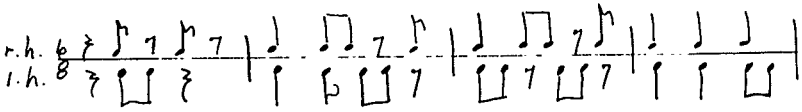
There are from 18-21 bars on this marimba. The player of the 'bordon', or the low register of the marimba, lays the foundation of the music, and plays in a constant rhythmic pattern. This pattern sets the pulse of each piece. An example of the music played on the bordon could be notated as follows:



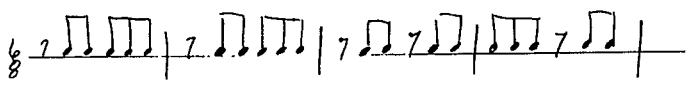
The player of the 'tiple' or high register of the marimba carries the melody and plays the spontaneous patterns and ornamentations of the melody. Much of the melodic structure of the music played on the tiple is based on various pentatonic scales, the most populr being the 'black notes' on the piano. Also, the tiple is seldom played in a distinct or constant pattern. Much of his music is improvised, as in American jazz. An example of the music played on the tiple might look like this:



The 'bombo' also plays an important part in setting the pulse of each piece. The bombo helps create energy and excitement in the music. A large portion of the rhythms played on the bombo are also improvised, and it is difficult to identify any distinct or constant patterns. A typical example of the bombo rhythm is similar to this:



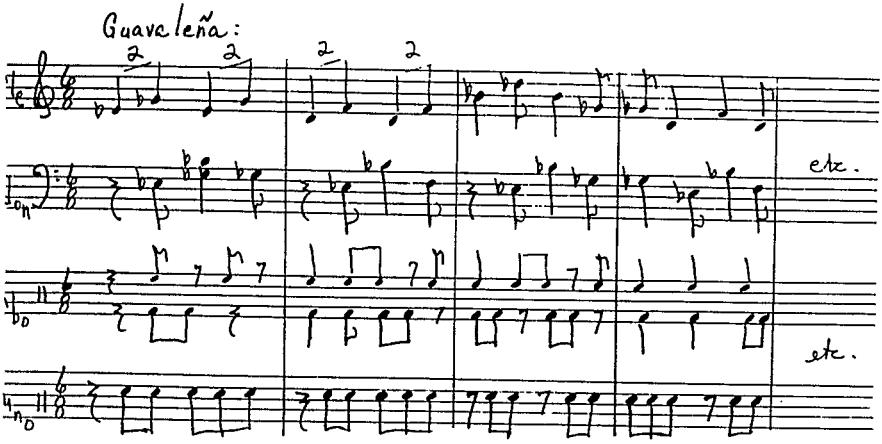
The 'cununo' fills in the rhythmic holes left by the bass drum. Here is a common rhythm which is played on the cununo:



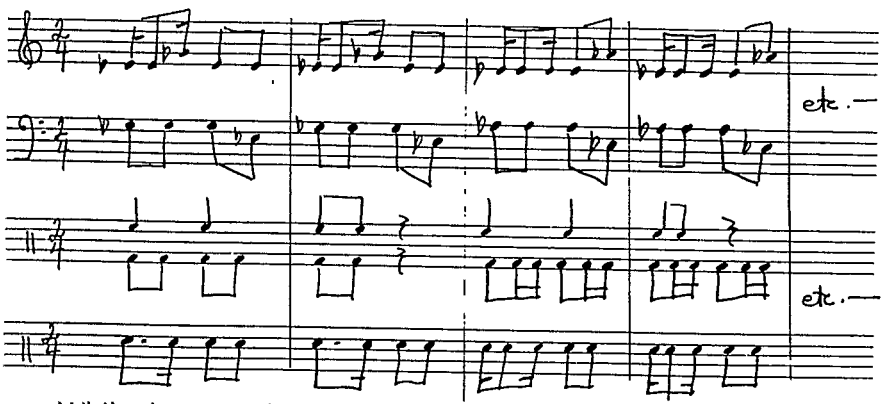
The 'guasa', or shaker, completes the ensemble and is used spontaneously, generally by the singers or dancers. One or two may be used in an ensemble.

There are a variety of songs and dances which are performed by Esmeraldas folkloric ensembles. Each dance has its own significance and distinct representation. The lyrics usually represent the Negro, his environment, and everyday life in Esmeraldas, and are sung or chanted in lively rhythms typical of tropical coastal regions.

Here is an example of how the combined ensemble could be notated:



Following is an example of an Esmeraldenian dance with a 2/4 feel: *Andareile:*



While the marimba from Central America developed into a more sophisticated musical instrument, played in salons and private halls, the Esmeraldenian marimba has remained unchanged in its rustic simplicity. Since World War II, due to the massive introduction into Ecuador of records, record players, and electric musical instruments, the use of the marimba from Esmeraldas has become more and more limited. The groups performing with this instrument are now compelled to give performances only in small theaters, public plazas, or for private functions.

There are two organizations in Esmeraldas that teach the art of their folklore: The School of the Marimba, and the Cultural Center of Esmeraldas. The School for the Marimba seems to be more active, and has its own professional group which travels through-out Ecuador giving performances with the marimba. Students start learning to play the

marimba as young as eight or ten years old. These students are also obligated to learn how to play the other percussion instruments of the group, all of which are taught by rote. Other students at The School of the Marimba specialize in dance.

The marimba music from Esmeraldas is unique and exciting. Since all the materials used in making this marimba are native to Esmeraldas, it could be the only instrument of its kind in the western hemisphere. And, although the use of the marimba is decreasing, it still represents a strong sense of pride to the people from Esmeraldas.

Illustration 5.

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A SUMMARY OF THE PERCUSSION WRITING OF STRAVINSKY

By Bob Houston

Editors Note:

This article is the concluding section of a dissertation dealing with Igor Stravinsky's use of percussion instruments. For those desirous of obtaining a complete copy of the thesis (350 pp.) or sections of it, write Bob Houston at East Texas State University, Department of Music, Commerce, Texas 75428. This thesis is also on deposit at the International Percussion Reference Library, University of Southern Mississippi.

In summarizing the percussion writing of Igor Stravinsky, it might prove beneficial to provide an overview of the chronological periods into which his compositions have been divided, isolating those works which make important use of percussion, thereby making specific conclusions about his percussion writing more tenable. For the purpose of this study, Stravinsky's compositions have been divided into four periods: 1906-1909, 1910-1920, 1920-1950, and 1950-1966. Generally speaking, his most important percussion writing appeared in the ten compositions completed from 1910-1920, and the seven works that comprised the years from 1950-1966. Although some twenty-six works are included in the third period, 1920-1950, like the first period, 1906-1909, percussion usage had considerably less importance.

Of the four compositions which Stravinsky wrote from 1906-1909, only the *Symphony in E-flat* and *Feu d'Artifice* had percussion parts worthy of some comment. In both of these works Stravinsky was strongly influenced by Chaikovsky, Glazounov, and his teacher, Rimsky-Korsakov. These two works, however, were not devoid of certain elements which would surface as Stravinsky trademarks in his later compositions.

The *Symphony in E-flat* not only contained Stravinsky's first use of independent percussion, but also incorporated his first experiment with asymmetrical rhythmic groupings. From the second composition of importance in this period, *Feu d'Artifice*, comes percussion alternation, a device which permeated the work of the Russian Period.

It is perhaps percussion alternation which became the catalyst for extensive percussion development in Stravinsky's writing of the Russian Period. Throughout the nineteenth century, percussion instruments were often scored with bass drum, cymbals and triangle playing simultaneously. With *Feu d'Artifice*, however, Stravinsky scored percussion in this fashion: Cymbal / Bass Drum  This kind of writing saw its fullest development in works such as *L'Histoire du Soldat* and *Le Sacre du Printemps*. This alternation of percussion instruments not only expanded color possibilities of percussion, but it also contributed greater rhythmic contrast and provided a linear movement to rhythmic structures. Not to be overlooked was the dynamic contrasts such devices

provided. Throughout *Feu d'Artifice*, and in subsequent compositions, this style of percussion writing was frequently employed at points where extreme power and intense excitement were being generated.

Although the early works contained comparatively little use of percussion, its employment was important, if for no other reason than the isolated percussion entrances contained seeds which would find full maturity in the works of 1910-1920, the Russian Period.

Perhaps for the reason of public acceptance, one would have to rank the works of 1910-1920 as those which most clearly identify Stravinsky's personal style. When one thinks of percussion in Stravinsky's music, one naturally gravitates to works such as *L'Oiseau de Feu*, *Le Sacre du Printemps*, *Petrushka*, and to a lesser extent, *L'Histoire du Soldat* and *Les Noces*.

The remaining five works to use percussion from this period are less known to the concert-going public; *Les Roi des Etoiles*, *Le Rossignol*, *Le Chant du Rossignol*, *Renard* and *Ragtime*. The main reason for this, of course, is that Stravinsky obtained world wide celebrity status with his controversial *Le Sacre du Printemps*, and the primitive savagery of this work became synonymous with Stravinsky's name. The public expected a squel to *Le Sacre du Printemps*, but Stravinsky had other directions in mind and moved toward new musical thought unconcerned with the public's expectations. There are two overriding influences in Stravinsky's composition during these years; the first and foremost was his collaboration with Serge Diaghilev, who brought world acclaim to the Russian Ballet, and Stravinsky, its most successful composer. Secondly, Europe at that time was intensely aware of other art forms from around the world, and Stravinsky was deeply committed to his Russian heritage and exploited his nationalism, perhaps more successfully than any Russian composer before or since. These influences, combined in ballet and orchestral works, with unmistakable Stravinsky characteristics, brought the young composer to the forefront during the early twentieth century, a position he maintained until his death some fifty years later.

Two of these Stravinsky characteristics included aggressive rhythmic structures cloaked in polymeters, and a facility in orchestration which received strength and identity through judicious voicing and careful doubling. His use of percussion was concerned with a combination of rhythmic and orchestrational considerations. In treating percussion in *Le Sacre du Printemps*, *Petrushka*, *L'Histoire du Soldat* and *Les Noces*, Stravinsky raised the percussion section to a level equal to that of the other orchestral families.

Stravinsky's development of percussion writing showed full maturity with his first composition from this period, *L'Oiseau de Feu*. In this work he not only made use of a great number of percussion instruments, he also elevated them to considerable importance, particularly in "The Magic Carillon" section (from the original complete ballet score), and in the "Danse Infernale," which exists in both full ballet

score and the revised concert suites. Percussion appears most frequently in those sections that relate to magical or supernatural qualities. Perhaps the most important aspect of percussion in this work is that it remains coloristic and seldom functions independently. The percussion section is chiefly concerned with providing harmonic and particularly rhythmic support to the orchestra.

With *Petrushka* percussion enjoyed greater importance as the instruments were used motivically, providing internal unity to, and between sections. Also with *Petrushka* Stravinsky became more aware of percussion sonorities and made the effort to indicate choice of sticks and articulation. Not only were the instruments given single notes of dynamic importance, but Stravinsky gave rhythmic cells to the percussion section, which operated in ostinato fashion under the orchestral thematic material. The use of these brief rhythmic cells in the percussion section led to one of Stravinsky's most often used techniques, that of the rhythmic ostinato. Although he did not incorporate this technique in but one of two sections, "Moor's Dance" and "Dance of the Coachman," the rhythmic ostinato assumed major proportions in almost every work composed to 1923, and it was utilized extensively throughout his Neo-Classic compositions as well. Frequently these ostinato sections served to obscure an identifiable pulse. Perhaps the last significant percussive employment in *Petrushka* concerns symbolism. Stravinsky was careful to make ethnic associations and dramatic impact more realistic by choosing a certain percussion instrument to fit the musical content. For example, during the "Dance of the Gypsy Girls," he scored a solo line for tambourine, an instrument long associated with the gypsy culture. Perhaps the most symbolic percussive employment in all of his writing appears at the end of the work as the tambourine is dropped on the floor, symbolizing Petrushka's skull as it breaks on the floor. The maturation of Stravinsky's percussion writing is very obvious in *Petrushka*, but dynamic, exciting and colorful percussion writing reached its fullest development with his next major work, *Le Sacre du Printemps*.

It is with this work, perhaps more than any other Stravinsky composition, that one associates with percussion. But in actuality, the reason for this belief is based on the fact that in *Le Sacre du Printemps* Stravinsky utilized the entire orchestra as a percussion section. Percussion instruments provided rhythmic complexity and generated tremendous power while contributing exotic color to the orchestration. The more subtle, intellectual application of percussion did not make its appearance in Stravinsky's writing until *L'Histoire du Soldat* and *Les Noces*. Perhaps no where else in orchestral literature has percussion been given such a wide scope of unbridled power as in *Le Sacre du Printemps*.

With the coming of World War I and the ensuing economic crisis, Stravinsky found it necessary to write for smaller, more flexible groups. Although he completed *Le Rossignol* after *Le Sacre du Printemps* in

1914, *Le Rossignol* was actually begun in 1908, and the first work to emerge after 1914 that included parts for percussion was *Renard* (completed in 1916). The most important aspect of this work with respect to percussion is that it had significant influence on *L'Histoire du Soldat*, which was completed in 1918.

The three works which so greatly influenced succeeding percussion writing were conceived and written within ten years of each other. On the one hand there was the vigorous *Le Sacre du Printemps*, with its massive battery of equipment played by numerous performers, and, on the other was *L'Histoire du Soldat*, which exerted equal influence on percussion writing, but for different reasons. In *Le Sacre du Printemps* Stravinsky exploited a large percussion section with orchestra to its fullest, and in *L'Histoire du Soldat*, he exploited the solo percussionist to his fullest. In *Les Noces* he introduced the percussion ensemble to chamber music. *L'Histoire du Soldat* however, has greater significance in twentieth century music as it was the first work to utilize multiple percussion in a soloistic capacity performed by a single player. What makes this work more important is that Stravinsky assembled the percussion instruments together and learned to play the part himself as he was writing the work. Understandably, some problems exist in notational procedures, but *L'Histoire du Soldat* stands as one of the foremost compositions for multiple percussion and has remained so since its premier in 1918. The key to the success of the percussion writing is that the part weaves a contrapuntal line of importance equal to that of the other six performers. Although the musical material is restricted to rhythm and timbre, the lack of definite pitch provides an effective contrast to the dissonance of the remaining ensemble. The percussion part is based throughout the work on repetitive figures that course a myriad of meter changes and are constantly pitted against the violin line, which is representative of the hapless soldier.

The third work, completed in 1923, actually belongs to Stravinsky's Russian Period, and represents his deepest Russian heritage. *Les Noces* was begun in 1912 and received its final orchestration after Stravinsky had embarked on his Neo-Classic journey. Written for percussion orchestra, four pianos and voices, *Les Noces* did for the percussion ensemble what *Le Sacre du Printemps* did for orchestral percussion writing and *L'Histoire du Soldat* for solo percussion development. In *L'Histoire du Soldat*, Stravinsky balanced the number of percussion instruments with those of the remaining ensemble. Likewise in *Les Noces*, he divided percussion into groups of definite and indefinite pitch: the four pianos, xylophone, timpani, crotales and bell against eight nonpitched instruments: four drums, tambourine, bass drum, cymbals and triangle. Perhaps the most significant stylistic departure in the percussion writing of this work is that it tends to be more homophonic, unlike the preceding works which had percussion scored in a more linear fashion.

Unlike *Le Sacre du Printemps* and *L'Histoire du Soldat*, in *Les*

Noces the percussion parts are less independent. Generally, the percussion instruments of definite pitch support the vocal parts in parallel movement, with contrapuntal lines and ostinato passages to provide contrast. The nonpitched instruments are of course connected to the rhythmic flow, but they adhere closely to the rhythmic structure of the text. The xylophone doubles the piano line throughout and has independent status in only three measures of the entire composition.

Les Noces, although less known to the general public, achieved critical acclaim and has been emulated in successful compositions by other composers. Carl Orff's *Catulli Carmina* employs virtually the exact instrumentation of *Les Noces*, except that the percussion section is larger. Regardless of what success *Les Noces* has found since its completion, it remained one of Stravinsky's personal favorites, and its influence on the development of the contemporary percussion ensemble was most significant.

In retrospect it seems uncanny that three compositions by one composer could influence such a wide variety of compositional styles. All of these works were written within ten years of each other.

Although *Les Noces* was finally completed in 1923, Stravinsky had actually turned his musical interest to forms of the classical period of music history, and the first composition representative of this stylistic departure that used percussion was *Mavra*, an opera buffa completed in 1921. In the *Italian-Russo* operatic style, *Mavra* was clearly less successful than many of the works of his Russian Period. What was important with this work, with respect to percussion, was that this was the first of many (twenty-one) which were to follow, that would make minimal use of percussion instruments. Doubtless there was not a conscious effort to abandon percussion employment, for had he done so, it would have been out of character with the lighter, more transparent orchestration. In the first compositions in the Neo-Classic style, Stravinsky placed great importance on the wind section and sonorous possibilities it presented. Stravinsky's interest in the piano was asserted in these early works, and because the piano took on the characteristics of a mini percussion section in many instances, the actual percussion instruments were not needed. If one were to categorize Stravinsky's percussion writing in one word, when discussing the Neo-Classic compositions, perhaps subtlety would be most appropos. He favored the use of timpani, seldom calling for any other instruments, and for the most part, the kettledrums provided harmonic support and were frequently scored with double basses. In many of these works, however, Stravinsky created a unique doubling combination which contributed greatly to an identifiable Stravinsky trademark; that being the combining of timpani and harp. The resultant tone of soft single strokes on timpani are not unlike the sound produced by harp strings plucked in the middle and lower register. By doubling the harp line in this fashion, not only did it strengthen the clarity of the harp, it added a clear but subdued chordal accompaniment which had full sonority but a light,

almost transparent character.

From 1920 until 1940, when Stravinsky moved to America, there were only two works which contained significant percussion parts, *Oedipus Rex* and *Persephone*. In *Oedipus Rex* and *Persephone* the timpani assume great importance, for while they accompany solo vocal declamation, they contribute psychological considerations by incorporating germinal harmonic structures on which the works are based. It could be said that although the frequency of percussion usage is less than in the works of the Russian Period, in these two Neo-Classic works, percussion has greater motivic and structural importance.

In 1940 Stravinsky moved to America, and in the ten years that followed, completed twelve works which included percussion. It should be added that during this time Stravinsky also revised many of his more popular works including: *L'Oiseau de Feu, Petrushka,* and "The Sacrificial Dance" from *Le Sacre du Printemps.* Clearly, he was concerned with making money, and many of the short works are really unimportant, and in fact, somewhat embarrassing when compared to his major works. Some of these pieces were commissioned just to trade on Stravinsky's name. There are only three works from these ten years which make any important use of percussion instruments: the *Circus Polka, Scherzo a la Russe* and *Symphony in Three Movements.* In each of these compositions, however, the percussion writing exhibits no departure from previous techniques, and actually stems from the style of writing seen in the works of the Russian Period. Undoubtedly Stravinsky was influenced by those works as he was revising many of them at the same time he was composing.

With the death of Arnold Schoenberg and at the coaxing of Robert Craft, Stravinsky changed musical directions once again and began to embrace seriality. From this last period of Stravinsky's long career come some six works which include parts for percussion.

In the first of these, *Agon,* Stravinsky was exploring the possibilities of the serial process, and his percussion writing reflects the chamber pieces like *Renard* and *L'Histoire du Soldat,* and only infrequently does percussion take part in the seriality. With *Threni* and *Sermon, Narrative and a Prayer, Stravinsky* turned to full seriality, and with it relegated percussion to almost exclusive coloristic and harmonic applications. Due to the inherent nature of nonpitched percussion, their employment in serial music is limited to rhythmic and coloristic considerations. However, Stravinsky used the coloristic possibilities of percussion to influence the tonal structure of the dissonant vertical sonorities. For example, in *Sermon, Narrative and a Prayer,* three different tam-tams effect three different kinds of chords when placed with the harp, piano and contra bass lines, because each tam-tam contains a different set of overtones which, when combined with two other tones, creates a chord of subtle complexity. Timpani, being definite pitched instruments like the bar percussion, were treated serially but functioned more harmonically than melodically. Generally, in Stravinsky's earlier

serial works, percussion affected the chordal, sonorous aspects primarily, and had secondary influence with respect to rhythm and melody.

With the later serial pieces however, Stravinsky combined percussion techniques from his Russian and Neo-Classic periods and changed the concept of the percussion writing in these last works. First, he called for a large percussion section, as he did for his works from 1910-1920, and secondly, he scored them with subtle germinal rhythmic and harmonic lines that contained psychological implications, as he had done frequently in his major works from the Neo-Classic years. This latter technique is particularly apparent in *The Flood.* Perhaps his most important composition in terms of percussion significance is *Introitus,* for the work was, in essence, written for tenor voices and timpani, with piano, harp, viola and contra bass parts included to provide clarity to the timpani line.

In the last work that included percussion, *Requiem Canticles,* Stravinsky departed from his previous percussion technique in only one respect, and that was his inclusion of a part for vibraphone. This was the only instance in which he wrote for this instrument, and its employment at the end of the work doubled the celesta part. As in *Introitus,* he utilized two timpanists, which allowed for greater flexibility in serial treatment.

It is interesting that Stravinsky, in his last works, returned to techniques he had employed half a century before. A composer who was able to transcend musical style changes but never lose his personal identity, Stravinsky borrowed from what he had done in his early works and adapted them for serial development. Although he had developed the percussion section within the orchestra to its fullest in *Le Sacre du Printemps,* wrote the first significant multi-percussion part in *L'Histoire du Soldat,* and was the first to score for percussion ensemble with *Les Noces,* it was not until *Introitus* that he placed major thematic accompaniment with percussion. What was particularly interesting is that in the closing measures of his *Requiem Canticles,* he would borrow the concept of using the bell chords. As the bell chords in *Les Noces* unknowingly represented his final use of active percussion writing for almost forty years, the bell tones in *Requiem Canticles* signaled, also unknowingly, the termination of one of the most influential voices in the history of music.

It is too early to decide how history will look upon the works of this multi-faceted composer, but one aspect cannot be denied. Igor Stravinsky has influenced succeeding twentieth century musical tastes perhaps more than any other composer.

With respect to percussion development, Stravinsky was one of the first to give freedom to the percussion family. Stravinsky maintained a personal style in his percussion writing and often gave the percussion instruments parts which complemented and enhanced the overall musical quality of his compositions.

THE EARLY PERCUSSION MUSIC OF JOHN CAGE

by Stuart Smith

About the Author:

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Between the years 1933 and 1950, John Cage devoted much of his considerable energy to the composition of percussion scores (over sixteen) and to inventing compositional procedures and theories especially conceived for percussion music. These compositions range from pieces for piano exterior and voice, like *The Wonderful Widow of Eighteen Springs*, to large percussion ensembles, as in *Imaginary Landscape No. 1* through *Imaginary Landscape No. 3* where the instrumentation consists of found objects, 'live electronics', and 'traditional' percussion instruments.

Cage described percussion music as the "contemporary transition from keyboard-influenced music to the all-sound music of the future. Any sound is acceptable to the composer of percussion music . . . methods of writing percussion music have as their goal rhythmic structure of a composition."[1]

Cage's method of structuring his percussion music, and much of his other music, is based on a simple musical fact. Rhythm is the one musical parameter that measures and defines all the other musical parameters. Rhythm articulates all the parameters of sound. Rhythm is the basic musical parameter. Therefore, a musical structure based on any parameter other than rhythm is a contradiction, because it is the very essence of musical (sound) structure. If sound is shaped by time, then music composition is the temporal organization of sound. Pitch and harmony should not be the primary concerns of a composer of music. Rhythm is the fundamental musical parameter. (One does not build a house by first planning the interior decorating.)

Cage's theory concerning the importance of rhythm led him to a radical re-definition of music. This definition is: Music is time passing. Music is careful attention paid to on-going experience. Music is not an object, but an attitude, a presence of mind. (Music became a verb.) Sound is no longer an issue since we are never without it anyway. One sound is intrinsically no better or worse than another; hence, music is time passing. Sound is time made audible.[2] (A perfect example of this attitude is 4-:33".)

This definition may seem so all-inclusive that it would apply to everyday life. This is true. Cage is out to remove the boundaries separating art and life.

> There is no such thing as an empty space or an empty time. There is always something to see, something to hear. . .Until I die there will be sounds. And they will continue, following my death. One need not fear about the future of music.[3]

In the article "For New Sounds" (*Modern Music Magazine*, Volume XIX, p. 245), we can see how interest in composing for percussion instruments led quite logically to Cage's later attitudes concerning musical structure.

> In writing for percussion instruments, the composer is dealing with material that does not fit into orthodox scales and harmonies. It is therefore necessary to find some other organizing means than those in use in the twelve-tone system.
>
> A method analogous to such a case, the 'sound row' would contain any number of elements. However, because of the nature of the material involved, and because their duration characteristics can be easily controlled and related, it is more than likely that the unifying means will be rhythmic.

Before we consider Cage's musical structure in more depth, it will be helpful to consider the question: Why include noise as a musical element? It is important to understand why Cage worked with noise, because its use caused him to develop new organizational methods and principles.

> Where ever we are, what we hear is mostly noise. When we ignore it, it disturbs us. When we listen to it, we find it fascinating. The sound of a truck at fifty miles per hour. Static between the stations. Rain. We want to capture and control these sounds, to use them not as sound effects, but as musical instruments.[4]

Cage is dealing with a fundamental question: How does one create an art that deals directly with society in terms of the methods for structuring music and of the very sound-elements themselves?

Our culture requires us to deal with multiple layers of highly complex information on a day to day basis. Many people react to this barrage of information by 'tuning out' much of it, thus being unaware of potentially significant life-experiences. Noise is a constant, integral element in our society, both as a by-product of the culture and as a carrier of information. If we try to ignore the noise, then it becomes a perpetual irritant. Cage's use of noise is a recycling process. He recycles everyday perhaps even hazardous sounds into music, a music that provides the listener with a sensitivity and a usable esthetic for coping with the sounds around us.

> I believe that the use of noise . . . to make music . . . will continue and increase until we reach a music produced through the aid of electrical instruments . . : which will make available for musical purposes any and all sounds that can be heard . . . In the past, the point of disagreement has been between dissonance and consonance. It will be in the immediate future, between noise and so-called musical sounds, the present methods of writing music, principally those which employ harmony and its reference to par-

ticular steps in the field of sound . . . new methods will be discovered bearing a definite relation to Schoenberg's twelve-tone system.[5]

To summarize, Cage wanted to expand the composer's palette to include all sounds so he or she could create a new and relevant art form. New technologies require new modes of perception in order to deal with the life styles created by such technological changes. It should be noted that Cage was not the only composer who called for this timbral expansion. Varese, Ives, Busoni, composers of the futurist movement, and many others called for a more inclusive rather than exclusive music.

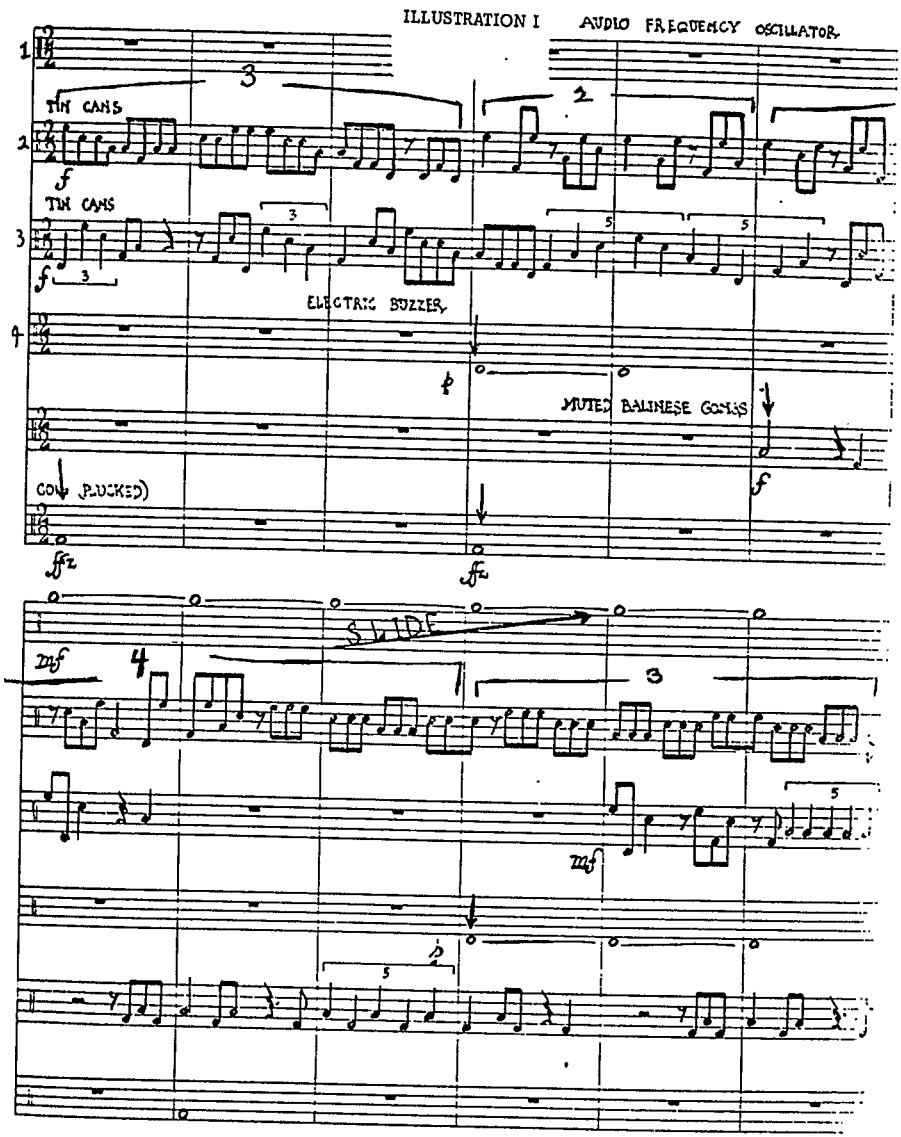
In the 1930's Cage invented what Lou Harrison calls the 'square root formula'. He used this formula as the structural basis of his music and as a useful procedure to guard against composition being just another culturally conditioned act. For Cage realized that a composer must create a system of obstacles (strictly adhered-to pre-compositional rules) in order to free the composer to be truly creative.

The basic idea behind the 'square root formula' is this: "The whole has as many parts as each unit has small parts, and these, large and small, in the same proportion."[6] In other words, the macro-structure is an enlarged image of the micro-structure, or, the micro-structure is a smaller image of the macro-structure.

A good example of how the 'square root formula' works can be found in *Imaginary Landscape No. 3*, written, in 1942, for six percussionists performing on an audio frequency oscillator, ten empty tin cans, an electric buzzer, muted Balinese gongs, and a radio aerial coil attached to a phonograph pick-up arm. The rhythmic structure of the work is: 12 x 12 (3, 2, 4, 3). This means that the rhythmic structure of the entire composition is based on twelve repetitions of a twelve-measure phrase structure divided into three, two, four, and three measure phrases. (See Illustration 1, p. 19.)

There are four sections in *Imaginary Landscape No. 3*. Each section of the composition is in the same proportion to the entire composition as the small phrases are to the twelve-measure structure. The first section is 3/12 (36m), the second section is 2/12 (24m), the third section is 4/12 (48m), and the fourth section is 3/12 (36m) of the composition. Thus the micro-structure of the twelve-measure phrase-structure, divided into 3, 2, 4, and 3 measure phrases, is in the same proportions employed in the macro-structure of the composition of 144 measures.

The beginning of each sub-division of the twelve-measure phrase-structure is often an important point of entry for the performers. The individual parts are constructed of constantly shifting repeating figures. (See Illustration 1, p. 19.)



All of Cage's compositions written between 1939 and 1952 were composed with a similar principle of rhythmic structure, "a rhythmic structure based on duration, not of notes, but of spaces of time."[7] There are three factors that influenced Cage in his approach to rhythmic structure.

First, Cage met Henry Cowell in 1932 and studied Oriental music with him at the New School for Social Research in New York. Cage studied the cyclic rhythmic structures of the East, like Indian tala, which is very similar to Cage's own later rhythmic concepts. "It (Cage's rhythmic approach) is analogous to Indian tala, but has the Western characteristic of beginning and ending."[8]

Second, in 1937 Cage began his long association with dance. He joined a modern dance company at U.C.L.A. as an accompanist and composer. In that same year he moved to Seattle as the composer-accompanist for Bonnie Bird at the Cornish School. Bird was committed to creating a more subtle relationship between dance and music, so neither one would suffer formalistically.

> In the belief that a too close collaboration between dancer and composer results in a clash of individualities and a series of small compromises destructive to the form of both music and dance, Miss Bird usually gives her composers a written description of her dance idea. . .She gives them (composers) indications of the *time elements* (emphasis added) involved and they complete the music to their satisfaction away from her.[9]

As this quotation illustrates, Cage's involvement with modern dance surely was an influence that led him to view rhythm as the only viable musical parameter on which to base a composition.

Third, between the years 1934 and 1937 Cage studied musical analysis and counterpoint with Schoenberg at U.C.L.A. "Since Arnold Schoenberg had impressed upon me the structural function of tonality, I felt the need of finding some structural means adequate to composing for percussion. This led me eventually to a basic re-examination of the physical nature of sound."[10]

To further illustrate Cage's use of rhythm as the primary structural determinate, I will next discuss *Quartet: 12 Tom Toms*, which Cage wrote in 1943. In this piece he utilized an attack-point system as a method of density or textural control. Cage describes it as "a method controlling the number of icti (attacks) within small structural divisions'. In other words, this system pre-determines how many sounds will occur in a given period of time. Mr. Cage told me in a phone interview that he was influenced by Lou Harrison's use of a similar method, and furthermore, that Mr. Harrison was influenced by Henry Cowell, who got the idea for an icti-controlled method from Charles Seeger (see *Music Primer*, Lou Harrison, p. 18).

The macro-structure of the *Quartet: 12 Tom Toms* is four, thirty-nine-measure sections (hereby referred to as Section I, II, III, and IV), each divided into nine smaller sub-divisions.

Cage makes a distinction between structure and method. "By 'structure' is meant the division of a whole into parts; by 'method', the note-to-note procedure."[11]

The method he devised was cyclic. He drew a circle on which were placed numbers which corresponded to the number of attack-points per measure and/or per sectional sub-division. Mr. Cage informed me that these numbers used to predetermine the number of attack-points were derived from the initial idea, which was improvised. No matter where he was on the circle, he would have the option of two choices for the next number (one could go either clock-wise or counter-clock-wise at any point). As Cage said, "What bothered me about serial composition is the unidirectionality of it. Once you begin, you only have one choice."

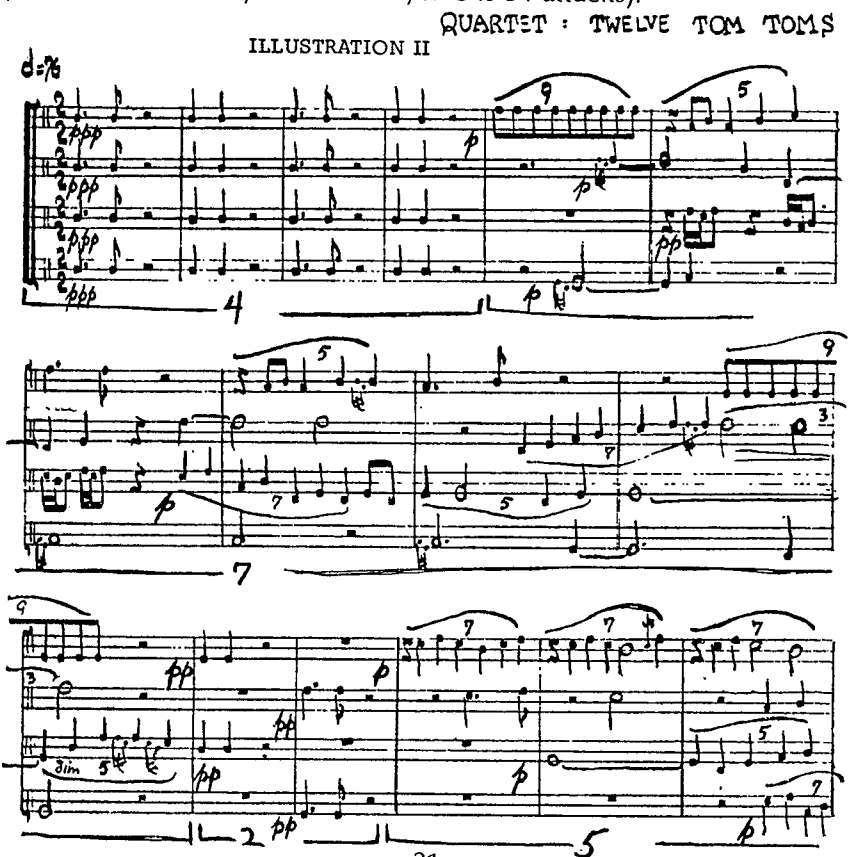
Cage also said that he is interested in the situation where method and structure have 'their own life'; they are not interdependent. The 'method' was often 'considered improvisation', while the 'structure' was totally pre-determined. "Composition, then, I viewed, ten years ago, as an activity integrating the opposites, the rational and the irrational, bringing about, ideally, a freely moving continuity within strict division of parts, the sounds, their combinations and succession being either logically related or arbitrarily chosen."[12]

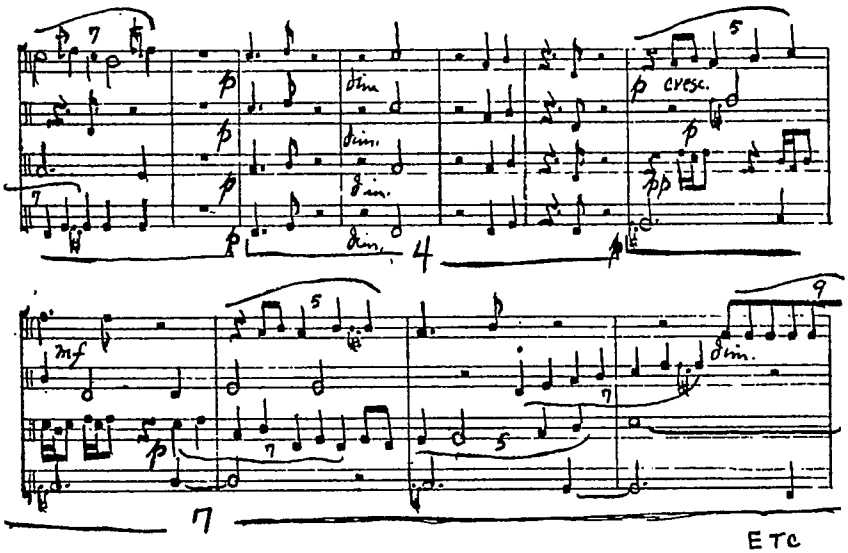
The remainder of my article will be an examination of *Quartet: 12 Tom Toms* in detail.

The dimensions of the sound material used in the piece are, one, a timbral scale of twenty-four sounds (the composition is played by the performers using their hands on both the center and the edge of the drums, thus producing two sounds for each instrument; two additional timbres are made when a timpani mallet and brush are used as beaters), and, two, a dynamic scale of ppp to f.

The nine sub-divisions in the 39-measure sections are grouped into 4, 7, 2, 5; 4, 7, 2, 3, and 5 measures. Each sub-division was assigned a certain number of attack-points (icti) per player. The first four measures of Section I has eight tutti attacks. In the next seven measures, Player A and Player C each have 34 attacks while Player B has 20 and Player D has 14 (the addition of Player B and Player C is 34 attacks).

ILLUSTRATION II





List of the Number of Attack-points per Sub-division in Section I

The two-measure phrase:
Player A 2 attacks
Player B 2 attacks
Player C 2 attacks
Player D 2 attacks

The five-measure phrase:
Player A 24 attacks
Player B 6 attacks
Player C 7 attacks
Player D 11 attacks

6+7+11 = 24

The four-measure pharase:
6 tutti attacks

The seven-measure phrase:
Player A 34 attacks
Player B 20 attacks
Player C 34 attacks
Player D 14 attacks

20+14 = 34

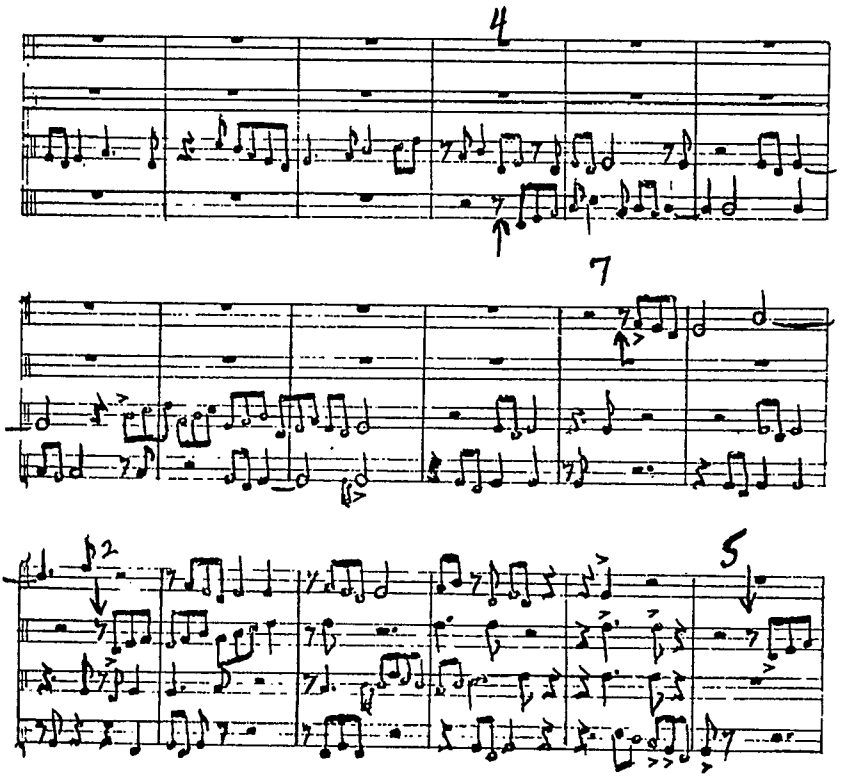
The two-measure phrase:
4 tutti attacks

The three-measure phrase:
0 tutti attacks

The five-measure phrase:
Player A 24 attacks
Player B 6 attacks
Player C 7 attacks
Player D 11 attacks

6+7+11 = 24

The second section of the piece is a quasi-canonic section; the entry points of the individual performers are 4m, 7m, 2m, 5m, 5m, 5m. These entry points are derived from the sub-divisions in Section I. (See Illustration III, below.)



Section III is organized in a similar manner to Section I in that each sub-division is assigned a certain number of attack-points.

List of the Number of Attack-points per sub-division in Section III

The four-measure phrase:

Player A 4 attacks
Player B 16 attacks
Player C 4 attacks
Player D 16 attacks

4+4=8

The seven-measure phrase:

Player A 34 attacks
Player B 18 attacks
Player C 16 attacks
Player D 34 attacks

18+16=34

The two-measure phrase:

Player A 1 attack
Player B 14 attacks
Player C 0 attacks
Player D 1 attack

1+14+1=16

The five-measure phrase:

Player A 24 attacks
Player B 6 attacks
Player C 7 attacks
Player D 11 attacks

6+7+11=24

The four-measure phrase:

Player A 4 attacks
Player B 16 attacks
Player C 4 attacks
Player D 16 attacks

4+4=8

The seven-measure phrase:

Player A 34 attacks
Player B 22 attacks
Player C 12 attacks
Player D 34 attacks

22+12=34

The two-measure phrase:

Player A 0 attacks
Player B 14 attacks
Player C 1 attack
Player D 1 attack

14+1+1=16

The three-measure phrase:

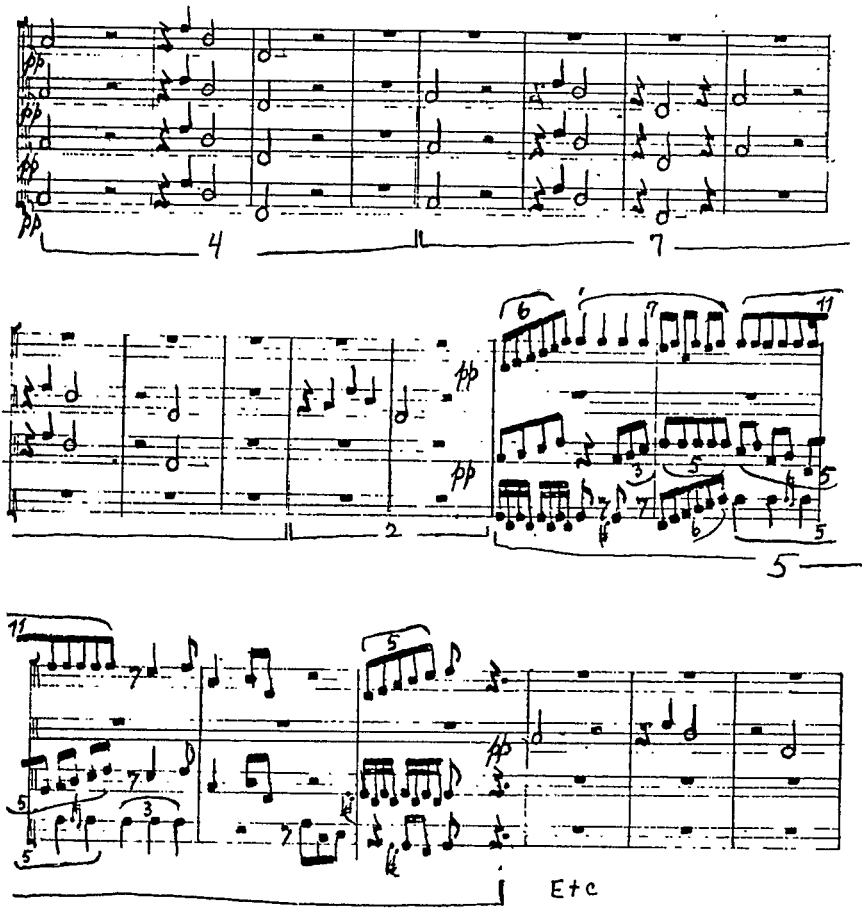
Player A 0 attacks
Player B 14 attacks
Player C 0 attacks
Player D 0 attacks

The five-measure phrase:

Player A 24 attacks
Player B 6 attacks
Player c 7 attacks
Player D 11 attacks

6+7+11=24

In Section IV of *Quartet: 12 Tom Toms,* Cage maintains the recurring durational structure. This section consists of unison rhythms with one contrapuntal interruption. I think of this section as a textural inversion of Sections I and III, as Section I and III consist of contrapuntal texture with unison interruptions. (See Illustration IV, below.)



Section I consists of combinations of transposed rhythmic values and tonic rhythmic values (tonic rhythmic values are rhythms that occur 'naturally' within the meter, like 𝅗𝅥 ♩♩♫♩ or ♩♩. Transposed rhythmic values are values like 𝅗𝅥 𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯 or 𝅘𝅥𝅯𝅘𝅥𝅯 𝅘𝅥𝅯 𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯). Section II consists of tonic rhythms. Section III consists of a combination of tonic and transposed rhythmic values derived from Sections I and II. Section IV consists of tonic rhythms with one contrapuntal interruption of transposed rhythmic values.

Thus the macro-structure reflects the micro-structure of the first seven-measure attack-point design in that Sections I and III are related, and Sections II and IV are different.

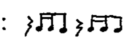
Micro-Structure of the first
seven-measure attack-points

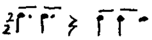
Player A 34 attacks
Player B 20 attacks — related
Player C 34 attacks — different
Player D 14 attacks

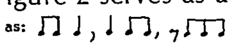
Macro-structure of the
entire piece

Section I
Section II — related
Section III — different
Section IV

Cage wished to avoid thematic repetition and variation as a unifying factor in *Quartet: 12 Tom Toms*. The function of the icti method and the rhythmic macro-structure was to provide a new technique to take the place of motivic development as the main unifying factor.

I do feel, however, that there are two rhythmic figures that tend to function as motives throughout the composition. The first figure is  which is stated in unison at the beginning. The second figure is:  , a frequently-used figure, first stated in measure 6. These figures reappear often, either verbatim or slightly altered.

Example: Figure 1 as it appears in measure 24 of Section III, played-  with brushes.

Example: Figure 2 serves as a basic figure in Section II. It appears as:


In conclusion, Cage uses time as a space to be filled rather than as a by-product of a developmental process. He demonstrates in his early percussion works that any sound, no matter how complex or 'unconventional', can be organized into a coherent musical composition. Furthermore, by the very idea that any sound can be utilized in music, given the proper temporal framework, Cage proves that the sound-image (overall timbral icon) of a composition is more transitory in interest and ultimately in value than the rhythmic structure or organizational process of a composition. In the final analysis, Cage, by using any and all sounds proves that sound is not the primal parameter in music; time is.

Footnotes

1. John Cage, *Silence*, p. 5.
2. Calvin Tomkin, *The Bride and the Bachelors, p. 102.*
3. John Cage, *Silence*, p. 8.
4. John Cage, *Silence*, p. 3.
5. John Cage, *Silence*, p. 3, 4, 5.
6. Lou Harrison, *Music Primer*, p. 10
7. John Cage, *John Cage*, Richard Kostelantz, editor, p. 127
8. Ibid.
9. Verna Arvey, *Choreographic Music; Music for Dance*, p. 408.
10. John Cage, *Silence*, p. 127.
11. John Cage, *Silence*, p. 18.
12. John Cage, "Composition as Process", *Silence*, p. 18.

Verna Arvey, *Choreographic Music; Music for the Dance*, E.P. Dutton, Inc., New York, 1941.

John Cage, *Silence*, The M.I.T. Press, Boston, 1961.

Henry Cowell, *New Musical Resources*, Something Else Press, New York, 1969.

Lou Harrison, *Music Primer*, C.F. Peters Corp., New York, 1971.

Richard Kostelantz, *John Cage*, Praeger Publishers, Inc., New York, 1970.

Ellsworth Snyder, *John Cage and Music Since World War II: a study in applied aesthetics*, University of Wisconsin Microfilms, Madison, Wisconsin, 1970.

Calvin Tomkin, *The Bride and the Bachelors*, Viking Press, New York, 1965.

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LATIN-AMERICAN PERCUSSION

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Introduction

A musician friend of mine has argued for many years that the words 'Latin American' applied to the music of South America are misleading. He has pointed out, quite rightly, the music we call Latin American has its basic roots in Africa, where music has always been, traditionally, an integral part of native life. Over the centuries these roots have spread out via Cuba and through the many Caribbean islands to South America and there, coupled with the national music of South America, bearing the heavy overtones of Spanish culture, a music has emerged that should be correctly titled as Afro-Cuban. I, personally endorse his argument.

However, it appears we have established, indelibly, upon both musician and layman, the term 'latin-american music' and created an international acceptance of the name for this musical form. This should not detract from the powerful Cuban influence on latin-american music, for many African, and even some of Spanish origin, have had a stop-over in Cuba, where the Cubans have refined and adapted existing rhythms and created new ones, but all retaining something of their African, (or Spanish) origin. The location of these origins of the most popular latin rhythms, with which we are familiar, are set out below:-

Places of Origin of Latin Rhythms.

Six basic areas:

(1) Africa
(2) Cuba
(3) South America
(4) Caribbean
(5) Spain
(6) North America

(1) Africa

Nañiga

Afro-Cuban - from which is derived the Afro 6/8 Rhythm.

Rhumba - from Iberia - thru the W. Indies to Cuba.

Meringha

(2) Cuba

Danzon

Zorandillo

Punto

Guajira (related to the Punto)

Guaguanco - from Havana - very heavy African roots.

Bolero (2/4 meter) - originally derived from Spanish Bolero.

Habanera - Cuban dance form evolved from Spanish dance.

Son - Cuban development of Spanish folk songs.

Nañigo - taken from the African Nañiga ritualistic dance.

Guarancha - sometimes combined with other rhythms to form hybrids (Guarancha-Mambo/Guarancha-Rumba).

(3) South America

(a) *Brazil:*

Brazilian March

Samba - has its origin in African rhythm.

Baion

Conga - of Afro-Cuban origin.

Batuque

Maxixe

Tango - more lanquid and sentimental version of the basic Spanish tango.

(b) *Puerto Rico:*

Bomba - very intense African rhythm.

Plena

(c) Venezuela:

Joropo (no hand drums played)

(6/8 or 3/4)

(d) *Argentine:*

Tango (no hand drums played)

(4/4)

(e) *Mexico:*

Sequidilla

Jaleo

(f) *Dominican Republic:*

Merengue - of Spanish-Negro origin - national dance - possibly derived from African Meringha. Rhythm similar to the Punto. Spanish Merenque - major key Haitian Merengue - minor key and sung in French.

(g) *Columbia:*

Pasillo (similar rhythm to Joropo)

(4) *Caribbean*

(a) *Martinique*) ·
St. Lucia) ·

Beguine

(b) Trinidad:

Calypso - beat is of African origin - influenced by the music of East India and Africa.

Reggae

(5) *Spain*

Tango - (2/4) originated from Moorish gypsies (Milonga) - brought to Spain by them - and eventually to Cuba by slaves. (no hand drums played).

Paso-Doble - (2/4)

Bolero - (3/4) - invented by a dancer in 1780. Known also as the Gachcha and Gitana.

Habanera - early Spanish dance form.

Rhumba - from Iberia - thro the West Indies to Cuba.

(6) *North America*

Bossa-Nova - a merger of Brazilian rhythms and North American jazz music. (based on a variation of the traditional clave beat and pattern).

Mambo - rhythm derived from the rumba, the Cuban rhythms and dance movements blended with the melodies and harmonies of the American negros.

Several types of mambo: single, Double, Fast.

Cha-Cha - a hybrid rhythm evolved from the Bolero Rumba, Mambo and Jazz. Very popular dance in the 1960's.

Paso-Doble - (3/4)

The Development of Latin Rhythms

The adaptability of latin rhythms to contemporary Western music from its entry into the dance music of the 1920's has become a major dominating influence in classical, jazz and rock music of the last twenty-five years.

The introduction of ethnic rhythms as an art form that could be communicated and appreciated into the ballrooms and dance halls of Europe and America evolved new dance froms which became available and acceptable to a large section of the public, seeking self-expression as a form of entertainment. Whereas, in European ballroom dancing, the dance movements were made to a strong melodic structure overlaid a lesser rhythmic background, the latin-american dances were the reverse, being based predominantly on powerful and compelling

rhythms, with the melody lines interwoven as a secondary feature. But even with the melodic and harmonic lines trailing the predominant rhythm, the melody had a more intense rhythmic expression than its western counterpart.

From that point in time, the progressive development of music has seen the utilisation of latin rhythms in many hybrid forms. It is of interest to note that despite the post-war decline of latin-american dance-bands in England, the use of these latin rhythms has remained in most musical forms, in many cases, without the use of traditional latin instruments.

The most famous and longest established latin dance-band in England, was the Edmundos Ross Orchestra, whereas in the jazz scene, Ray Ellington, with his quartet and later big band made an impressive contribution to the latin music sphere. The most recent exponent, the late Denis Lopez had established himself as an individualistic latin music exponent through his radio broadcasts, within the last few years. His recent untimely death has left an unfilled gap in the production of live latin music.

It must not be supposed these names were the only bands in this country creating and playing latin music, there have been many others, but to those of us who are musicians, these are the people we knew best, as major figures in this specialist field of music.

The big latin bands of both South and North America, formed during the late twenties and early thirties and in some cases remaining through the subsequent decades, provided a constant background of latin-american music, as musical form shifted and evolved to suit the social and commercial requirements of the twentieth century.

The works of these big bands, Xavier Cugat, Machito, Serges Menderes, Perez Prado and individual instrumentalists, Jack Constanza, Chano Pozo, Candido, Jose Mongual, Carlos Valdes, Tito Puente, to mention a few of the hundreds of bands and musicians who have given inspiration and direction to a major musical force. The wide use and experimentation of latin polyrhythms and the use of traditional latin instruments in the modern music of Gillespie, Kenton, Rich, Herman and Thad Jones/Mel Lewis have demonstrated forcibly how these rhythms can be harnessed and displayed in the structure of contemporary music. It is of great interest to note the use of odd-meter signatures, taken from the music of Turkey, India and Greece interlaced with latin-american based rhythms to create more exciting rhythmic pulses, probably the best known being a samba with a 7/4 meter signature. The musician who has carried out so much pioneering work in this sector of exotic meter signatures is, of course, Henry J. (Hank) Levy. Those of us who are musicians have long recognized and absorbed the working knowledge related to radical meter changes, but to many uninitiated people, the use of broken meter signatures has been accepted as a form of 'rock beat'.

The advent of rock bands during the last twenty-five years and the introduction to rock of latin american percussion and instrumentalists, utilizing the musical sounds created by bongo, conga, timbale and other associated instruments of the category, has been slow, but significant. The musical traditions of Cuba have been showcased in what may be termed latin funk, created by myriads of small groups of musicians. These groups have assumed many titles to describe their music, jazz/rock, jazz/latin, latin/beat, latin/rock, afro/latin, afro/cuban, afro/rock, but all expressing their feel for contemporary salsa. In this field, it could be said that Carlos Santana has been one of the best known exponents of this music, packaging, displaying and presenting for world-wide acceptance by contemporary youth, the rhythmic heritage of Cuban music.

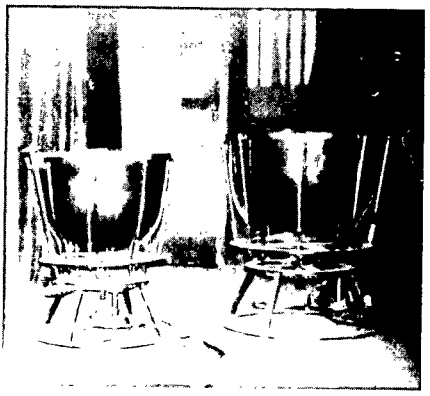
Now Back to Africa

In considering the evolution of latin-american music from its motherland, Africa, one should pause to reflect upon the role of contemporary African music. Despite its role as the birthplace of latin music, few African bands have generated an individual 'African' sound that has aroused western audiences. Probably the most famous band, who can be considered as both the pioneers of Afro/rock music, and who remain elevated above all other similar bands are the Nigerian band "Osibisa", but other names such as Assegai and Chaka, have achieved the distinction of public acclaim by both musician and layman. It is ironic that in giving to the world, a unique art form, African musicians, in their continuing search for a contemporary expression of their great heritage, have found themselves utilizing the rhythmic components of Africa's ethnic music, returned to them as an adapted and refined expression of their predecessors original product. Musicians today, like Taso Stefanou with his band Makonde in Nairobi are endeavouring to create a new, stimulating and original African sound acceptable to western ears.

Now that the music is beginning to flow back to its homeland, it is time for the real voice of Africa to be re-created and heard anew.

AUGUST KNOCKE'S TIMPANI

by Nancy Benvenga
Bruksgatan 40
S-252 24 Helsingborg
Sweden



Timpani have led a fascinating life since the days when they took pride of place borne on a magnificent horse at the head of a calvary regiment with their player. From instruments of about 18 inches in diameter, each with six to eight tuning screws and displaying beautiful silver decorations, timpani since their adoption into the orchestra have grown nearly half again in size and, although the splendid decorations have gone, the elaborate tuning mechanisms that have replaced the simple screws are a no less impressive sight.

This evolution began during those years in which occurred the transition from the Classical to the Romantic period. Composers' desire for greater variety of tone colour, coupled with the tendency towards greater tonal expansion, had far-reaching implications for the development of the timpani as well as of other instruments. It was inevitable that composers would want to use the timpani more frequently and would therefore require them to be re-tuned more often during the course of a work. Some forward-looking timpanists realized that the old-fashioned, time-consuming tuning device, a loose key which turned each of the six to eight tuning screws individually, would eventually no longer meet the demands of the composers, and they began to experiment with new devices for re-tuning their drums more rapidly.

One of the earliest successful rapid-tuning or machine timpani was invented around 1840 by a firearms manufacturer, August Knocke of Munich. Knocke's tuning mechanism was not a revolutionary new device but essentially an extension of the ordinary screw-tuning system. The screws are elongated into rods which are all connected to a large disc under the kettle. The center of this disc joins a rod which in turn joins a toothed wheel. The teeth of this wheel interlock with the teeth of another wheel which connects to a rod at the bottom of which is attached the operative wheel. In order to change the tuning of the drum

the timpanist rotates the operative wheel - which corresponds to the pedal on modern timpani - with his foot; this then turns the series of rods and wheels which move the disc up and down. Thus all the screws, which connect to this disc, are tuned simultaneously by the motion of the timpanist's foot.

Timpani incorporating Knocke's mechanism soon earned an impressive reputation in Germany and beyond. In 1851 they received honorable mention at the Great Exhibition in London, and three years later they won the Medal of Honor at the German Industrial Exhibition in Munich. Ernst Pfundt, Mendelssohn's famed timpanist in Leipzig, saw the timpani in the opera house in Berlin, while the Court Theater in Knocke's own city of Munich acquired two pairs in 1841. They were made by the Munich firm of J. Kaltenecker. These drums presided over the long and impressive history of the Munich Opera for numerous decades; they are the very instruments for which Richard Wagner wrote and upon which many of his operas were first performed. By a fortunate and almost miraculous coincidence one of these pairs still exists. During World War II the timpanist at the National Theater, home of the Munich Opera, having lapped new heads to one pair, moved it out to another building for a week or so in order to let the heads dry. During that time, the National Theater was bombed and the remaining pair of drums destroyed. The surviving pair was used at the National Theater until 1963. One of the drums is now proudly displayed at the Deutsches Museum in Munich, while its mate remains stored in the nearby Prince Regent Theater.

Another advantage of Knocke's instrument, apart from the rapid-tuning mechanism, was the beautiful tone which resulted from the absence of any attachments on the kettle. The kettle was suspended freely from its rim; nothing was attached to it to support it, nor were there screw fixtures as on ordinary screw-tuned timpani. However, there were three major defects: there were no screws for evenly tensioning the heads; the operative wheel was somewhat awkward to turn; and the timpani were quite heavy and therefore difficult to transport. None of these defects concerned the speed of re-tuning the instruments: the tuning facility afforded by these timpani was more than sufficient to cope with the contemporary music, although through the elimination of the awkward foot device later machine timpani did provide more rapid tuning. Moreover, Knocke's timpani quite lived up to even our modern concept of what true, clear timpani tone should sound like.

In 1853 Friedrich Hentschel, timpanist of the Berlin Opera, designed a machine drum that combined the favorable aspects of Knocke's instrument with those of another, lever-tuned drum that had been popularised by Pfundt, and in 1881 Carl Pittrich of Dresden substituted a pedal for the lever on Hentschel's drum, thereby inventing pedal timpani as we know them today, for Pittrich's drum is the prototype of the so-called Dresden timpani used in many of todays American orchestras.

Percussive Arts Society Percussion Education Committee
William J. Schinstine, Chairman

Timpani Education Report

Timpani Education Sub-committee

Donald K. Gilbert, Chairman
Assistant Professor of Percussion
West Liberty State College
West Liberty, WV

Committee Members
Thomas N. Akins, Timpanist, Indianapolis Symphony
Stanley S. Leonard, Timpanist, Pittsburgh Symphony
Tele Lesbines, Timpanist, Milwaukee Symphony
Larry Mathis, Percussion Instructor, University of Alabama

Timpani Education

At the request of William J. Schinstine, chairman of the Education Committee for the Percussive Arts Society, a sub-committee was formed to study the problems facing teachers and students of timpani. Bill asked me to serve as chairman of this sub-committee. My first task was to enlist the help of four prominent timpanists and percussion educators whose expertise proved to be invaluable in the preparation of this report. My sincere gratitude is extended to the committee members: Mr. Thomas N. Akins, timpanist with the Indianapolis Symphony Orchestra; Mr. Stanley S. Leonard, timpanist with the Pittsburgh Symphony Orchestra; Mr. Tele Lesbines, timpanist with the Milwaukee Symphony Orchestra; and Larry Mathis, instructor of percussion at the University of Alabama.

In our initial correspondence, I asked each of these gentlemen to respond to a series of questions concerning timpani education and to add any questions that they deemed pertinent to this study. The responses were compiled and returned to the committee members and to Bill Schinstine, ex officio member of the committee for comments along with the additional questions. At no time did anyone other than myself know the identity of the author of any particular response. This process was repeated several times before the report was written in its present form.

It is hoped that the responses to the nineteen questions in this report will be of value to student timpanists, professional percussion teachers and perhaps most important of all, public school instrumental music teachers whose major instrument is not percussion. The opinions and suggestions contained in the report are those of percus-

sionists who collectively have played, studied, and taught timpani for many years. Through these years they have discovered certain techniques which have proved to be very effective in terms of obtaining maximum results in the quality of timpani playing. In addition, the committee members have studied with the best timpani instructors before them. In effect, what is contained herein are several generations of knowledge with regards to the art of playing the timpani.

It must be emphatically pointed out, however, that the suggestions and opinions as stated in this report are exactly what they purport to be, suggestions and opinions and nothing more. They are not the final authority on the art of playing timpani. At best, we have made certain generalizations in regard to timpani performance, but in the final analysis, even these generalizations must be modified to some extent to meet individual idiosyncrasies. Hopefully, teachers and students will use those suggestions that best meet their needs. If this report fills that purpose, then the committee has accomplished what it set out to do.

Donald K. Gilbert
Chairman

1. Should all percussionists be exposed to timpani instruction?

Yes, if one is going to call himself a percussionist, he must develop a certain amount of proficiency on the timpani. This is particularly true if the student intends to make a career playing percussion. There are times when a percussionist will be called upon to play timpani.

2. What are the factors to consider in selecting the beginning timpanist?
   A. Student must have a good general musical background including a good command of rhythm and such fundamental musical ideas such as dynamics, etc. He should be familiar with the concepts of melody and melodic intervals since timpani need to be tuned. He must be able to hear and match pitches, particularly in the lower range. This ability can be determined by administering any one of several music aptitude tests.
   B. Physical size and physical coordination should be taken into consideration. A student who is too small will not be able to reach the timpani heads comfortably, however by using roto-toms on a stand, which can be raised or lowered, this problem can be alleviated. Roto-toms are only a pedagogical tool, however, and of course should not be used for rehearsals or performances. The problem of physical size can be overcome if other musical factors are present.
   C. Development of timpani technique can proceed at a quicker rate if prospective students already have the ability to read music melodically, particularly with the use of bass clef.

D. A prospective student must have a personality which has qualities of leadership, self-assurance, power of concentration and quick reflexes. He must be intelligent, enthusiastic, and have enough desire to play the timpani in order to overcome the problems of insufficient practice, opportunities, equipment, disrepair, etc.,

3. What are the best types of timpani for beginning instruction; advanced instruction?

A. Since students will eventually be using the pedal timpani, a pair of pedal timpani (29" and 26") would be suitable for beginning instruction. Timpani with the Dresden foot mechanism should be avoided, however. This type of pedal may be too sophisticated for the beginning student. The use of drums with key tension rods instead of T handle rods will make the development of technique a little easier. The drums should have the best tone quality available. Some responses to this questionnaire suggest that timpani with fiberglass bowls are suitable for beginning instructions. All agree that for advanced and concert work copper bowls are the best.

B. Because of the growing demands of composers, timpani students should begin working with three and four timpani within the first two years of their training.

C. Advanced students should be familiar with all types of pedal timpani and hand-tuned timpani, both with plastic and calfskin heads. Because of the effects of climate and weather, a student using timpani with calfskin heads will be forced to be more pitch conscious. Training with hand-tuned timpani will also force the student to be more pitch conscious since he will relate pitch changes with specific tensioning experiences.

D. Large roto-toms can be good pedagogical tools for use in eartraining and all timpani techniques except pedaling.

4. Are mallets important at this point; what kind?

The majority of the committee agreed that even beginning students should use the best timpani mallets that are available. For the beginning timpanist a pair of general purpose mallets designed by some of the timpanists with the major symphony orchestras would be suitable. Such mallets are constructed by Hinger, Goodman, Firth, Carlisle and Payson. Before he reaches the high school level, the timpani student should also own a pair of staccato mallets and a pair of soft mallets.

Mallets with aluminum, wood and bamboo shafts have all been recommended. There was no consensus among committee members as to the superiority or inferiority of one over the other.

Construction of mallets should be discussed at the advanced level and students should be encouraged to experiment in making their own mallets. One recommended text for this purpose is *Mallet Repair* by Arthur Press.

5. What criteria should be used in selecting method books.

A. The rate of progress should not be rapid, particularly for younger students. Progress should be from known to unknown, that is , all new information should be based on something that is already known. For younger students, constant review and reiteration of basic material is important.

B. A good method book should present an organized approach to practice.

C. The photographs or illustrations should be of the best quality and up to date, particularly in those areas dealing with hand positions and grips.

D. A discussion concerning different types of mallets and when to use each type should be included.

E. The method book should contain a clear explanation of the basic concept of tone production and a musical rather than a percussive way of developing tone.

F. Exercises emphasizing tuning changes, while counting measures of rest, should be introduced early.

G. Technical demands should include in addition to single strokes and rolls such concepts as unusual stickings, dynamic control, and legato and staccato styles of timpani playing.

H. The musical material should include exercises in a variety of time signatures including the odd meter signatures, i.e.

$\frac{5}{8}$ $\frac{7}{8}$ etc.

I. Exercises should be well supplemented with solos or the exercises should be given titles. Nothing is duller for a student than to have to play exercise after exercise ad infinitum.

J. A good method book should be musical as well as technical. Elements of music theory and form should be written in a variety of forms, i. e. binary, ternary, rondo, etc. with appropriate explanations of such forms. Such additional musical elements should not be so abundant or cumbersome so as to defeat the purpose of the method book, i.e. teaching students how to play the timpani.

6. What instruction books currently available are best to use for beginners; for advanced students?

Beginning Methods

McMillan - *Basic Timpani Technique* - Pro Art
Whaley - *Fundamental Studies for Timpani* - jr Roth Pub.
Whaley - *Musical Studies for the Intermediate Timpanist* - jr Roth Pub.
Saul Goodman - *Modern Method for Tympani* - Mills Music Inc.
Thomas Akins - *The Musical Timpanist* - Kendor, Inc.
Friese-Lepak - *The Alfred Friese Timpani Method*
Ludwig - *Ludwig Timpani Instructor* - Ludwig Drum Co.
Gardner - *Modern Method for Percussion,* Part III - Carl Fischer
Hochrainer - *Etuden for Timpani,* Volume I

Advanced Study

Firth - *The Solo Timpanist*
Hochrainer - *Etuden for Timpani,* Volume II
Hinger - *Timpani Technique for the Virtuoso Timpanist*
Lepak - *32 Solos for Timpani* - Windsor Music
Begun - *Twenty-One Etudes for Timpani* - Benjamin Thomas Publications

7. What is the best method of teaching tuning?

Ideally if a school system has a good music program in the elementary schools (kindergarten through grade six), the problem will be greatly alleviated. Since this is rarely the case, the following steps have been suggested:

The student should learn to match pitches vocally using a pitch pipe for a reference point. (Pianos should not be used since most pianos are out of tune.) The use of a pitchpipe as a reference point should be discarded in favor of a tuning fork and eventually the memorization of certain tones as tuning references.

B. The student should match a given pitch on the appropriate drum.

C. The student should be able to sing and hear all intervals starting with 4th and 5ths.

D. The student should be able to tune the drums to all intervals starting with 4ths and 5ths progressing to 3rds and 6ths and 2nds and 7ths.

E. The student should be able to change pitches on the drums while counting measures of rest. Initial attempts at this point should have wide spaces of time and small intervals.

F. If three or four drums are available, the student should learn to tune to major and minor triads or chords.

G. The student should be taught from the very beginning to tune as quietly and as quickly as possible.

H. The student should be taught to tune the timpani by using the mallet as well as the "finger flick" and by humming the desired pitch into the drum until the drum responds with the correct pitch.

8. How can tuning be taught when the music director sees his percussionists only in a heterogeneous class situation?

   Music directors in this situation will have to find a minimum amount of time at some point in the student's schedule when instruction on tuning can be taught. This type of instruction calls for a one to one teacher student ratio. Ideally, the non-percussionist music director should send his students to a percussion specialist at the nearest university or symphony orchestra where such instruction is available. When this is not possible, time will have to be taken from study halls, lunch periods, before school, after school, etc. to fulfill this responsibility. At the very least, a percussion class should meet once per week at which time tuning can be taught. Tuning should be an important factor in auditions for first chair position. Students should be encouraged to practice singing intervals at home or away from the classroom.

9. Should beginning students know anything about care and maintenance of the timpani?

   Yes, with the prices of timpani constantly spiraling upward, it is important that the student know something about care and maintenance of timpani, beginning with the first lesson. Such basic information as the importance of keeping the drums covered when not in use, not using the heads for tables, moving the drums carefully in order to avoid denting the copper bowls, etc. can be learned from lesson one. As the student matures, he can then learn about tuning the drum to itself, removing squeaks, adjusting the spring pedal mechanism, etc. By the time he graduates from high school, he should be capable of taking care of any problems involved in routine care of the timpani. In addition to gaining knowledge of the mechanics of the timpani, he can be of enormous help to the music director by taking care of routine timpani maintenance.

10. Should the timpani student know anything about the history of the timpani?

    Introducing some background history to the beginning student gives him some perspective on the nature of the instrument and its use in music. This should be done on a need to

know basics. Too much "studying" and not enough playing at the beginning level could easily discourage a student. At some point in time, however, before the student graduates from high school, he should be well acquainted with all facts of his instrument including at least a brief history. A history of the instrument will enable the player to make intelligent decisions regarding performance practices of any particular stylistic historical period. Thus, interpretation of a passage in a Beethoven or Mozart symphony will be more accurate if the student knows what type of timpani were available at the time the composition was written. One recommended text is *Percussion Instruments and Their History* by James Blades which is available in paperback.

11. Should we do away with and discourage the German grip in timpani playing or is there any merit in this grip?

    The consensus of opinion seemed to be that both the French and German grips and modifications of both should be learned by all students. The exact grip will vary from situation to situation. There was some suggestion that the French grip is superior in tone production, finesse and control, however, to my knowledge no studies have been done to support this suggestion with scientific evidence. The playing grip is a very personal matter, and each student should take the best features of all grips and use them to his own advantage.

12. What suggestions can be given to the student so that he can make the most of his practice time?

    Practice time should be organized. In general there are four areas in each practice session: warm up, tuning, exercises, solos, technique, etc. and sightreading. Practice time should be on a daily basis. Short segments with rest periods in between is preferable in order to sustain interest and concentration. If possible, the student should practice in a quiet place where unnecessary distractions can be avoided. It might be wise for the student to set short term goals for each practice period. Tuning and all areas of technique (i.e. single strokes, rolls, exercises, etudes, and other solos) should be included in all practice periods. If timpani are not available, the student can use roto-toms. He may often need to improvise. Magazines and books can be substituted for drums to practice cross-sticking. Even pillows can be used to practice roll strokes. Practicing in front of a mirror will help the student detect technique errors.

13. How valuable are contest solos in developing a good "ensemble timpanist"?

    It was generally agreed that contest solos can help to develop technique and perhaps good listening habits, but ensemble playing presents unique problems, such as balance and intonation, which cannot be solved in solo playing.

14. How good are the timpani parts that are found in most school scores? Should composers write timpani parts that are more challenging to school timpanists, and if so, how?

    In looking over the responses to this question, I have found no consensus of opnion. Some committee members felt that timpani parts are too challenging, others felt that they were not challenging enough. Some felt that timpani parts should utilize more difficult techniques and more tuning changes in advanced works; others felt that composers should write more musical parts. Certainly, with the advances in timpani manufacturing in recent years, composers can write challenging timpani parts that are still musical if they know what can and cannot be done with timpani (which is rarely the case).

15. Should the *beginning* student be encouraged to study scores and recordings in order to learn their parts?

    Opinions concerning this question were equally divided. Some members felt that students at any level should study scores and recordings. It was felt that timpani parts are too abstract and difficult when studied alone. By studying scores and recordings, the student can develop an accurate concept of the whole work of which he is a part. Others felt that the beginning student had enough problems with which to contend and should wait until he has developed a certain technical proficiency and musical background before studying scores and recordings. It was suggested however, that beginning students should be encouraged to attend concerts and observe professional timpanist, at work.

16. What are the virtues of sitting versus standing while playing?

    Sitting on a swivel stool which has a height adjustment frees the feet for fast pedal manipulations and helps to prevent fatique; however, certain passages may be easier to play in a standing position. The majority of the committee members agreed that most student's playing should be done while he is seated, but that he should be versatile enough to adapt to any situation.

17. How many "styles" or pedagogical schools of thought should the student be exposed?

    It was generally agreed that students over the course of their career should be exposed to as many styles as possible; however, at the beginning stages of development, each student should maintain one particular style. As he matures both physically and psychologically, he can explore other schools of thought and assimilate what he needs in order to handle any given situation. Eventually the timpanist will develop his own personal style which should be the product of many schools of thought.

18. What techniques can be used to teach students the concepts of stick control and good tone quality?

This question produced as many different answers as there were committee members. However, all responses had several factors in common. In terms of tone quality, all agreed that the student must learn to draw the tone out of the drum. This goal can be accomplished by concentrating on the rebound or lifting action of the mallet. The necessity of relaxing the fingers, hands and arms was another factor upon which the committee agreed. The student must also be aware of the correct playing area on the drum. He must avoid the "dead spot" in the center of the drum and the thin sound produced by playing too near the edge of the drum, unless this sound is specifically requested by the composer.

It was mentioned that stick control techniques could be developed by practicing exercises which emphasize alternate sticking, double sticking, back sticking, and cross sticking. Moving smoothly from drum to drum and being in position (at the right drum at the right time) is an important part of stick control. Fundamental rules for developing this skill must be taught.

19. Should the student be encouraged to obtain timpani for use at home? Are there any alternatives for the above situation?

Of course everyone agreed that timpani at home would be ideal, but in most circumstances, financially impractical. It was pointed out, however, that at least during the summer months it might be possible to borrow school equipment for home use. A number of alternative instruments were suggested. Of these, a set of rototoms would be best. For developing stick technique, snare drums, concert tom-toms, stools, chairs or even books will do. Tuning exercises must be done on tunable drums and pedaling techniques must be learned on timpani. In the final analysis the serious timpani student must find time in his school schedule to practice on school timpani.

Letters to the Editor

Dear Neal:

I certainly enjoy reading your publication, The *Percussionist*, however, I note an oversight in an article on page 122 of the Spring/Summer 1978 issue in which author Mario A. Gaetano, Jr. states, "Java is now a province of the Netherlands." This is in direct conflict with his opening statements on page 121 and leaves one wondering if the author is aware of the facts. To set the record straight, actually, Java is an island (not a province of Netherlands or country) and a part of the independent country Indonesia. I presume that errors like the above come from using old, out-dated sources that tend to be in conflict with updated material.

Sincerely,
G. Jean Smith, editor
NSOA Bulletin and The American String Teacher

Dear Mr. Fluegel:

I would like to publish a few remarks regarding my article "The Vibraphone," which appears in *Percussionist* (Summer 1977: 77-93, Fall 1977: 20-40). (This article, incidentally, is a revised and by no means flawless edition of my 1976 Catholic University Master's thesis.)

First, I would like to thank the several readers in Europe and in the States who have written to me expressing interest in and offering futher information on the history of the vibraphone. I would like especially to thank Mr. Michael Holloway for publishing his notes on the instrument in England *(Percussionist,* Winter 1978: 104-105). I hope that other readers will contribute their knowledge on this topic, either by publishing articles in *Percussionist* or by writing to me in care of the Percussive Arts Society. I may at some time submit for publication a supplement to my article based upon these informative letters.

Second, I wish to apologize to Ms. Gitta Steiner and to other composers of music published by Seesaw Music Corporation, as well as to Mr. Raoul Ronson, President of Seesaw, for my erroneous listing of several Seesaw compositions as publications of TRE Music Company (Fall 1977: 32-34). Whereas in many cases throughout my brief catalog I substitute the names of distributors for those of publishers because of availability factors, I was for a time under the mistaken impression that TRE had become the sole distributor of some works previously published by Seesaw, and for this, again, I apologize.

And finally, I must register a minor complaint with the Editors of *Percussionist* regarding the numerous typographical errors which appear throughout my article, many of which obscure my intentions for

capitalization, spelling, punctuation, and style. Whereas there errors may appear slight to the casual reader, I would imagine that they are annoying and confusing to those who expect and appreciate proper English grammar. The errors are particularly distasteful to me, since the typescript which I submitted, although significantly revised from the original, is letter-perfect.

Sincerely,
Harold Howland
3708 Rolling Hills Avenue, C2
Alexandria, Virginia 22309

P.S. My footnote number 87 (Fall 1977: 31) was inadvertently omitted by the Editors. It should read as follows:

In reference to these and other literature-related problems, the writer suggests that the only truly useful comprehensive catalog of music for bar percussion instruments is the current edition of Wallace Barnett, comp., *The Mallet Percussions and How to Use Them* (Chicago: J. C. Deagan, Inc., 1976). For more specific information the reader must obtain materials from individual publishers. (When I wrote "The Vibraphone" in 1976, I believed this information to be true. Whether it, together with certain other things which I believed then, is true today is, of course, doubtful. I include it here only because it should have been included in my article.)

Dear Mr. Fluegel:

It is to our better interests in securing accuracy amongst percussionists to allow more familiarity with measurement of (ethnomusicological) scales. In two recent articles, (Volume XV, Number 2; Volumne XV, Number 3) "tunings" or "Tuning Systems" were listed, each using 1200 cents to the octave (100 cents per half step). A proper standard which has been used in comparative analysis of scalar/intervallic characteristics. There is the problem, a standard in use; discrepancies in real value not allowed for by a parameter of syllogism(s).

One author chose to begin the scale on C (p. 62, v. XV no. 2), and the other author chose *E* (p. 124, v XV no. 3). Neither is correct if both are proper in assumption. Example: *EFGABCDE* scale would not hold the same intervallic ratio(s) (2:1, octave/5:4, Major third) if shown to be (1.) Phrygian mode (2.) form of a C scale or (3.) a preplanned form of intervallic relations. My proposition is to offer more accurate definition with a table of frequencies (cycles /second, A-440) and/or intervallic ratios (one tone to another, 2:1, 15:8, 256:250). The intervallic ratios are more probable as they: offer the method by which many non-western musicians tune, aid in defining tension and consonance relations, do *not* define a starting or "mother" note as a specific frequency (this varies within native societies through different periods of time), and

allow for adjustment when it is known *how* tuning is achieved. Examples of mannerisms with tuning being (1.) from lowest to highest pitch/highest to lowest pitch (2.) in a series of 9:8 (Major second?) or 5:4 (Major third?), (3.) in a disjunct manner (up 2:1, down 4:3 or 3:2, up 9:8, down 5:4/pentatonic scale) (4.) or as in some African xylophone tunings, certain intervals are tuned in relation to other intervals! Mr. Gaetano explored this after his statement of "cents" and was most helpful, Mr. Chappell explored the mechanical construction which was not detrimental to his purpose. It shall be reiterated that an explanation of a "series" of intervals in a specific or non-specific (as many in our culture have given us pleasure) arrangement needs more accuracy than a few "cents" of comparison.

In hopes of continuing scholarly research and study, metric weights and measures stated with our English equivalents would allow for ease of interpretation for the present, abroad and for the future, here. In debt to the service of the Percussive Arts Society, myself and a "World of Percussion."

Cordially,

Michael C. Hakes
Student in Percussion Performance
College-Conservatory of Music
2635 Bellevue Avenue
Cincinnati, OH 45219

o

President's Corner

Percussion music is alive and well. This is the analogy that one can draw if they attended any of our last three conventions. The state of percussion music as performed live, speaks for itself. Everyone who attended the recent convention at Tempe, Arizona was impressed by all the outstanding clinics and performances presented during the three day conference. This is a testimony to the Percussive Arts Society and to all percussionist, and that percussion music played live is the best reason for having a P.A.S.

Current projects include an update of the research aspect of P.A.S. and in addition to our annual composition contest; an update of the Discography listing, the Research Collection, Notation Booklet, as well as producing a recording of the Marimba Orchestra at the P.A.S.I.C. '78.

We are endeavoring to improve our services to you through our 1) publications, 2) conventions, 3) projects and committee involvements. If you wish to become involved feel free to send me a note.

SUSTAINING MEMBERS OF THE PERCUSSIVE ARTS SOCIETY

We would like to express our appreciation to these outstanding organizations in the music industry for their support of Percussive Arts Society, Inc. and hope they will continue to consider PAS as a worthwhile and stimulating force in the percussion world.

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