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PERCUSSION NOTATION

By Frank McCarty

About the Author:

Frank McCarty is currently the chairman of the Composition Division in the School of Music at the University of North Carolina at Greensboro. He has written several published and un-published compositions and arrangements for percussion solo and ensemble. Originally from California, he received his Ph.D. in composition from the University of California at San Diego, was a member of the San Diego Symphony percussion section for ten years, and was also Timpanist and Principal Percussion with the Orange County Symphony.

Introduction

In a scant two hundred years, the 'tinkle-boom-crash' from the back of the pit and the military 'rat-a-tat' have developed into the highly-evolved technology of the present. Composers have generated a large and diverse literature which now rivals that for wind instruments in solo and Chamber works for percussionists as well as music for the Percussion Ensemble. Arrangers have adapted music for keyboard percussion so that we may now also experience and perform styles which were previously inaccessible. The maturation process from 'drummer' to 'percussionist,' seen especially since the Second World War, has raised us from the status of 'second-class musician.' And now we are often faced by the most severe musical demands encountered by any performer. Unfortunately, some of these demands are confusing and unnecessary since many composers and arrangers simply don't understand the dynamics of modern percussion performance. Such misunderstandings are especially common in Notation and Terminology.

Unlike the musician who develops skills on a single instrument, the percussionist must acquire a multiplicity of techniques and apply them to many different instruments. Percussionists are often trained and experienced in several performance styles: rudimental, large ensemble (bands and orchestras), Jazz/Pop/Commercial, as well as solo and Chamber Music. Further, percussion performance has been placed in the foreground by music of the avant garde. In turn, more conservative composers and arrangers have adapted many new techniques to their own purposes. As instrumentation and performance demands increase notation becomes an even more critical factor.

During its fifteen year history, the Percussive Arts Society has done much to improve the entire field. The high standards emerging in performance, teaching and research reflect the impact of the work of our organization and our abilities to propagate positive values. The Notation and Terminology Committee of the P.A.S. has made major strides towards our organizational goal through the publication of reports in the *Percussionist*, holding regional meetings and workshops, and in the preparation of the seven-page document, "Standardization of Percus-

sion Notation" in 1973. Credit should be given to Wallace Barnett and Gordon Peters, former Chairmen of this committee for that enterprise as well as to my predecessor, John Galm, for his work in pictograms.

The present committee on Notation and Terminology[1] has addressed itself to the problem of the ever-widening gap between the modern, diversely-skilled percussionist and the notational inconsistencies of the music he plays. Our work is aimed towards the center of the range of styles mentioned above. Although we acknowledge and respect both Rudimental Drummers and members of the Avant Garde, we are neither going to suggest a better notation for "The Three Camps" nor recommend that the notations in "The King of Denmark" be accepted as national standards. Our recommendations will attempt to be as 'a-political' as possible; they are suggestions meant to serve the notational needs of the greatest number of percussionists. In many cases we simply re-affirm commonly-used techniques, but in some instances we will attempt to reconcile contradictions between them. We will not arbitrarily change or create any notational procedure; this is the job of the composer. All of the suggestions contained within this material come directly from well-known music of today. Our main attempt is to strengthen the notational language between composers and performers by simplifying and clarifying its content and standardizing its applicability without, however, limiting its potential for expansion.

After all, percussionists *want* to be able to play well. Before the music may be rendered properly, we must at least know the exact type of instrument and beaters desired. We also expect that the musical gestures will be clearly and idiomatically notated, but if not, we usually solve these problems ourselves. Only at this point we can finally get into the music.

This package is intended as a logical continuation of the materials contained in the 1973 "Standardization of Percussion Notation." There will follow three articles detailing the activities of myself and the committee in notation research and suggesting procedures and standards. The first article will cover the questionnaire on percussion notation I sent around the United States in 1974. The second article includes developments of this material made by a panel of experts during the International Conference on New Musical Notation in Ghent, also during 1974. The third article will correlate the questionnaire and Ghent Conference results with more recent information and present recommendations for standards, optional notational techniques and suggestions for further research and development.

We hope that the P.A.S. membership will read this information and pass it on to other interested individuals--especially composers and arrangers. We strongly solicit written reactions to what we have presented, which may be addressed to this journal or directly to me.

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Percussion Notation: Report on a Survey

As one of the panelists of the 1974 International Conference on New Musical Notation, I was invited (along with Christoph Caskel) to lead the group session in Percussion Notation. The conference organizer, Kurt Stone, requested my help in supplementing the percussion research they had already carried out. At that time they were confronted with inconclusive information, contradictory notational "systems" and many idiomatic questions which could only be answered by someone experienced in both percussion performance and composition. In collating and developing material to be presented to the Conference, I soon realized that many notational questions could only be solved by presenting them to a large group of performers.

I thus prepared a survey to be circulated among American percussionists. The project was jointly sponsored by the Percussive Arts Society and the Index of New Musical Notation. Some research and secretarial help was also given by the University of Pittsburgh Music Department, where I was then employed. The survey would attempt to obtain national consensus on existing notational practices and give percussionists the opportunity to cite problems, air grievances and make recommendations. Materials for the survey were drawn from information supplied to me by Kurt Stone as well as from my own experiences and research. The bibliography at the end of this article lists the main sources that were consulted.

Extent and Limits of the Survey

In agreement with the purpose of the Ghent Conference, the survey was limited to elements of and extensions within our standard, traditional system of *Staff Notation.* Newer, often 'graphic,' systems are too special and distinctive either to offer or require any standards at this time. But, as more of their elements become commonly used, standards may well have to be adopted. It is, however, too soon for such a venture. Further, most music being composed today is still cast in our conventional system without limiting its effectiveness. Most smart composers use as many conventional notational devices as possible. It must be added that the term "staff notation" does not necessarily mean percussion parts should be written on a five-line staff. Single lines, abbreviated staves and more than five lines are all common elements in percussion parts. The unifying characteristics of this system include dimensionality (vertical -- distribution of pitch, horizontal -- the flow of time),

symbology (duration, articulation, special effects), and verbiage (words and abbreviations for loudness, performance style and other special effects).

This survey has also attempted to avoid typical stylistic biases often observed in writings on the subject. I attempted to present materials of potential value to *most* percussionists who commonly read from 'staff notation.' Some of the issues which are still perplexing to rudimentalists, other items of special interest to jazz players or to members of the avant garde were avoided. Notations for specific techniques within specific performance styles were ignored unless their application was of potential benefit to the majority.

Another primary concern was for language and terminology. The common use of Italian as the "language of music" has long since past. Today, the percussionist is often faced by severe language problems. To encourage world-wide dissemination and performance of our and other countries' musics, such problems must be minimized. A powerful notational symbology is a better answer than the necessity for lists of terms and Music Dictionaries in several languages.

Finally, I felt that the survey should give percussionists the opportunity to air their problems and state their preferences. Our medium presents difficulties unlike those faced by any other type of musician except, possibly, the performer of Live Electronic Music. Composers must learn from us exactly what they should expect in a given situation and how best they can elicit a powerful performance.

Format and Distribution

The survey included a brief introduction of some of the concepts mentioned above followed by twenty three general statements about scoring and notation. Fifteen of these topics had, in some way, been covered by the P.A.S. "Standardization" document. Respondents were asked to vote "yes" or "no" on each item or, if desired, to offer alternative suggestions. Eight general questions followed which called for written opinions. A list of 69 pictograms representing percussion instruments and beaters filled the last page. Those surveyed were asked to agree or disagree with each symbol or, if desired, to suggest changes. The survey filled both sides of two legal-size pages and included a prepaid return envelope.

Two hundred questionnaires were mailed to cover the United States with the following distribution: 150 larger College and University Percussion Departments, 25 Major Orchestras and 25 percussionists not primarily associated with either of the above. A larger percentage of surveys went to areas of higher population density.

Questionnaire Returns

Of the two hundred copies sent out, over eighty were returned

within three weeks; the statistics below are based upon this number, although more copies continued to arrive. In all, the returns were close to fifty percent, showing a strong and positive concern by American percussionists.

Votes for the twenty three general questions were grouped into four categories: "yes," "no," ". . .depending upon. . .," and no answer. If both "yes" and "no" were marked (often accompanied by written clarification), the answer was tabulated as a "maybe." Thus the overall positive results of this survey were not inflated by tentative answers. Responses to the eight opinion-areas were also tabulated. Majority opinions will appear below along with some of the more meaningful statements by respondents. Specific responses to the pictograms will appear in a future article.

A few returns cited objections to my use of such constructions as ". . .all. . .," ". . .never. . ." and other inclusives or exclusives. With the realization that all rules have exceptions, and, that I wished to form the statements in as strong a manner as possible, all those surveyed were able to deal with the problem, and, in fact, many wrote copious and valuable qualifications of their answers. Only *one* response rejected the premise of the survey, writing "This is silly" across the page of pictograms! Most returns were both well-prepared and encouraging, often including suggestions for further study. A few returns included copies of other writings on the subject, all of which were used to expand this material for its presentation in Ghent.

Results of the Survey

Close to 90% agreed that percussion notation should conform to that used for other instruments in as many ways as possible. While this is supported in the PAS "Standards. . .," exceptions also abound. On page two they state that only standard note-heads should be used ". . .unless (others) would help clarify an involved situation." No further clarification or examples are given. The survey returns are just as ambivalent. 68% agreed that only standard note-heads should be used while only 4% voted "maybe." The solid 28% "no" vote seems to indicate support for the use of the common "X" for cymbal crashes. While this in itself is a harmless convention, any extension of the technique is dangerous. There are several problems in used specially-shaped note-heads. An "X" cannot communicate durations of more than a dotted quarter without being modified. Note-heads of geometrical shapes are clear when printed, but difficult to represent in manuscript. The "X" is overused by many composers anyhow. And finally, there are better available techniques to convey instrumentation. If shaped note-heads can be of value, they should be used for elements outside of staff conventions such as timbre modifications and other special performing techniques. Such issues are beyond the intentions of this report but should be considered in the future.

Durations, Reiterations and Ornaments

Percussion instruments have natural decay-times which may be categorized as either short or long. Decay-times may be further shortened and certain timbral characteristics may be inhibited through such techniques as muffling, muting, dampening and so on. Decay-times may be extended by reiteration (roll, tremolo) or by bowing. These acoustical factors form the basis for durational notation.

I do not understand why only 54% agreed that "Single strokes on short-decay instruments (woods, smaller skins) should be indicated by short durational values." This statement received 45% 'no' votes, the largest number for any item in the survey. A contrary practice is popular in "Junior High School Music," where rhythms are often homophonic. In cut time, half note melodic values would conventionally be doubled by half notes in the snare drum. Although I disagree with such a general practice, I acknowledge its benefit within this restricted context. Several respondents added the word 'simple,' making the expression read ". . .simple, short durational values." Such a statement reflects concern about composers who are so specific about short duration that they use a profusion of rests around the desired note. This is confusing in syncopation and can hamper accurate sightreading.

87% agreed that single strokes on long-decay instruments should be indicated with the desired durational values. The player is expected to stop the vibrations at the end of the notated duration. 70% of the respondents agreed that *Lasses vibrer* (L.V.) and ties from note-heads (not attached to other note-heads) should be used for fermatas and decays of indeterminate length. The PAS defines "L.V." as a notation which ". . . should only be used to show that other instruments rest and a specific one or ones continue to vibrate." They then give an example of a half-note with a tie coming off into space and the letters "L.V." Such a notation involves unnecessary redundancy. Either "L.V." or the tie is generally sufficient. A comma may be used to indicate the cutoff of an "L.V."

While a short sound on a long-decay instrument may be notated simply by specifying the desired duration, a staccato mark for the note head and/or the term "sec." (secco) may be used to clarify if necessary. In such a case, the percussionist would normally stop the instrument's vibration with a hand. 69% of the respondents agreed that the term "dampen" indicated that a foreign object (hand, wallet, cloth, etc.) was placed on an instrument to shorten its decay time, soften its volume and inhibit certain timbral characteristics. Several notations may be used depending upon the specific dampening technique and the composer's intentions. As in horn notation, the symbol "+" may be used to indicate that an instrument is inhibited from ringing, (stopped) and the symbol "o" cancels such an indication, allowing the instrument to ring freely. I suggest that the rudimental term "muffle" only be construed to indicate the traditional technique of removing and inhibiting the vibra-

tion of snares and optionally de-tuning and/or dampening the batter head. In other styles of performance, the term "mute", "muted" or "sordino" should refer to placing some special dampening material on the instrument. To summarize, "dampen" is a generic word applied to all procedures: "damp" or a *comma* indicates that vibrations are stopped by a hand or mallet; "+ and o" should be used to simplify a series of open and closed vibrations; the terms "mute" or "sordino" refer to a stationary foreign object placed on the surface of the instrument. Notations for pedal-dampening on instruments such as chimes and vibes should conform to those already commonly used for piano and celeste; 93% of the respondents agreed with this statement. The term "stop" should be avoided because of its multiple connotations.

Confusions between rudimental and concert styles have created problems in the notation of rolls, flams, ruffs and drags. In most cases, the type of roll used on any given instrument should be determined by the percussionist, based upon his training and ability to conform to the proper performance style. 95% of the returns agreed: "The roll is the attempt to produce a 'sustained sound' on a percussion instrument. While the technique may vary from instrument to instrument, the musical intention is the same and should be controlled by the performer. 90% of the returns also supported the concept that "The roll should be notated as a single-pitch tremolo (not trill) with enough slashes through the stem to prevent its interpretation as single strokes." The PAS publication states that rolls should be equivalent to 32nd notes. In general this procedure can be followed, but some composers such as George Crumb are tending to use shorter and shorter note-values. Thus the ". . .enough slashes to prevent its interpretation. . ." rule is more general and workable.

While some have attempted to differentiate between rudimental and "concert style" rolls, in 99% of all musical situations such a technique is meaningless and can be confusing. 75% of the respondents agreed that the "concert roll" is the *standard* roll, and that the rudimental roll should only be used in musical situations demanding it. As in writing for other instruments, technical style factors should not normally appear in the notation. The performer should interpret the notation based upon the musical context itself. Any special notation for the 'concert roll' (the commonly suggested one conflicts with the indication of an uneven, jerky tremolo in contemporary string writing) implies that the "standard" roll is the rudimental one; this is simply not the case. Again, the same general notational concept should also be applied to other ornaments, flams, drags and ruffs. 86% of the returns agreed with the simple statement that these should all be notated and interpreted as grace notes, period.

Dynamics

Percussion dynamics should equal those given to other instru-

ments and not be "written down" one or more levels because percussion is sometimes played too loudly. Although the PAS brochure does not deal with dynamics, 82% of those surveyed agreed with the above concept.

Staves and Clefs

The practice of writing non-pitched percussion parts in bass clef on the five-line staff has been with us for many years. But we must realize that such a procedure was never especially desirable. It was simply easiest thing to do since commonly-available manuscript paper only included five-line staves. While such a technique may continue in many musical contexts, alternative scoring procedures are available for simpler and more precise notation. The following procedures were approved by from 55% to 70% of the respondents.

1. The five-line staff with associated treble and/or bass clefs should be used for instruments of definite and changeable pitch.
2. Single lines and a neutral clef should be used for single, non-pitched instruments.
3. Families of non-pitched or relatively-pitched instruments may appear on condesned staves with a neutral clef or, in some instances, a five-line staff might work just as well.

Percussion Parts

Percussionists generally read from three different types of parts.

1. A single instrument part, common to solo literature or used when one instrument is played throughout a given movement or work.
2. A solo-multiple-percussion part in which two or more instruments are assigned to one performer by the composer in Solo, Chamber and Orchestral contexts.
3. A percussion score in which two or more instruments are played by two or more performers. These are commonly found in large ensemble situations where the responsibilities are determined by the section leader.

The design of orchestral percussion parts was of special concern to those surveyed. Many symphony musicians cited the common need to condense single parts into a percussion score. 92% of the responses agreed that "Tacet" should not be used except for entire movements and many added that significant "cues" are also necessary. While a total of 68% agreed with the "percussion score" concept, other elements must be considered. In general, timpani parts should be separate. Also, some percussion scores call for so many instruments that page turns are

problematic and finding individual notes is difficult. The composer or arranger must be aware of scoring alternatives and select the proper one to suit the number of instruments and players required. Some large ensemble music now has a solo-multiple-percussion part for each member of the section. Incidentally, the traditional differences between percussion parts for band and orchestra are, by now, meaningless and should not be presented.

The P.A.S. suggests the following percussion "score order."

1. Keyboard Percussion
2. Non-pitched percussion, in order of relative pitch, high to low.
3. Timpani

Although useful for general applications, this list is neither detailed nor flexible enough for percussion scores or solo-multiple-percussion parts. 76% of the respondents approved the following ordering with minor reservations.

1. Non-pitched glass and metals, grouped in families from high to low.
2. Non-pitched woods, grouped in the same manner.
3. Keyboard instruments.
4. Non-pitched membranes, grouped in families from high to low.
5. "Effects."
6. Timpani.

Several returns mentioned that the score order effects the way in which the percussionist sets up his instruments. Composers and arrangers should be aware of this factor as well as allowing for such issues as "left handedness," sizes of larger instruments and potential reach problems. Several individuals felt that overly detailed specifications about sticking and instrument setups were often disadvantageous.

Two other solo-multiple percussion procedures were each approved by 85% of the returns.

1. Families of instruments should be braced together but single-instrument lines should not be equidistant.
2. As suggested by Smith-Brindle, parts calling for a large number of instruments may be condensed on to multi-purpose single lines through the use of instrument symbology.

Additional information on scoring alternatives and the concepts behind them will appear in the third article of this series.

Percussion Instruments and Beaters

While preparing the survey, I was convinced that the most controversial item would be the use of pictographic symbology to represent instruments and beaters.[2] I was wrong! To the statement: ". . .an In-

ternational symbology should be adopted. . ." an overwhelming 87% concurred. This majority contradicts the implication of the PAS survey that English language words and abbreviations should be used. A detailed coverage of pictographic symbology for instruments and beaters will be included in the second and third articles in this set. The future discussions will also suggest contexts within which pictograms seem to work best and others in which words and abbreviations might suffice.

The average percussionist uses around forty pairs of beaters for normal work; many own hundreds. Even though most composers specify beater-types within scores and parts, problems still arise. To the question "What type of mallet would you use if the score called for a suspended cymbal roll with timpani mallets?", only six responded "timpani" while four more said "felt mallets." The other 88% of the answers included such terms as "yarn," "medium yarn," "vibe mallets," "M8," "yellow yarn" and so on. One of the most telling answers came from a member of *Blackearth:* ". . .yarn, unless I think the composer knows what he wants."

The diversity of terminology applied to mallets by *percussionists themselves* is compounded by the numbers and varieties which they use. Even though some composers understand mallet selection quite well the percussionist cannot always trust specifics. In the case of the cymbal roll it is clear that the percussionists learned to interpret the composer's intention rather than his notation. Even more subtle interpretations are often necessary. A sensitive performer would change mallet selection between rehearsals in a "dead" space and performance in a "live" one. If not, a conductor might request such a change or, at least, react to the difference in sound. To adapt to such realities, the composer should be willing to make *general* specifications and trust the percussionist to make correct selections. Use of the qualifiers "hard," "medium" or "soft" is probably the best solution.

The same terminological problems may also be found in reference to percussion instruments themselves. What does "suspended cymbal" mean? Size and thickness together determine cymbal "pitch" and sound. Again, the percussionist must understand the composer's intention and come as close to it as possible.

The extent to which a percussionist must interpret a part is often amazing. Composers sometimes specify things to "help" percussionists which, in the long run, only get in the way. Over 80% of the respondents have re-notated percussion parts. *Histoire du Soldat* seems to have been a favorite re-notation project. Ordering instruments from high-to-low, beaming into metrical units and removing sticking-oriented stem directions were all mentioned in this regard.

Many percussionists answering the survey felt that composers often made more tactical errors than purely musical ones. Over half of those responding felt that changes between instruments and/or mallets

were often more difficult to reproduce than the music itself. Setup of instruments and the necessary movements between them, proper mallet and stick selection, and general sticking problems were consistently cited as aspects of percussion most often misunderstood by composers. Certain basic technical issues were also of concern as indicated by a comment referring to ". . .mallet parts written by composers who tried them out on the piano using all ten fingers. . . !" Many also felt that composers misunderstood aspects of duration and decay-time of various instruments. Improper instrument ranges, questionable dynamics, missing articulations and overly complex notational symbols were also cited as common problems. But, even with all the above, only 30% of the surveyed percussionists mentioned instances in which they felt that composers had made unreasonable demands. As a group, percussionists seem to be very open and cooperative, but as a group, they plead for help, for standards. The overwhelmingly positive responses to this survey (no item received less than 50% support) represent a strong consensus among percussionists.

I am very grateful to the percussionists who participated in this survey and am happy finally to publish the results. Readers are encouraged to respond to the information contained herein. Such responses will help us formulate our suggestions for standards and give you the ability to contribute to the improvement of percussion notation.

FOOTNOTES

[1]Frank McCarty, Chairman, Composer and Former Percussionist; BLACKEARTH Percussion Ensemble, in residence at the Cincinnati Conservatory of Music; G. Allen O'Connor, head of Percussion, Northern Illinois University in DeKalb; Kurt Stone, Musicologist and Editor, former head of the Index of New Musical Notation of the New York Public Library at Lincoln Center; James Hoffman, Personnel Manager and Principal Percussion, San Diego Symphony Orchestra.

[2]I will use the generic term "beaters" to refer to all implements, sticks, mallets, beaters, scrapers, etc., used by percussionists: a term which I greatly prefer to 'strikers.'

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Caskel, Christoph. (trans. Vernon Martin) "Notation for Percussion Instruments." Vol. VIII, No. 3, March, 1961, pp. 80-84.

Kettle, Rupert. "Composer's Corner - Multi-Percussion Spellings, Vol. VI, Nos. 2 & 3, pp. 52-54, pp. 103-?.

Project on Terminology and Notation of Percussion Instruments, Gordon Peters, Chairman: "Committee Reports." Vol. 2, No. 4, pp. 14-16, Vol. III, No. 2, April, 1966, pp.

47-53. Much, though not all of the content of these reports is included above in the PAS pamphlet. The reasons for the modification or lack of inclusion of these elements are clouded, but the survey did include some that were incorporated above and some that were not.

O'Connor, George A. "Prevailing Trends In Contemporary Percussion Notation." Vol. III, No. 4, September, 1966, pp. 61-74.

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COMPOSITIONS: Too numerous to mention.

*Many other articles could be cited which deal with much of the same material as above, this list is somewhat comprehensive in trying to include all matters relevant to different directions in Percussion Notation but does not have too many duplications.

———————O———————

THE AMADINDA XYLOPHONE: THE INSTRUMENT, ITS MUSIC, AND PROCEDURES FOR ITS CONSTRUCTION

By
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THE AMADINDA XYLOPHONE

The Amadinda xylophone is one of the principal musical instruments employed by the Baganda tribe of southern Uganda in musical concerts and important social gatherings of each village. This instrument has evolved from the larger Akadinda xylophone, which was discovered and developed by the Baganda people under the leadership of Kato Kintu in the sixteenth century.[1] Due to its smaller size, the Amadinda is now the more common of the two, although both are still in use in southern Uganda.

Physical Characteristics of the Amadinda

Amadindas are large instruments, averaging five feet in length by three feet in width. There are twelve bars or keys on the instrument with the largest bar measuring thirty-five inches in length, by four and

one-half inches in width, by two inches in thickness. Subsequently higher pitched bars proportionally decrease in size to the twelfth bar, which measures twenty inches, by three inches, by two inches.[2] Figure 1 shows the top view of an Amadinda and its approximate dimensions.

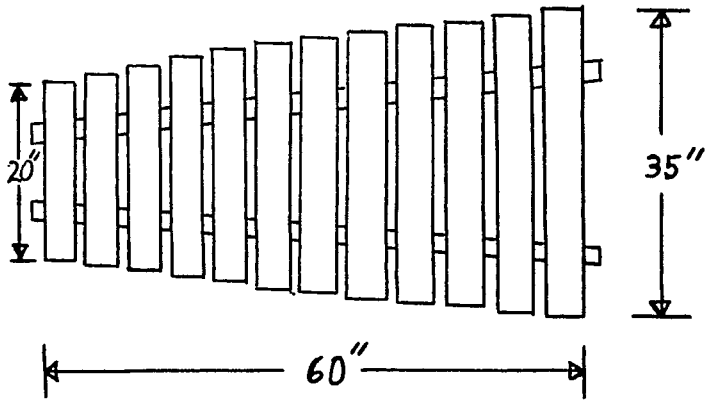


Fig. 1--Top View of an Amadinda

Most Amadinda bars are built from Lusambya wood, a very dense, hard wood that gives the instrument its clear tone. However, in parts of Busoga, an area north of Uganda, wood from the Mukerembo tree is used.[3]

The frame on which the Amadinda bars rest consists of two fresh banana stems. In order to hold the bars in place, a series of small holes is bored in each stem, into which thin sticks, fourteen inches in length, are inserted. A cord is then passed through holes near the ends of each bar and attached to the nearest stick.[4] This system separates the bars from each other but does not keep the bars centered on the frame, so often another person pushes the bars back into playing position during a performance.

Historically, when transporting a xylophone, a musician would gather his bars and carry them to the next village where he would cut two new banana stems and restring the bars to a new frame. In more recent times, permanent wooden frames have been built to simplify instrument moving, even though some musicians feel that the consistency of the soft, fresh banana stems is an essential element in the beautiful sound of the Amadinda.[5]

The Amadinda Scale

The twelve bars of the Amadinda are tuned pentatonically and cover a two and one-half octave range as shown in Figure 2. The pentatonic scale employed in Amadinda tuning is similar to the equi-pentatonic scale containing one and one-fifth whole steps, or two-hundred-forty cents between one pitch and the next.[6]

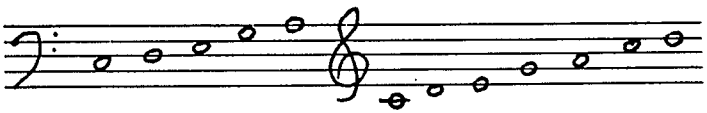


Fig. 2--The Scale of the Amadinda

Table I is a comparison of the equi-pentatonic scale to corresponding pitches of the Western diatonic scale. The primary difference between these scales can be heard in the interval of a third and a sixth above the tonic note: E and A respectively. In the equi-pentatonic scale, these notes are approximately a quarter tone sharp compared to the Western tuning.[7] Gerhard Kubik attributes this tuning to the African desire to keep any interval of a major or minor third out of the Amadinda scale.[8]

TABLE I

COMPARISON OF EQUI-PENTATONIC AND WESTERN DIATONIC TUNING

Pitch	Western Diatonic*	African Equi-Pentatonic*	Difference*
C	0	0	0
D	200	240	40
E	400	480	80
G	700	720	20
A	900	960	60
C	1200	1200	0

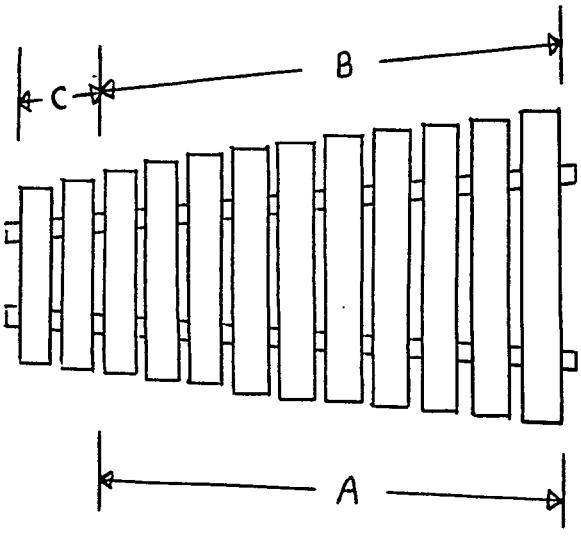
*Numbers in cents.

Due to the irregularities and complexity of the wood used in Amadinda bars, many overtones can be heard above the normal scale notes; this causes the listener to perceive different tones from the actual notes played. The lowest three bars of the Amadinda, for example, are often heard as the notes E, F, and G when played going up, but are perceived as their actual pitches C, D, and E when played downwards.[9] This phenomenon is even more pronounced in the larger Akadinda xylophone as the lowest ten bars are often perceived as pitched differently from their actual tuning.

Amadinda Performance Practices

Amadinda music requires three musicians to play on different areas of the instrument at the same time. The musician who begins a piece and sits with the larger bars on his right is called the Omunazi, while opposite from him, with the larger bars on his left, sits the Omwawuzi.

These musicians play the entire range of the xylophone except for the two highest pitched bars which are played by the Omukonezi, who sits to the right of the Omwawuzi. These playing positions and ranges are illustrated in Figure 3.



A B C

A--Omunazi, B--Omwawuzi, C--Omukonezi

Fig. 3--Ranges of Amadinda Performers

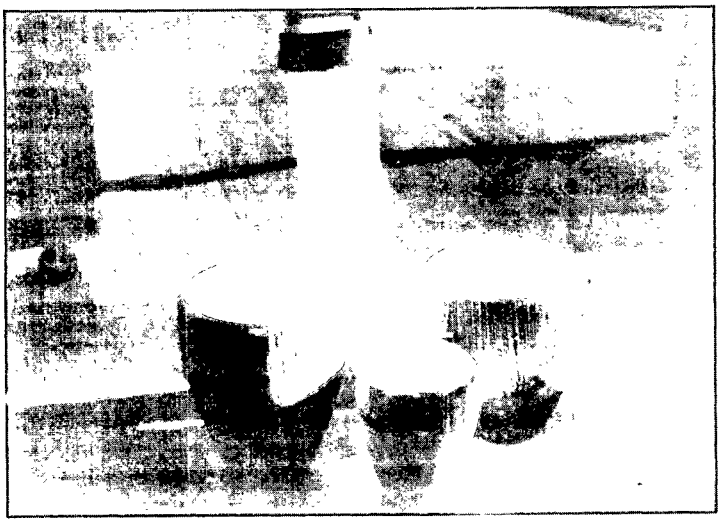
Amadindas are played with wood sticks approximately fourteen inches in length and one inch in diameter. The players strike the xylophone on the ends of each bar at a forty-five degree angle, at no time striking the center of the bar as is the practice with Western xylophones.

There are a number of different styles of Amadinda playing; the most common of these is called Okusengejja, which means to "sort things out, to clarify."[10] Okusengejja comprises a soft and even style of playing with a slightly different emphasis given to each note. Okudaliza style uses strong accents on certain notes and usually occurs during the climax of a performance. An example of Okudaliza can be found in the piece "Atalabanga Mundu Agenda Buleega." To create Okudaliza, the Omwawuzi strongly accents the repeated pitch A, which gives the composite melody a completely new feel and also adds another degree of rhythmic excitement to the performance. The style called Okusita Ebyondo oba Ebisenge is the only method of playing in which notes of an Amadinda piece can be left out. When a musician plays in this style, the performer opposite him usually plays in Okudaliza, which results in a broken, heavily accented rhythmic patter.

These styles are used at different times in the structure of an Amadinda piece. Okusengejja begins a piece; it is followed by the other styles, which are gradually added to the texture. Okudaliza, however, is only used near the end of a performance because of its climatic character.

Instrumental Accompaniment

Although Amadinda music is complete in itself, various other instruments are sometimes used as accompaniment. The most common of these is a set of four drums, called Empunyi, Embutu, Engalabi, and Nankasa.[11] Each of these drums, pictured in Figure 4, are played by an individual performer. The Empunyi is the lowest pitched drum, and is constructed of a hollowed out tree trunk covered with antelope skin. It is struck with the hands and plays the basic pulse. The Embutu drum--similar in construction to the Empunyi--is slightly higher in pitch, and plays a more complex pattern on the basic pulse. The Engalabi is a tall drum covered with lizard skin, and is played by the master drummer who improvises freely over the other parts. The smallest drum of the four, Nankasa, plays a very rapid improvised part as a means to excite the dancers in a performance.



Left to right: Embutu, Engalabi, Nankasa, Empunyi

Fig. 4--Ugandan Drums

Related Ugandan Xylophones

Two structurally similar instruments, which play different styles of music than the Amadinda, are the Akadinda and Embaire xylophones. The Akadinda consists of either seventeen or twenty-two bars which

cover a range of three and a quarter octaves and four and one-third octaves respectively as shown in Figure 5.[12]

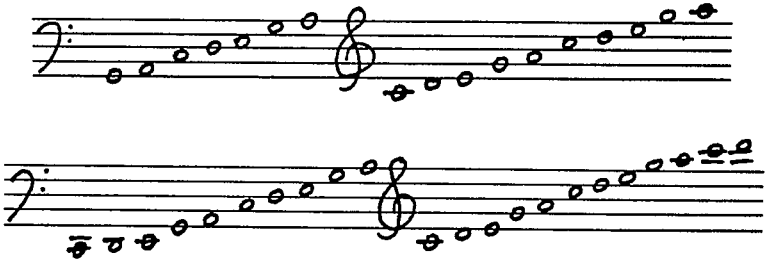
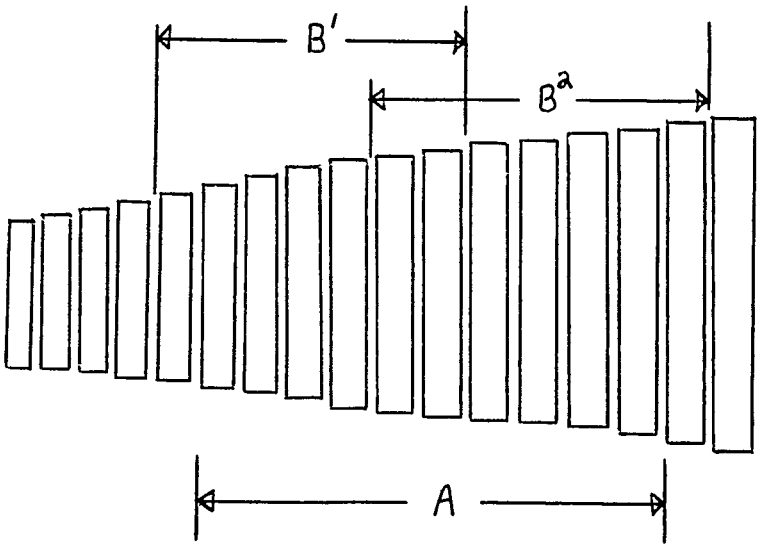


Fig. 5--Scales of the Seventeen- and Twenty-two-Bar Akadinda Xylophones.

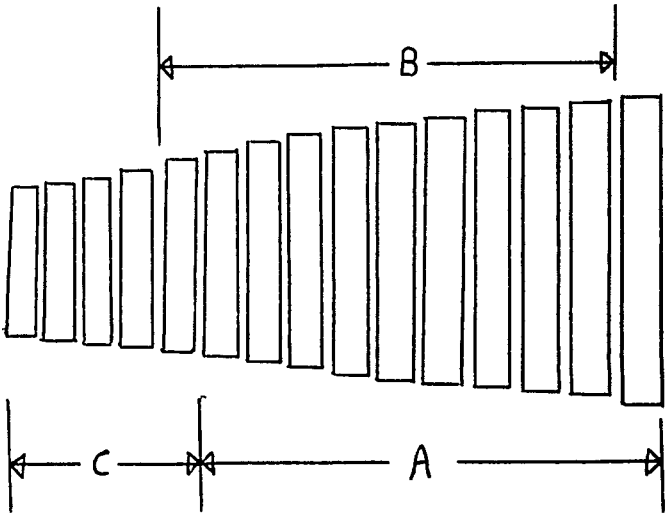
The seventeen-bar Akadinda employs three performers--the Omunazi, who sits with the large bars to his right and plays an independent melody in each hand, and two players called Abawuzi, who sit opposite from the Omunazi and play a counter-melody in octaves.

In contrast, the twenty-two-bar Akadinda requires six musicians who sit three on each side. The music of this instrument consists of two contrasting melodies played on opposite sides and tripled in octaves by the three players.[13] This results in a large ensemble sound which is frequently used in performance with singers, dancers, and other instruments, including Ugandan drums and the Ganda harp. Figure 6 illustrates the seventeen-bar Akadinda and the typical ranges of its performers.



A--Omunazi, B^1 and B^2--Abawuzi

Fig. 6--Ranges of the Seventeen-bar Akadinda Performers



A--Mulangalira, B--Mugoiti, C--Mudumi

Fig. 7--Ranges of Embaire Xylophone Performers

The Embaire xylophone, as illustrated in Figure 7, is closer to the Amadinda in range, size, and musical style. The three Embaire performers are called Mulangalira, Mugoiti, and Mudumi. Their roles correspond to the Amadinda's Omunazi, Omwawuzi, and Omukonezi. The principal difference between the Embaire and Amadinda is found in the Mudumi's range, which covers five notes, in contrast to the range of the Omukonezi, who is restricted to the top two notes of the Amadinda.[14]

These instruments, while containing slight differences in size and range, are all played in a similar interlocking style which makes Ugandan xylophone music unique among the numerous types of African music.

MUSIC OF THE AMADINDA

The music of the Amadinda xylophone is quite old, and for centuries has been handed down from generation to generation. It is difficult to ascertain the exact age of these pieces because of the Ugandan musicians' fondness for renaming ancient works with titles of important current events. A particular piece might be renamed three or four times in the course of 100 years, yet the music would remain exactly the same.

There is no improvisation allowed in Amadinda playing.[15] All melodies are repeated over and over again; the only variations allowed are accents, in Okudaliza style, and, on rare occasions, the breaking up of the melody by excluding certain notes in Okusita Ebyondo style.

Musical Structure

Amadinda music is composed of two main melodies played by the Omunazi and Omwawuzi, and a third resultant pattern played by the Omukonezi. The principal melodies are a series of evenly spaced notes repeated again and again at the very rapid pace of 300 beats per minute.

The Omunazi begins a piece with his melody called Okunaga. Figure 8 is an example of the Okunaga for the piece "Veneneka" (translated Veronica), which consists of a twelve-note repeated pattern played in octaves. Okunagas can range from twelve to thirty-five notes in length, although most commonly found are eighteen and twenty-four note phrases.[16]

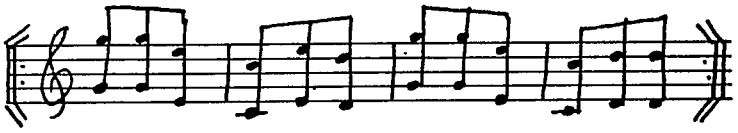
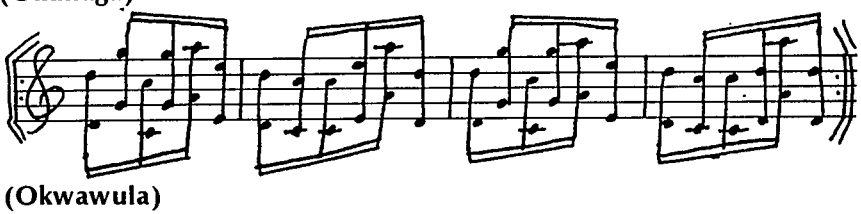


Fig. 8--Okunaga of "Veneneka"

At a prescribed period of time after the Omunazi begins the piece, the Omwawuzi joins in with his part, called Okwawula. This part is also a series of evenly spaced notes and is usually a contrasting melody of the same character and length as the Okunaga. In short pieces, however, the Okwawula may consist of a three-note pattern repeated as many times as necessary to equal the length of the Okunaga.

The combining of these two parts is one of the essential and unique elements of Amadinda music. These melodies are not played simultaneously on the same pulse, but are combined in an interlocking manner as illustrated in Figure 9. Interlocking refers to each player placing his notes in between the pulses of the other musician--when one player's sticks are striking, the other's are at their highest point away from the bars.

(Okunaga)



(Okwawula)

Fig. 9--Interlocking Okunaga and Okwawula of "Veneneka"

Playing in this interlocking manner is an extremely difficult technique to master. The most common occurrence is for the beginning Amadinda player to perceive the Okwawula as a syncopation of the

Okunaga. It is possible to play the Okwawula as a syncopation at a very slow tempo; however, when the actual tempo of an Amadinda piece is approached, it becomes impossible to fit the part evenly inside the Okunaga.

The solution to this problem lies in the ability of the Omwawuzi to switch his perception of the strong beat from the Omunazi's pulse to his own.[17] To be successful, this switch must take place in a split second with no variation in tempo. Both players should then be able to feel their own beat as the strong pulse and the other player's beat as a syncopation.

The last ingredient needed to complete an Amadinda piece is added by the third musician called Omukonezi. The Omukonezi's part is called Okukonera and consists of a combined rhythmic and melodic pattern of all the C's and D's of the Okunaga and Okwawula played as they happen in both parts.[18] Figure 10 is a completed score of "Veneneka" showing the Okukonera and its relationship to the other parts. The Okukonera is an incomplete repetition of the combined melodies played an octave higher; however, since it is restricted to the top two xylophone bars, the resultant pattern creates a unique rhythmic texture of its own, while still emphasizing the combined sound of the two basic parts.

Okukonera

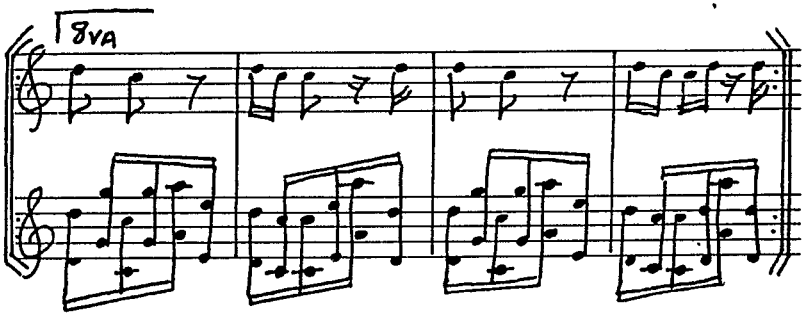


Fig. 10--Complete Score of "Veneneka"

The Okukonera can be extremely difficult to play at the tempo of Amadinda music. Since it is impossible to count the rhythm at this speed, the part must be both felt and heard from the combined Okunaga and Okwawula.

The Okukonera is the accepted standard for judging the quality of an Amadinda piece. If this part is considered rhythmically interesting by itself, then the entire composition is felt to be properly composed.

Inherent Rhythms

In listening to Amadinda music for any length of time, one begins to notice melodies and rhythms that are not played by any one of the

three performers. These melodies and rhythms are called subjective or inherent, and are a desired result of Amadinda music. This phenomenon is partially explained because both principal players are striking the same keys, making it impossible for the listener to tell which notes are played by which musician. The mind tends to join together these separate parts and hears an entirely new set of rhythms from the combinations. Figure 11 is an example of the inherent rhythm between the G and A bars for the piece "Veneneka." This pattern is one of the more easily heard because of its use of peak notes in the melody.

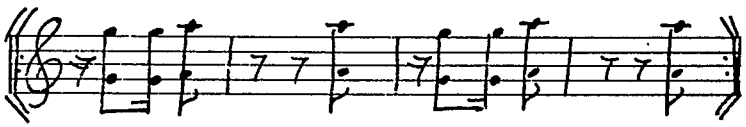


Fig. 11--Inherent rhythm of the G and A xylophone bars in the piece "Veneneka."

Other combinations of bars create inherent rhythms which can be in either the foreground or background depending on certain variables. One variable is the loudness of different bars on a xylophone. If, by chance, the D's and E's of a particular xylophone were slightly louder than the other bars, the inherent rhythm of the D and E bars, as illustrated in Figure 12, would be more noticeable than the others.[19]

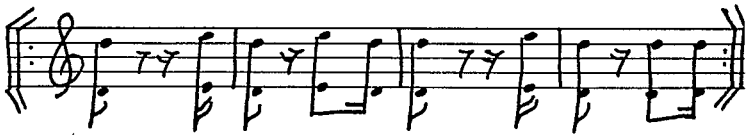


Fig. 12--Inherent Rhythm of D and E Bars in the Piece "Veneneka."

The musicians play the most important role in the creation of inherent rhythms. In Okudaliza style, for example, the accenting of particular notes can shift the inherent rhythms and completely change the sound of a piece, bringing new rhythms to the foreground that had not previously been heard.

The subtle shifting quality of Amadinda music can sustain a listener's attention far longer than one would expect from the mere combination of two simple melodies. This effect can make the same piece sound markedly different depending on the instrument, style of playing, and the observer's own mental combination of these elements.

Miko

The transposition of an Amadinda piece to its five different positions on the xylophone is called Miko (singular Miku), which means "page or leaf."[20] Miko is not a transposition in the Western sense; rather

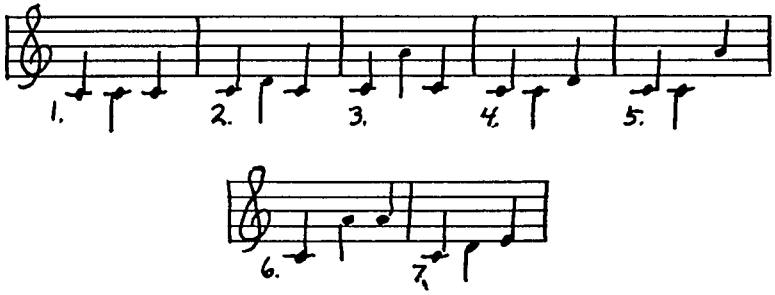
Compositional Principles of Amadinda Music

In examining Amadinda music, it is possible to discover compositional principles used in the creation of the music. These principles are not rhythmic or harmonic--in Ugandan music these parameters do not vary--but involve the intervalic progressions between the Okunaga and Okwawula.

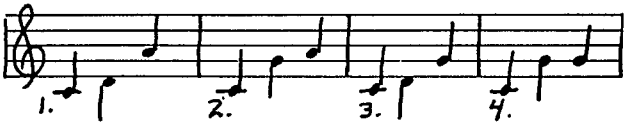
Gerhard Kubik, in his study of African xylophones, statistically analyzed fifty Amadinda compositions and derived certain conclusions regarding consecutive intervals between the players.[21] The purpose of the study was to discover which note was chosen most frequently to fit in between two notes of the other player. Kubik treated the Okunaga as the principal part and the Okwawula as the note that harmonizes or fits between two Okunaga notes.

The completed study, as illustrated in Figure 16, categorized the possible consecutive intervals as either non-occurring, rare, or preferred. These rules also apply to intervals starting on any of the five notes. If three C's in a row are non-occurring, then a combination of three consecutive notes on any bar is not allowed. In this figure, the Okunaga is represented by notes with tails pointing up, while the Okwawula notes are tails down.

From the interval combinations in Figure 16, Kubik formulated a set of rules from which new Amadinda compositions could be constructed. The intervals mentioned in these rules are defined as follows:



I. Non-occurring combinations



II. Rare combinations

it is a positional change of the melody one note up or down the xylophone.

When transposing a melody, the Omunazi and Omwawuzi must still keep within their respective ranges. Since these players cannot play the top two xylophone bars, any transposition into that range must be played an octave lower, as illustrated in Figure 13. In this example, the Okwawula is transposed up one pentatonic scale note, which results in the upper C intruding into the Omukonezi's range (shown with an X). The correct transposition has the first note placed down an octave in the proper playing range.

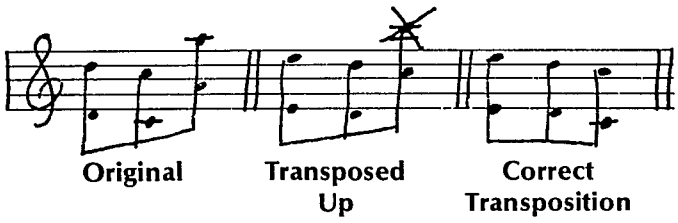


Fig. 13--First Miku transposition of Okwawula in the piece "Veneneka."

The following example, Figure 14, continues the Miko transpositions through their five possible positions.

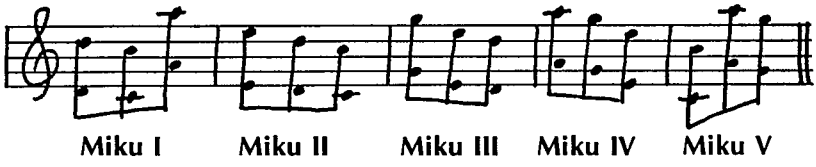


Fig. 14--Miko transpositions of Okwawula in the piece "Veneneka."

A very important element of Amadinda music can be seen in the Okukonera of these different Miko. It becomes evident that each Okukonera has the same rhythm as a corresponding inherent rhythm of the original Miku. This can be easily demonstrated by comparing the inherent rhythm found in Figure 12 with the Okukonera of the fifth Miku illustrated in Figure 15. Although they are played on different Amadinda bars, these rhythms are exactly the same. In playing a composition in the five Miko, all of the inherent rhythms of the first Miku are eventually played as the Okukonera. This creates a cohesiveness typical of Amadinda music.

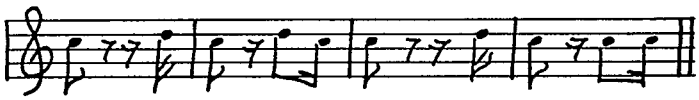
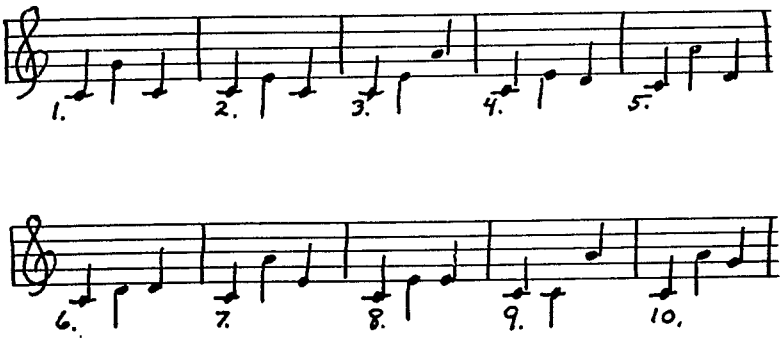


Fig. 15--Okukonera of "Veneneka" in fifth Miku



III. Preferred combinations

Fig. 16--Consecutive Interval Combinations in Amadinda Music.

Prime: the same note
Kiganda-second: progression to the next bar
Kiganda-fourth: jumping one bar
Kiganda-fifth: jumping two bars
Kiganda-seventh: jumping three bars
Octave: jumping four bars

Kubik's consecutive interval rules are these:

1. Between two identical notes in one part, you may not put in the other part:
   (a) the same note (I-1, figure 16)
   (b) either of the two adjacent notes, upwards or downwards (I-2, I-3)
2. If two notes of one part form:
   (a) a descending Kiganda-second (rising Kiganda-seventh), neither of these two notes may be used in the other part (I-5, I-6)
   (b) a rising Kiganda-second (descending Kiganda-seventh), the first of the two notes only is prohibited in the other part (I-4)
   (c) a rising Kiganda-fourth (descending Kiganda-fifth) you may not put the structurally intervening note in the other part, which would give an ascending run of Kiganda-seconds, e.g. 1-2-3 (I-7) or 5-1-2
3. Where the first part forms a Prime (two identical notes):
   (a) the preferred note in the second part is a Kiganda-fourth down (Kiganda-fifth-up), (III-1)
   (b) next in preference is a Kiganda-fourth up (Kiganda-fifth down), (III-2)
4. Where the first part forms:
   (a) a descending Kiganda-second (rising Kiganda-seventh), the

preferred note in the second part is a Kiganda-fourth up, counted from the first note (III-3)

(b) a rising Kiganda-second (descending Kiganda-seventh), three possible notes are equally preferable for the second part: Kiganda-fourth up, second up and second down (III-4, 5, 6)

5. Where the first part forms:
   (a) a rising Kiganda-fourth (descending Kiganda-fifth), equally preferable for the second part are: Kiganda-second down, and fourth up (III-7, 8)
   (b) a descending Kiganda-fourth (rising Kiganda-fifth), the preferred note is the prime (same as the first note), (III-9).[22]

These rules make it clear that the Okunaga and Okwawula are interdependent, but not so much so that one part could be derived entirely from the other. Various choices of notes are available in most circumstances with a number of factors influencing the decision. One of the most important factors is the desire for an open, harmonious overall sound to the music. For this reason, consecutive fourths and fifths are much preferred over scale patterns. Inherent rhythms are also dependent on the prominent use of Kiganda-fourths since the pitch difference between these intervals is great enough to allow two or three melodic levels to be easily distinguished. Tight consecutive scale patterns would completely destroy the separate levels necessary to hear inherent rhythms.

A comparison can be made of Amadinda music and certain surrealistic paintings of the twentieth century. Salvador Dali's works, for example, contain images that seem to change before one's eyes. A bust of Voltaire will appear where two nuns were standing. Rocks become faces and faces become walls. The observer can learn to control the focus of his attention and change these images at will. Amadinda music can be listened to in much the same way; the listener can learn to shift his attention to different levels of the music and discover complex polyphony and constantly changing rhythms one would not think possible from the simple melodic material.

CONSTRUCTING AN AMADINDA XYLOPHONE

The construction of an Amadinda xylophone entails a number of processes which include cutting and finishing the wood, constructing a frame capable of holding the bars securely in place without dampening the resonance, and most importantly, accurate tuning of the fundamental pitches.

Materials

Most of the materials needed in constructing an Amadinda can be

found at good hardware and lumber stores, with the possible exception of wood for the bars.

Philippine-mahogany (marento) was the wood chosen to make the bars of the Amadinda pictured in Figure 17. Since African Lusambya wood was impossible to obtain in the United States, marento was used because of its desired hardness, straightness of grain, and clear tone. Other Amadindas have been built in this country using native woods like oak, maple, and walnut, with each wood giving the respective instrument a slightly different tone.

An exact listing of the materials used in constructing this Amadinda is as follows:

23 board feet of Philippine mahogany

12 feet of 2" by 2" poplar for the frame

10 feet of 1/2" square rope to support the bars

13 4-1/2" by 1/4" bolts with nuts and washers to secure the bars to the frame

4 4" by 1/4" bolts with nuts and washers to fasten the frame

25 feet of 1/4" rope to secure one side of the bars to the frame

Fig. 17--Completed Amadinda Xylophone

Construction Procedures

The first step in the construction of this instrument was rough-cutting the wood to the dimension in Table II.[23] The lumber for the bars was in thirteen foot lengths and, therefore, had to be cut to size at the wood shop.

TABLE II

DIMENSIONS OF AMADINDA BARS

Bar	Length*	Width*	Thickness*
1	35	4-3/4	2
2	33-1/2	4-1/2	2
3	32-1/4	4-1/4	2
4	31-1/4	4	2
5	30	4	2
6	29	4	2
7	27-3/4	3-3/4	2
8	27	3-1/2	2
9	26	3-1/2	2
10	24-3/4	3-1/4	2
11	23-3/4	3-1/4	2
12	22-3/4	3-1/8	2
13	21-3/4	3	2

*Numbers in inches

The bars were then sanded to the desired finish and rounded at the striking ends to seal the wood and prevent splintering.

Frame Construction

The frame is a very important part of the Amadinda because it must support the bars without dampening the tone, keep the bars from sliding in any direction, and make the instrument easier to transport.

To minimize dampening of a bar, it must rest on the frame at the points of least vibration. These areas, pictured in Figure 18, are found .224 or approximately one-fifth of the bars length from each end and are called nodes or nodal points.[24]

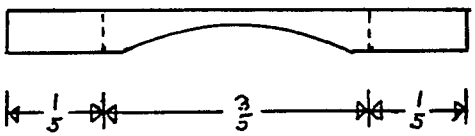


Fig. 18--Nodal points of a bar

The frame itself was built of two inch by two inch poplar, forming a trapezoidal shape contouring the decreasing size of the nodal points.

After the sides were bolted together, a one-half inch square jute rope was nailed to the top of the frame as a means of supporting the bars. This rope was chosen partly for aesthetic reasons, but principally for its durability.

Two methods were employed to fasten the bars to the frame. On one side, as illustrated in Figure 19, holes were drilled through the bars and frame which were loosely bolted together. The bolts kept the bars from moving in any direction and--if not tightened too severely--still allowed them to vibrate freely.

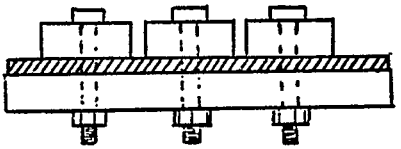


Fig. 19--Detail of Bar Fastening with Bolts

The bars were fastened on the other side of the instrument with one-quarter-inch rope which was wrapped around each bar and passed through holes drilled in the frame, as pictured in Figure 20. The rope kept the bars from moving greatly or touching each other, but dampened the bars much less than bolting would have.

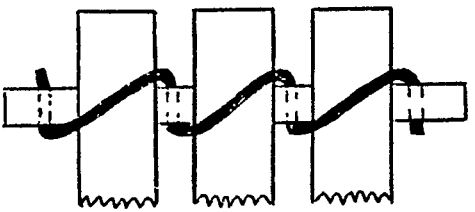


Fig. 20--Top view of Amadinda frame with rope fastening

Tuning the Bars

Probably the most important procedure in constructing an Amadinda is the accurate tuning of the bars. Tuning proved a time consuming process because of the difficulty of correcting small mistakes.

There are two methods of tuning a bar instrument such as the Amadinda. To raise the pitch, the bar is shortened on the ends; to lower the pitch, an arch shaped cut is made in the bottom of the bar between the nodes. Since the bars of this Amadinda were already cut to size, tuning was accomplished by lowering the pitch with arch cuts from the bottom of the bars. Raising the pitch of any bars was avoided because it would have shortened the nodal points and required a corresponding change in position on the frame. Therefore the unaltered pitch of the highest bar was taken as the determining factor for the instrument's tonality. In this case, the highest pitched bar was close to an A natural without tuning, so the other bars were tuned down to form an F pentatonic scale.

The length and depth of the arch cuts depended on the size of the

interval difference between the pitch of the untuned bar and its desired pitch in the F pentatonic scale. Table III compares this interval with the length and depth of the tuning cut. Bar eleven, for example, was tuned down a minor second and required a cut five and one-half inches long by three-eights of an inch deep. In comparison, bar one was lowered a minor seventh with the necessary cut measuring nineteen inches in length by one and one-quarter inches deep. Figure 21 shows the underside of the Amadinda with the different length tuning cuts.

Certain tools were of great help in facilitating the tuning process. A standard Stroboconn was employed to insure accurate tuning. The Stroboconn proved satisfactory on all but the lowest three bars where, due to the complex overtones, a large gong mallet was used to bring the fundamental pitch out of the bars. A band saw was utilized to remove large cuts of wood when the pitch had to be lowered more than one step, while for slight pitch adjustments and fine tuning, a belt sander was adequate.

TABLE III

COMPARISON OF THE SIZE OF INTERVAL DIFFERENCE TO THE LENGTH AND DEPTH OF TUNING CUTS

	Untuned	Tuned	Interval	Tuning Cuts	
Bar	Pitch	Pitch	Difference	Length*	Depth*
1	E flat	FF	Minor 7th	19	1-1/4
2	E	GG	Major 6th	18-1/2	1-1/4
3	F	AA	Minor 6th	16-3/4	1-1/8
4	G	C	Perfect 5th	15-1/4	1
5	A flat	D	Dim. 5th	14-3/4	7/8
6	B flat	F	Perfect 4th	13-3/4	3/4
7	B	G	Major 3rd	12-1/2	5/8
8	c	A	Minor 3rd	10	5/8
9	e flat	c	Minor 3rd	8	1/2
10	e	d	Major 2nd	7	1/2
11	g flat	f	Minor 2nd	5-1/2	3/8
12	g	g	None	--	--
13	a	a	None	--	--

*Numbers in inches.

Building this Amadinda provided the easiest method of studying the music and performance practices of the Baganda tribe. In listening to this music, one can learn to appreciate the polyphonic melodies and rhythms and the harmonious total sound; but only when playing the music as an Omunazi, Omwawuzi, or Omukonezi can one experience the spirit of interdependence and cohesion that Amadinda music generates.

Fig. 21--Underside of Amadinda showing tuning cuts

APPENDIX

The appendix is a compilation of sixty-nine Amadinda pieces arranged in groups of twelve, eighteen, twenty-four, and over twenty-four notes. The pieces are written with numbers representing the five equi-pentatonic notes of the Amadinda with number one as the lowest pitch and five as the highest. It was felt that this method of notation offered the reader the clearest picture of the interlocking style of this music.

The musical structure outlined in Chapter II should be carefully followed when performing these pieces. Special attention should be paid to playing the parts in their correct ranges on the instrument.

AMADINDA COMPOSITIONS

Group I (12 notes)

1. Banno bakoola ng'osiga (Your friends are pruning but you are sowing)
   Okunaga -4-3-4-1-3-3-4-2-3-4-2-1
   Okwawula 5-3-3-5-5-3-5-2-3-5-1-1-
   Okukuonera -------1------22----1211
2. Ndyegulira ekkadde (I will buy myself an old woman)
   Okunaga -2-1-2-2-2-5-2-1-1-2-3-5
   Okwawula 5-4-2-5-4-2-5-4-2-5-4-2-
   Okukonera -2-122-2-22--2-121-2--2-

3. Ekyuma ekya Bora (The swinging machine of Bora)
   Okunaga -4-3-2-3-3-2-4-3-2-3-3-2
   Okwawula 5-5-4-1-5-1-5-5-1-1-5-1-
   Okukonera -----21---12----121---12

4. Abana ba Kalemba (The children of Kalemba--they are smartly dressed)
   Okunaga -4-3-4-4-2-2-4-3-2-4-2-1
   Okwawula 5-2-2-5-2-1-5-2-2-5-1-1-
   Okukonera --2-2---2212--2122--1211

5. Segomba ngoye Mwanga alimpa (I don't pine for clothes, Mwanga will give me)
   Okunaga -5-4-5-5-3-3-5-4-3-5-2-1
   Okwawula 3-3-1-3-2-1-2-3-4-2-2-1-
   Okukonera ----1---2---2-----2-2211

6. Ennyana ekutudde (The calf has broken loose)
   Okunaga -5-5-3-5-2-1-5-5-3-3-1-1
   Okwawula 1-2-4-1-2-4-1-2-4-1-2-4-
   Okukonera 1-2---1-22-11-2---1-21-1

7. Olutalo olwe's Nsinsi (The battle of Nsinsi)
   Okunaga -4-3-4-3-3-3-4-3-4-4-2-2
   Okwawula 5-2-1-5-2-1-5-2-1-5-2-1-
   Okukonera --2-----2-1---2-1---2212

8. Wavvangaya (proper name)
   Okunaga -4-3-4-3-3-2-4-3-4-3-3-1
   Okwawula 5-2-1-5-2-1-5-2-1-5-2-1-
   Okukonera --2-1---2-12--2-1---2-11

9. Omunyoro atunda nandere (The Munyoro sells nandere fish)
   Okunaga -5-4-3-5-4-3-5-4-3-4-4-2
   Okwawula 2-2-1-2-2-1-2-3-1-2-1-1-
   Okukonera 2-2-1-2-2-1-2---1-2-1-12

10. Title unknown
   Okunaga -5-5-5-5-4-3-5-4-2-5-4-3
   Okwawula 3-2-1-3-2-1-3-2-1-3-2-1-
   Okukonera --2-1---2-1---2-12--2-1-

11. Ozze Bulungi (Welcome)
   Okunaga -3-4-4-3-4-5-3-5-4-3-4-1
   Okwawula 1-1-4-1-2-1-5-1-2-1-2-1-
   Okukonera 1-1---1-2-1---1-2-1-2-1-

12. Namwama (The chief of the yamfruit clan)
   Okunaga -4-3-4-3-3-4-4-3-4-3-3-2
   Okwawula 5-1-5-2-1-5-2-1-5-2-1-5-
   Okukonera --1---2-1---2-1---2-1-22

13. Bw-oba Olimba (If you're lying)
   Okunaga -1-2-1-1-3-3-1-2-3-1-4-5
   Okwawula 4-4-5-3-3-5-3-4-5-4-3-1-
   Okukonera -1-2-1-1-----1-2---1--1-

14. Kamegga Enjovu (A little elephant feller)
   Okunaga -1-4-5-1-4-4-2-2-5-5-3-3
   Okwawula 4-5-2-4-4-2-2-5-5-4-3-4-
   Okukonera -1--2--1--2-22-2--------

15. Kyassanga Alwma (Foot sores hurt)
   Okunaga -4-4-2-3-3-2-3-5-5-4-5-2
   Okwawula 4-4-1-5-3-1-5-4-5-3-2-1-
   Okukonera ----12----12--------2-12

16. Kyaliwajjala (proper name)

Okunaga	-4-3-4-2-1-4-3-2-4-1-1-1
Okwawula	4-1-4-2-3-5-1-5-4-1-4-4-
Okukonera	--1---22-1--1--2--11-1-1

Group II (18 notes)

17. Ssematimba ne Kikwabanga (Ssematimba and Kikwabanga)

Okunaga	-4-5-2-3-3-6-2-1-2-5-2-2-1-4-4-2-1-1
Okwawula	5-4-3-2-4-4-4-1-1-4-3-1-2-3-4-3-2-2-
Okukonera	-----22------21112---21221-----22121

18. Naagenda kasana nga bulaba (We will leave when it is daylight)

Okunaga	-2-1-2-5-2-2-2-5-5-2-1-2-5-2-1-2-4-4
Okwawula	2-3-4-3-2-2-4-5-5-2-3-4-3-2-3-4-5-4-
Okukonera	22-1-2--2222-2----22-1-2--22-1-2----

19. Omusango gw'abalere (The case of the flute players)

Okunaga	-2-1-2-5-2-2-1-5-5-2-1-2-3-4-5-1-4-4
Okwawula	5-4-3-2-5-4-3-1-5-2-4-3-2-4-4-3-2-2-
Okukonera	-2-1-22--2-2-11---22-1-22------12-2-

20. Omuwa butwa wakyejo (The poison-giver is daring)

Okunaga	-3-4-4-2-4-4-3-4-1-3-4-3-1-3-2-4-2-2
Okwawula	5-3-4-5-2-3-3-5-2-2-4-1-5-2-4-4-1-1-
Okukonera	-------22-------212---1--12--2--1212

21. Musenze alanda (The settler spreads himself out)

Okunaga	-4-3-2-4-3-2-4-3-2-4-3-2-4-3-2-4-3-2
Okwawula	5-5-5-1-5-1-1-4-4-1-5-2-3-5-1-1-4-4-
Okukonera	-----21---121----21---22----121----2

22. Alifuledi (proper name)

Okunaga	-4-3-4-3-5-5-5-3-4-2-2-2-4-3-4-4-3-1
Okwawula	3-3-1-5-2-4-4-2-1-5-1-1-5-2-1-5-2-1-
Okukonera	----1---2-----2-1--21212--2-1---2-11

23. Omutamanya n'gamba (The ignorant one)

Okunaga	-4-5-5-2-3-3-5-2-1-4-5-1-3-4-4-1-3-2
Okwawula	5-3-4-3-1-3-3-4-5-1-4-5-4-2-4-4-5-1-
Okukonera	-------21------2-11----1--2----1--12

24. Katulye ku bye pesa (Let's spend of our money, i.e. eat well)

Okunaga	-4-3-4-3-3-2-4-3-5-5-3-4-3-3-2-4-3-1
Okwawula	1-1-5-2-1-5-1-5-5-2-5-5-2-1-5-1-5-5-
Okukonera	1-1---2-1--21-----2-----2-1--21----1

25. Ganga alula (Ganga had a narrow escape)

Okunaga	-5-3-5-4-3-2-3-2-1-4-3-2-4-2-2-4-2-2
Okwawula	5-5-2-1-5-1-3-5-1-1-5-1-3-5-2-2-5-1-
Okukonera	----2-1---12---2111---12---2222--212

26. Balagana enkonge (Those who warn each other of danger today)

Okunaga	-3-4-4-2-3-4-3-1-2-1-3-3-1-2-1-4-1-1
Okwawula	4-5-4-2-3-5-2-1-2-5-4-3-1-2-5-4-1-1-
Okukonera	------22----2-1122-1----1122-1--1111

27. Byasi byabuna olugudo (Bullets all over the road)

Okunaga	-4-3-2-4-3-2-3-2-2-4-3-2-3-3-1-2-3-1
Okwawula	5-5-1-4-4-1-5-5-1-5-4-1-3-3-1-5-1-1-
Okukonera	----12----12---212----12----11-21-11

28. Abe Busoga beggala ngabo (The people of Busoga use shields for doors)

Okunaga	-4-4-5-2-4-4-5-2-2-4-4-5-1-2-3-5-1-1
Okwawula	3-4-4-1-3-4-4-2-1-3-2-4-1-2-1-4-1-1-
Okukonera	------12------2212--2---11221---1111

29. Nanjobe (proper name)

Okunaga	-5-5-4-5-1-1-3-5-4-1-1-1-3-5-4-3-2-2
Okwawula	5-3-4-5-3-2-1-3-4-5-3-2-1-2-5-1-3-2-
Okukonera	---------1211------1-1211-2---1--222

30. Mugoowa lwatakise (When Mugoowa has not reported to court)

Okunaga	-5-5-5-3-3-2-3-3-1-3-3-2-1-5-4-5-1-2
Okwawula	5-4-3-3-5-1-5-4-1-3-3-1-5-4-3-2-1-3-
Okukonera	----------12----11----12-1----2-11-2

31. Gulemye Mpangala (name of a chief)

Okunaga	-5-5-3-2-4-5-1-2-3-3-1-1-3-2-3-5-1-2
Okwawula	5-4-5-4-4-1-3-5-4-3-4-5-2-2-2-4-4-1-
Okukonera	-------2--1--1-2-----1-12-222----112

32. Mawanda segwanga (Mawanda the great)

Okunaga	-4-3-4-4-3-4-3-3-4-5-3-4-4-1-4-2-2-1
Okwawula	5-5-2-5-5-2-5-5-2-5-5-2-5-5-1-5-5-2
Okukonera	----2-----2-----2-----2----11--2-221

33. Ebigambo ebibulire bitta enyumba (Reported words ruin families)

Okunaga	-4-3-5-5-3-4-4-2-2-4-2-1-4-3-3-4-3-1
Okwawula	5-2-1-5-1-1-5-2-1-5-2-1-5-2-1-5-2-1-
Okukonera	--2-1---1-1---2212--2211--2-1---2-11

34. Walugembe eyava e Kkunywa (Walubembe who came from Khunywa)

Okunaga	-5-5-1-3-5-5-1-3-3-5-5-1-2-3-4-1-2-2
Okwawula	4-5-5-2-4-5-5-3-2-4-3-5-2-3-2-5-2-2-
Okukonera	-----12------1--2------122--2--12222

35. Omujooni: Balinserekerera balinsala ekyambe (Poor as I am, they will brutally murder me)

Okunaga	-5-5-4-4-2-3-4-1-1-4-4-4-4-2-3-4-1-2
Okwawula	2-2-2-1-3-5-2-1-3-5-2-2-1-3-5-2-1-4-
Okukonera	2-2-2-1--2--2-11-1--2-2-1--2--2-11-2

36. Lutaaya yesse yekka (Lutaaya has killed himself)

Okunaga	-2-3-4-3-3-4-2-1-1-2-3-4-2-2-4-2-1-1
Okwawula	5-4-3-5-2-1-5-2-1-5-4-3-5-2-1-5-2-2-
Okukonera	-2------2-1--22111-2-----2221--22121

37. Kawumpuli (The plague)

Okunaga	-1-2-3-2-2-3-2-1-4-1-2-3-1-1-4-1-1-4
Okwawula	4-5-2-4-1-5-4-1-5-4-5-2-4-1-5-4-1-1-
Okukonera	-1-22--212---211---1-22--111---1111-

38. Abalung'ana be baleta engoye (It was the Arabs who brought cloth)

Okunaga	-4-4-2-3-2-2-4-5-2-3-3-3-2-3-1-1-3-2
Okwawula	5-4-1-5-4-1-5-4-1-5-4-1-5-4-1-5-4-1-
Okukonera	----12---212----12----1--2--11-1--12

39. Ensejjere Kawomera (The delicious white ant)

Okunaga	-3-2-4-4-2-3-3-1-1-3-2-3-3-2-2-3-2-5
Okwawula	1-5-4-1-5-4-1-5-4-1-5-4-1-5-4-5-5-4-
Okukonera	1--2--1--2--1--1-11--2--1--2-2---2--

40. Tweyanze Mugwanya (We thank you, chief Mugwanya)

Okunaga	-3-2-3-3-3-1-3-2-3-2-2-1-3-2-5-3-2-1

Okwawula 1-5-4-1-5-4-1-5-4-1-5-4-1-5-4-5-5-4-
Okukonera 1--2--1----11--2--12-2-11--2-----2-1

41. Omubazzi W'Amato (The boat maker)
Okunaga -3-3-3-4-3-4-5-3-3-1-5-1-1-4-3-5-1-1
Okwawula 1-1-5-2-1-5-3-2-1-2-2-2-4-4-1-2-1-4-
Okukonera 1-1---2-1-----2-1-2-12-21-1--1-2-11-1

42. Ntebatteba Ennyanja (I'm hastening to the lake)
Okunaga -2-1-2-5-1-2-1-4-5-2-3-4-2-1-1-5-4-4
Okwawula 5-4-5-1-2-5-1-2-1-5-4-2-3-4-4-1-2-2-
Okukonera -2-1-21-21-2112-1--2--2--2-1-11-2-2-

43. Kikatagga
Okunaga -1-4-3-4-4-1-4-3-3-4-5-3-5-5-1-4-2-2
Okwawula 5-2-5-5-2-5-5-2-5-5-2-5-5-2-5-5-1-5-
Okukonera -12-----2--1--2-----2-----2--1--12-2

44. Wakkoli
Okunaga -1-1-2-3-4-3-2-2-4-1-1-2-3-4-2-4-4-4
Okwawula 1-4-5-4-2-1-2-5-2-1-4-5-4-2-4-4-2-2-
Okukonera 11-1-2--2-1-22-22-11-1-2--2--2--2-2-

45. Gulemye Suddume
Okunaga -5-1-1-4-4-1-5-1-2-4-5-3-3-1-5-2-3-4
Okwawula 2-2-4-3-2-3-2-2-4-1-3-2-1-2-3-5-5-5-
Okukonera 2-21-1--2--12-21-21---2-1-21---2----

Group III (24 notes)

46. Atalabanga mungu agende Buleega (One who has never seen a gun should go to Buleega)
Ok. -4-3-4-1-3-2-1-3-3-1-2-1-4-3-4-1-3-2-1-2-2-1-2-1
Okw. 5-3-4-5-4-3-5-3-3-5-1-1-5-3-4-5-4-2-5-4-3-5-1-1-
Okuk. -------1---2-1-----11211-------1--22-1-2-2-11211

47. Ezali embikke kasagazi kawunga (The plantations which were well cared for are now waste)
Ok. -1-3-5-1-1-3-5-1-1-3-4-4-1-3-5-1-5-3-5-5-1-3-4-4
Okw. 2-4-5-1-2-4-5-1-2-4-5-5-2-4-5-1-2-4-1-5-2-4-5-5-
Okuk. 21----1121----1121------21----112---1---21------

48. Kalagala e Bembe (Kalagala of Bembe)
Ok. -5-4-1-3-2-1-5-4-1-2-2-2-5-4-1-3-2-1-5-4-1-4-1-1
Okw. 4-3-2-3-4-5-4-3-2-3-2-5-5-2-2-3-4-5-4-3-2-3-1-1-
Okuk. ----21---2-1----21-222-2--2-21---2-1----21--1111

49. Semakokiro ne Jjunju (Semakokiro and Jjunju)
Ok. -3-5-5-2-4-3-1-5-4-3-1-1-4-3-4-4-4-2-5-2-2-5-1-2
Okw. 2-2-1-2-2-5-2-2-5-1-5-3-5-5-1-2-3-2-1-5-4-1-1-4-
Okuk. 2-2-1-222---212------1-1----1-2---221--2-21-11-2

50. Agawuluguma ennyanja (What rumbles in the lake)
Ok. -5-4-3-2-4-4-3-2-5-4-1-1-4-3-2-1-3-3-3-2-5-4-2-2
Okw. 1-2-1-5-2-2-1-5-4-2-1-5-1-2-1-4-1-1-5-4-3-1-1-5-
Okuk. 1-2-1--22-2-1--2--2-11-11-2-12-11-1----2--1-12-2

51. Akaalo Kikamu (In the same village live the ruthless ones)
Ok. -5-4-4-2-4-3-4-5-4-1-1-4-3-3-1-5-4-2-3-2-5-2-2-1
Okw. 4-4-5-2-1-3-3-2-3-4-1-2-2-5-1-3-2-4-4-1-5-3-2-1-
Okuk. ------221-----2----1112-2---11--2--2--12---22211

52. Afa talamusa (The dead do not give greeting)

Ok. -5-5-1-3-5-5-1-3-2-5-1-3-4-5-1-3-4-4-1-3-2-5-1-3
Okw. 2-4-5-5-2-4-5-5-2-2-5-5-2-4-5-4-2-4-4-5-2-2-5-5-
Okuk. 2----1--2----1--222--1--2----1--2----1--222--1--

53. Okuzanyira ku nyanja kutunda mwoyo (To play by the lake is to sell one's spirit)

Ok. -4-3-4-2-4-4-2-3-5-1-1-1-4-3-5-1-2-1-4-3-5-5-2-1
Okw. 4-4-2-1-4-4-5-1-3-2-5-4-5-1-3-2-2-4-5-1-1-4-4-2-
Okuk. ----2-12-----21---21-1-1--1---2122-1--1-1----221

54. Ngabo Maanya eqiriwangula Mugerere (The shields of Kamanya will conquer Mugerere)

Ok. -5-4-3-1-1-4-3-4-4-4-2-5-2-2-5-1-2-4-5-5-2-4-3-1
Okw. 3-4-3-4-3-1-3-3-4-4-1-1-2-3-4-5-4-2-3-4-2-5-2-2-
Okuk. -----2-1--12-------211112------2-122----22-12222

55. Ensiriba ya munange Katego (The charm of my friend Katego)

Ok. -5-4-2-1-5-2-3-3-5-2-1-1-4-5-4-2-1-2-4-4-2-1-2-2
Okw. 3-4-3-4-3-1-3-3-4-4-1-1-2-3-4-5-4-2-3-4-2-5-2-2-
Okuk. -----2----12------211112------2-122----22-12222

56. Atakulubere (He who will not assist you)

Ok. -5-4-5-1-2-3-4-3-3-3-2-2-5-4-5-1-2-3-4-4-2-5-2-2
Okw. 5-4-2-2-1-2-3-5-2-2-1-2-5-4-2-2-1-1-3-4-2-2-1-1-
Okuk. ----2-21122-----2-2-1222----2-21121-----222-1212

57. Nkejje namuwanula (The largest nkejje fish on the rack)

Ok. -5-4-5-4-3-1-4-4-2-4-4-1-5-1-4-1-1-5-1-2-1-3-3-1
Okw. 3-2-2-2-1-2-3-2-4-4-1-2-3-3-1-1-4-3-4-5-4-3-1-2-
Okuk. --2-2-2-1-21--2--2--1-21---11-11-1---1-2-1--1-21

58. Kansimbe omuggo awali Kibuka (Let me plant my stick where Kibuka is)

Ok. -3-5-2-4-3-5-2-2-3-5-1-1-3-5-2-4-3-4-2-4-3-5-1-1
Okw. 1-1-4-4-1-2-1-4-1-1-4-5-1-2-2-5-1-2-1-4-1-1-4-5-
Okuk. 1-1--2--1-2-12-21-1--1-11-2-22--1-2-12--1-1--1-1

59. Omukazi omunafu agayigga na ngabo (The idle woman has to walk through her garden with a shield)

Ok. -1-3-3-4-1-2-3-4-1-2-2-4-1-2-2-4-1-2-3-4-1-3-3-4
Okw. 3-5-1-1-3-5-2-3-3-5-2-3-3-5-1-1-3-5-2-3-2-5-2-2-
Okuk. -1--1-1--1-22----1-222---1-2121--1-22---21--2-2-

60. Nandikuwadde (I'd give you)

Ok. -4-1-5-2-2-2-4-2-4-4-3-2-4-1-5-3-3-2-4-5-5-5-3-2
Okw. 1-2-3-2-1-5-2-4-4-2-1-5-1-2-3-2-1-5-1-5-3-2-5-5-
Okuk. 1-21--2212-22--2--2-1--21-21--2-1--21-----2----2

61. Namirembe

Ok. -3-5-4-1-3-2-1-1-3-1-4-3-2-5-4-1-3-2-5-2-2-4-5-5
Okw. 5-5-2-3-4-5-3-3-3-1-1-1-5-1-2-3-4-1-2-2-5-1-5-3-
Okuk. ----2--1---2-1-1--111-1--21-2--1--211-22-21-----

62. Aluwa Aluwa (Where oh, where is he)

Ok. -1-5-4-5-1-3-3-3-1-5-1-4-1-5-4-5-1-4-4-4-1-5-2-4
Okw. 3-2-3-2-1-3-3-1-3-2-1-1-3-2-3-2-1-4-4-1-3-2-2-2-
Okuk. -12---2-11----1--12-111--12---2-11----1--12-222-

63. Ow Ekiwalata (The Baldman)

Ok. -1-3-5-1-1-3-5-5-3-2-5-2-2-3-4-2-4-3-5-5-3-2-5-1
Okw. 4-1-1-2-4-1-1-2-4-1-2-2-4-1-5-4-4-4-1-2-4-1-2-1-
Okuk. -11-1-21-11-1-2---122-22-21----2----1-2---122-11

64. Okwagala Omulungi Kwesengereza (Loving a beautiful woman means entreaties)

Ok. -4-4-2-1-1-4-1-5-1-2-1-1-3-3-1-5-5-2-3-1-4-5-4-2
Okw. 5-2-3-5-4-1-1-3-2-5-4-3-1-1-2-4-3-5-5-4-5-1-3-5-
Okuk. --2--2-1-11-11--21-2-1-11-1-21-----2---1--1----2

65. Tusimbe Omuggo Awali Kibuka

Ok. -1-3-5-2-4-3-4-2-4-3-5-1-1-3-5-2-4-3-5-2-2-3-5-1
Okw. 4-1-1-4-5-1-1-4-4-1-2-1-4-1-1-4-5-1-2-2-4-1-2-1-
Okuk. -11-1--2--1-1--2--1-2-11-11-1--2--1-2-22-21-2-11

Group IV (over 24 notes)

66. Bakebezi bali e Kitende (The sly ones are at Kitende) 25 notes

Ok. -3-4-4-1-3-2-3-4-5-2-3-3-1-1-4-5-2-4-4-1-3-2-2-5-1
Okw. 5-5-2-3-4-5-4-1-3-4-3-1-5-4-1-1-4-4-2-3-4-5-5-2-2-
Okuk. ----2--1---2--1----2--1--1-11-1--2--2--1---2-22-21

67. Abe Bukerere balaagire emwanyi (the People of Bukerere live on coffee) 27 notes

Ok. -5-5-5-3-5-5-4-5-1-3-3-4-5-1-4-4-5-1
Okw. 3-3-5-5-3-2-1-4-3-5-2-1-4-4-2-1-4-3-
Okuk. ----------2-1----1--2-1----12-1----1

Ok. -3-3-4-5-1-2-5-2-2
Okw. 5-2-1-2-5-2-2-5-5-
Okuk. --2-1-2--1222--2-2

68. Akawologoma (The small lion) 27 notes

Ok. -5-3-3-5-4-5-3-2-3-1-4-1-1-4-3-2-3-1
Okw. 1-2-3-4-4-4-1-2-3-4-5-4-5-5-5-2-3-4-
Okuk. 1-2---------1-22---1---1-1----22---1

Ok. -4-2-2-4-3-4-2-1-2
Okw. 4-1-1-5-1-1-4-1-1-
Okuk. --1212--1-1--21112

69. Agenda n'omulungi azaawa (He who goes with the beautiful one loses himself) 35 notes

Ok. -3-2-3-3-1-5-2-2-3-2-5-4-1-5-1-1-1-3
Okw. 1-2-3-3-2-3-3-3-5-3-1-3-3-2-5-4-5-1-
Okuk. 1-22----21---2-2---21----12--1-1-11-

Ok. -3-1-1-4-3-2-5-4-3-2-5-4-1-5-3-1-1
Okw. 2-3-3-1-4-4-1-5-1-4-1-1-5-1-2-1-5-
Okuk. 2--1-11----21---1--21-1--11-2-11-1

FOOTNOTES

[1]Joseph Kyagambiddwa, *African Music from the Source of the Nile* (New York, 1955), p. 13.

[2]These measurements were taken from an Amadinda built in Uganda, and currently used by the Paul Winter Consort.

[3]Gerhard Kubik, "Xylophone Playing in Southern Uganda," *The Journal of the Royal Anthropological Institute of Great Britain and Ireland*, XCIV (1964), p. 138.

[4]Gerhard Kubik, "The Structure of Kiganda Xylophone Music," *African Music Society*, II (1960), p. 7.

[5]*Ibid.*, p. 7.

[6]A. M. Jones, *Africa and Indonesia The Evidence of the Xylophone and other Musical and Cultural Factors* (Leiden, 1971), p. 235.

[7]Kubik, "The Structure of Kiganda Xylophone Music," p. 7.

[8]*Ibid.*, p. 8.

[9]*Ibid.*, p. 9.

[10]Kubik, "Xylophone Playing in Southern Uganda," p. 139.

[11]Jones, *Africa and Indonesia*, p. 138.

[12]Kubik, "The Structure of Kiganda Xylophone Music," p. 9.

[13]Kyagambiddwa, *African Music*, p. 117.

[14]Kubik, "Xylophone Playing in Southern Uganda," p. 144.

[15]Gerhard Kubik, "The Structure of Kiganda Xylophone Music," *African Music Society*, II (1960), 10.

[16]*Ibid.*, p. 12.

[17]*Ibid.*

[18]Joseph Kyagambiddwa, *African Music from the Source of the Nile* (New York, 1955), p. 117.

[19]Kubik, "The Structure of Kiganda Xylophone Music," p. 13.

[20]Gerhard Kubik, "Compositional Techniques in Kiganda Xylophone Music," *African Music Society*, IV (1969), 28.

[21]*Ibid*, p. 32.

[22]*Ibid.*, p. 33.

[23]These dimensions are from an Amadinda built in Uganda and currently used by the Paul Winter Consort.

[24]Charles Culver, *Musical Acoustics* (Philadelphia, 1949), p. 167.

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FELDMAN — THE KING OF DENMARK

Analysis by Cynthia Soames
PAS Historian

Morton Feldman was born in New York City in 1926. A composer concerned with the nature of sound itself, Feldman presents sonorities in an absolute manner, without the complexities of a process or "message".

Instead of organizing sounds in relationship to one another, Feldman creates sound with intentionally unrelated and disassociated elements. He may indicate general areas of attack, pitch, or register within a soft, thin arrangement of sound events and leave the exact choice of these areas to the performer. The sound events are arranged so that they are carefully isolated and disassociated from one another.

Published in 1965, *The King of Denmark* was written by Morton Feldman in August, 1964. It is scored for solo percussionist. The instruments traditionally used for a performance of this composition include vibraphone (played without motor), timpani, gongs, triangles, small tunable drums, suspended cymbals, tuned cowbells, sleigh bells, orchestra bells, suspended hand bells, etc.

The King of Denmark is notated in symbols graphed very high, high, medium, low, and very low to represent the sound register desired. Each box of the graph equals the metronome marking of sixty-six to ninety-two (Fig. 1). All instruments are to be played without sticks or mallets, allowing the performer to use fingers, hands, or any part of his arms. The dynamics are to be played as equal as possible and extremely soft. Numbers represent the amount of sounds to be included in each beat or unit of time. A thick horizontal line designates sound clusters to be played with varied instruments. Roman numerals are used to represent simultaneous sounds. Broken lines represent sustained sounds. Feldman uses the following symbols: B, bell-like sounds; S, skin instruments; C, cymbal; G, gong; R, roll; TR, timpani roll; Δ, triangle; and GR, gong roll.

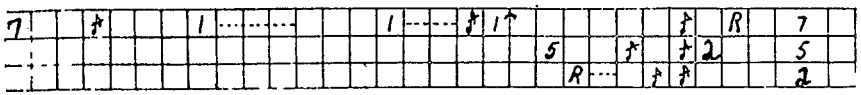


Fig. 1--Feldman, *The King of Denmark,* Introduction and part of the A section, illustrating notation.

The composition begins with an introduction of twenty beats or units of time. High sounds are specified during the introduction. Seven sounds occur during the first time unit and are followed by two beats rest. A grace note occurs in the fourth unit, followed by a sustained tone of four beats, three time units later. The A section begins at beat twenty-one and continues for fifty-six units of time. Various combinations of numbers, rolls, sustained notes, and simultaneous sounds

thicken the texture and prepare for the final eleven time units of the section, in which all sounds are played on gongs. The A section is divided into two parts of twenty-three and twenty-eight units of five silent time units. Feldman notates high, medium, and low sounds in this section. The next section, A^1, begins with beat seventy-seven and continues for 135 beats. Very high, high, medium, low, and very low sounds are employed in this section. The triangle, timpani roll, and sound clusters appear in this section for the first time. This section is divided into two parts of eighty and forty-four beats by eleven units of silence. The section ends with seven beats of sounds to be played on skin instruments. The texture preceding the seven beats of skin sounds is not thickened as was the texture preceding the gong sounds of the A section. Another section, A^2, is introduced with time unit 212 and continues for thirty-seven beats. Feldman specifies skin, cymbal, bell, gong, and triangle sounds to be played during the section preceding the seven time units of cymbal sounds which end the section. A fourth section, A^3, begins in time unit 249 and continues forty-six beats. Twenty-three beats of varied sounds, excluding very low sounds, prepare for twenty-three beats of bell-like sounds that end the section. The section featuring bell-like sounds is interrupted twice by eight and five beats of silence.

A new section, the B section, begins with time unit 295. A high triangle sound followed by six beats of silence and a medium triangle sound followed by five beats of silence occur. The B section continues for fifty-five beats. The first twenty-seven time units feature varied very high, high, medium, and low sounds. Two sound events follow, one including ten beats of varied sound clusters and the other including ten beats of bell, cymbal, timpani, gong, and triangle sounds. The last note of the B section is preceded by five beats of silence. The B section included in the A sections. Ten time units of silence follow the B section and precede a coda of approximately forty-two beats. The coda includes as many different sounds as possible. Feldman notates twenty-three units of time before requesting literally "as many different sounds as possible". A vibraphone chord appears with beat 391 and sounds for seven beats. The final notation is time unit 398, a G# to be played on glockenspiel or antique cymbal.

The form of *The King of Denmark* is Introduction, A A^1, A^2, A^3, B, Coda.

A thorough knowledge of the composition is essential to presenting it in performance as a continuous, organized, and interesting work. The most technically interesting section occurs from time unit 231 to 239. The performer must sustain a continuous roll on timpani for six beats and on gong for three beats while playing other triangle and gong sounds. The performer should employ a wide range of sounds to create interesting textures and timbre. A percussionist performing this type of composition for the first time should use traditional instrumentation.

"EVEN A BASS DRUMMER SHOULD BE A MUSICIAN"

By David W. Vincent

About the Author:

Dr. Vincent teaches percussion and theory at East Tennessee State University, Johnson City. He has compiled lists of Commercially Available Excerpts for Timpani and Percussion previously published in the ***Percussionist*** *and has numerous arrangements and transcriptions for mallet ensembles among his works.*

Every day, in studios and practice rooms all across America, people spend countless hours attempting to learn the latest "lick" on vibraphone, snare drum, or triangle. Trying to play faster and more accurately than the person in the next cubicle is great -- to a point. Unfortunately, though, many people go no further than pure technique in their playing; much more important in changing a mediocre performer into a great one is a concept too often overlooked: Musicianship.

Although musicianship includes such factors as phrasing and interpretation ("Should I let the cymbals ring here?"), it can be best summed up by the word "sensitivity." The best musicians are sensitive to what is going on around them and adjust their playing to match the other sounds. The only way to do this is by opening one's ears and *really* listening to the group, paying attention to dynamics, phrasing, articulation and pitch and then matching the quality of one's sound to that of the ensemble.

Another very important aspect of listening is paying attention to the conductor at all times during rehearsals. Even though the director may not be speaking to the percussion section about their specific parts, they should listen carefully because often they have similar problems to those being discussed.

This applies most especially to those percussion instruments with pitch, kettledrums and keyboards, but players should not forget about musicianship when playing on non-pitched instruments. Snare drum and triangle can (and should) be played musically, because simply playing the rhythm of a drum part adds little or nothing to the ensemble. A snare drummer must phrase with the rest of the ensemble, playing the same inflections as a person playing a similar figure.

For example, a conductor may request one of the following phrasings for this rhythmic figure:

A percussionist playing the same figure must match the requested manner of phrasing in order to create a unified performance. Even if one

does not have that figure to perform at the moment, one should listen and learn one musician's method of phrasing the motive in order to apply the knowledge in the future to a similar passage.

The percussion instrument usually considered the "lowliest", and consequently the most maligned musically, is the bass drum. Denying the musical possibilities of the bass drum denies its possible greatness. A bass drum can be one of the most fun percussion instruments to play and is certainly one of the most important. Consequently, a bass drummer should play no less musically that any other instrumentalist. (Anyone who feels that a bass drum is an "unworthy" instrument should realize that the principal percussionist of the Chicago Symphony is the bass drummer!)

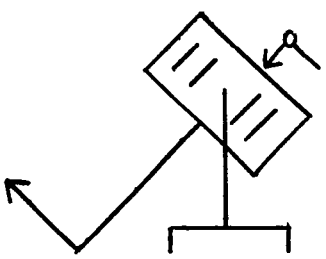
The first two considerations for musical bass drumming are size and positioning of the instrument. A drum must be large enough to produce the proper sound, but not so large that it overpowers the ensemble. A good size instrument has a head of about 32-34" and a shell about 18".

Part of the positioning factor is having the proper stand for the drum. A number of ring stands are available which suspend the instrument by rubber or leather strapping attached to the shell of the drum, thus absorbing vibrations and preventing them from creating extraneous noise. If one of these suspension-ring stands is unavailable, be sure to pad the cradle stand sufficiently. In any event, do not use two chairs to hold the bass drum.

Proper positioning within the ensemble is a must. Upright bass drums (that is, with the heads perpendicular to the floor) are only necessary on the football field because of carrying restrictions. In concert work, it is best to tilt the drum approximately 45° with the bottom head facing the audience so that the sound is reflected off the floor towards the other musicians, the conductor and the audience (See *Illustration 1.)* For passages in which a lot of quick dampening is necessary, an upright position is more practical.

One of the main contributing factors in the musical life of the concert bass drum concerns the qualifying part of its name; it is a BASS drum, not a tenor or alto or soprano drum. All too often, the heads of a bass drum are tensioned too tightly, taking away the bass quality and substituting a false higher-pitched hum.

Illustration 1



To produce a sound in the proper range of a bass drum, loosen the heads to a point where they just start to flap and then tighten each tension rod one turn only. This should be just enough to remove the flappiness and produce an excellent *bass* bass drum sound.

The next important consideration for a good concert bass drum sound is removing all muffling material from both heads. Muffling bass drum heads prevents the instrument from producing its true sound. A clarinetist would faint at the thought of taping his reed to the mouthpiece to cut down on vibrations, but this is exactly what many people do to their bass drums. *Allow the drum to sound.*

In most cases, let the bass drum ring to its natural decay point, not dampening the heads with hands or knees except in rare cases. An example of the latter is a passage followed by an extended silence, such as a grand pause, during which a ringing drum or cymbal would be inappropriate (unless specifically requested by the composer.)

The beaters chosen to actually strike the head must be of sufficient mass *and* weight to cause the entire instrument to resound, and at the same time hard enough to produce the inherent percussive quality of attack. The beater head should have at least a two inch diameter. Note that the size beater precludes use of timpani sticks, even though that nomenclature is often employed by composers. Timpani sticks have neither sufficient mass nor weight to produce a good fundamental sound from a large concert bass drum.

Unfortunately, none of the beaters made by the major manufacturers have the proper characteristics for bass drum and thus produce little more than surface noise. Avoid these "powder-puff" types; for better beaters, inquire of some of the private makers who advertise in *Percussive Notes.*

The next indispensable piece of equipment is a padded stick-tray. This allows fast, quiet stick changes and is highly recommended for all percussionists. A stick bag might be attached to the shell of the bass drum as a substitute for the tray, especially if space is tight in the section.

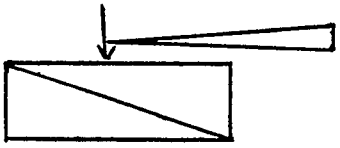
An often overlooked technical consideration concerns the path taken by the beater in striking the head. *Illustration 2* shows a common stroke employed by bass drummers. Comparison of this with snare drum technique shows the fallacy of using the stroke shown in *Illustration 2* (see *Illustration 3.)*

Illustration 2

The stroke on snare drum, as well as most other percussion instruments, follows a path relatively perpendicular to the surface being

struck, whereas the bass drum stroke in *Illustration 2* only brushes the head. The beater must "get into" the head to make it vibrate fully and no amount of brushing the head will do this.

Illustration 3



In addition to the type of stroke, placement on the head is also very important. The best spot for general playing is about 3-4" from the center of the head. An easy way to visualize this is to think of having a black dot on the head as there are on many snare drum heads and hitting the head at the edge of this imaginary dot.

While playing a part with constant reiterations, such as in a march, phrasing with the ensemble will add immeasurably to the total effect of the music. The percussion section, especially the bass drum and cymbal players, can really add that little sparkle to the music that creates an exciting performance. Again, the only way to do this effectively is by *listening* to the ensemble. (For excellent recorded examples of this, listen to the Frederick Fennell/Eastman Wind Ensemble march recordings recently re-issued by Mercury Records.)

There are many elements discussed here that will help produce a quality bass drum performance. However, one word is more important that the rest. The best equipment and the best technique mean nothing without *Sensitivity*. One must make every sound while being sensitive to all the other sounds occurring in the ensemble. But one must also NOT make sounds that are not called for in the score: foot tapping, throwing sticks on a music stand, dropping a triangle, etc. This, too, is part of being sensitive and perhaps more overlooked than any item mentioned in this article. *Extraneous noise is unmusical.*

So, with all of these thoughts in mind, go and enjoy playing bass drum!

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ONE VIEWPOINT OF PERCUSSION IN THE PUBLIC SCHOOLS

By Harry Marvin, Jr.

About the Author:

Mr. Marvin Jr. received B.M. degree in Music Education from the Berklee College of Music in 1969 and an M.M. in Percussion from Boston University in 1971. He has worked toward a doctoral degree from New York University.

Mr. Marvin has studied percussion with Glenn Brown, Fred Buda, Alan Dawson, Thomas Gauger, Arthur Press and Paul Price. He has a number of publications and honors to his credit including a listing in the ***World Who's Who of Musicians.***

Currently Mr. Marvin is Editor of HaMaR Percussion Publications, Inc.

Music Education has slowly changed with the times. School programs now include marching bands, symphonic bands, orchestra, various small group ensembles (both homogeneous and heterogeneous), and at long last, jazz band. As a general rule, instrumentation in the aforementioned programs are balanced with a somewhat reliable feeder system at both the elementary and junior high levels. The secondary music level (primarily high school) in more cases than not can confidently rely on suitable replacements for graduating students.

However are we as both musicians and educators preparing our public school students in *all* areas of our ensemble? Although I am sure every educator has their own particular interest and sense of neglect for their majored instrument, mine being percussion, I hope the following viewpoints will be evaluated by both percussionists and non-percussionists in a constructive, yet objective, manner.

What primarily concerns me are the following points. Is the instruction in percussion techniques generally ignored and school lessons being mostly limited to snare drum rhythmic studies? Are the students limited to being handed the timpani or xylophone mallets with little instructive or musical background? Is the percussion curriculum in sudden "bloom" at the secondary levels with little concern being given to its foundation at the primary levels? If one can answer to any of the preceding queries in the positive, a weak link in the program would appear to be prevalent. To put the dilemma in another light, is the same amount of instruction time which is given to the other band and orchestra instruments being distributed equally and in proportion with that of *all* percussion instruments? I simply ask then, why not build a strong program in all areas, including percussion? To aid both the musician and music educator, I offer the following curriculum building blocks.

In building any strong program the impetus must be at the elementary level with a strong carry through program at the remaining levels. Recruiting for "drum" lessons is an annual procedure with few needed selling points for obtaining volunteers and loaded with student enthusiasm. Often times there are more prospective "drummers" than the teacher would care to instruct. In fact, to achieve a balanced instrumentation many are coaxed into becoming students of the clarinet, trumpet, trombone, etc., or whatever else is needed at that particular time. I am not condemning or condoning this practice as it is often a necessity for maintaining an instrumentally balanced ensemble. However how often does the teacher take these eager "drum" students

(primarily snare drum) and channel their interest into other areas of *percussion.* More often than not the mallet instruments may be totally ignored and the beginning timpani techniques at the primary level seldom even considered.

Would the band or orchestra conductor consider not having as complete and competent a section as possible in the areas of brass, woodwind, or strings? In order to have a complete instrumentation, or as near complete at the secondary level, instruction for *all* instruments must begin at the program's roots-the primary level.

Perhaps for a start in developing a total percussion curriculum with immediate results one can persuade a piano student to become a member of the instrumental ensemble. I am purposely eliminating the needed study of mallet technique at this point as the scope of this article does not allow for such an in-depth study; however it should not be neglected in developing any sound program; many piano students, or accordion for that matter, do not have an opportunity to perform in an instrumental organization-unless they decide to choose another area of instrumental study. By adopting the preceding, results can readily be seen and heard; it also enables other students to be exposed to the possibilities of the instrument(s) and thereby making further recruitment, whether prospective keyboard students or not, easier.

The same sound "ear" techniques as used in auditioning, selecting and/or developing a French Horn player or oboeist, should also be carefully considered for that of a timpanist; again on the elementary level where the teacher has the time to instruct and the student the opportunity to develop and gradually progress at the various learning levels of public instruction.

The availability of instruments is a matter of paramount importance. In reality, without them there is nothing. Often times the high schools have more complete resources: xylophone, bells, 4 timpani, traps. This is also the case on a somewhat lesser scale at the junior highs. Again it's the elementary level which is most often ignored. Is there truly an advantage in having the instruments at the upper levels and not at the primary level? Where are the students that are expected to play the parts at the secondary levels to gain the experience, technique and knowledge? As a rule, instruction time at the former is more organized, there are less conflicts with scheduling, and the younger years enables the student(s) to grow musically. In addition, the beginning primary student is eager in studying a "new" instrument; no matter what it may be.

Perhaps one is to think that the general reason for this lack of development is an absence of instruments for the student to practice at home. There need not be. Portable xylophones are now available and roto-toms, although granted they do have limitations, will suffice in helping the beginning student develop basic techniques and fundamental interval tuning at his leisure.

The school music educator often provides the only instruction many students will ever receive. If the reason for lack of a percussion curriculum be know-how, again this can easily be rectified. Many universities and colleges now offer percussion method classes which aid the educator in the preparation and teaching of these methods. In addition, there is a plethora of excellent material available to supplement the above in developing. Many journals now have regular reviews of new material which help the educator and musician in keeping abreast of new trends, thoughts, and methods.

In conclusion, the responsibility of any well-rounded program rests with the individual teacher. It is the instructors' responsibility to take the initiative and begin to develop this aspect for the strength of a *total* program. Not to be excluded is the responsibility of the Music Director to develop a curriculum which includes a percussion program at all levels. It is then the Director's duty to see that the format is carried out by requesting instruments for purchase (or renting them) and seeing to it that proper instruction is offered. Indeed also it is the responsibility of the colleges and universities to require percussion method classes for all Music Education graduates. In addition, state, county, and local music festivals must try to encourage all aspects of percussion performance and to bear this in mind when compiling their selected music and listing the performance requirements. And lastly, it is the responsibility of the percussionist to look at his roots and take the time to see that the roll of the public school percussionist is continually nurtured by giving of his ideas and thoughts.

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President's Corner

As I assume the responsibilities of president of the Percussive Arts Society I cannot help but to reflect upon the tenure of my predecessor Gary Olmstead. During his term (1972-77), the P.A.S. grew in size from 3000 to almost 5000 members. We have established chapters in each state and a number of other countries. In addition, our financial status looks positive for the first time in a number of years. He administrated in a professional manner. As spokesman for our society, I thank Gary Olmstead for his dedication, contribution and achievements on behalf of the Percussive Arts Society.

The Executive Committee and Board of Directors will continue to respond to the needs of you, the members of the P.A.S., and to that end: to elevate the level of music percussion performance and teaching; and to promote a greater communication between all areas of the percussion arts.

Minutes: Board of Directors' Meeting
28 October 1977
Knoxville, Tennessee

Present: Gary Olmstead, Pres.; Jim Coffin, Mike Combs, Karen Ervin, Neal Fluegel, Marjorie Holmgren, Harold Jones, Ron Keezer, Joel Leach, Jackie Meyer, Jim Moore, Charles Owen, Jim Petercsak, Dick Richardson, Mike Rosen, Tom Siwe, Larry Vanlandingham, and Garwood Whaley.

Mike Combs reported that everything was running smooth and ready for the PASIC '77.

Budget: Neal Fluegel, Executive Secretary, reported that PAS is in the black. He did not present a formal budget report due to the illness of the accountant. Budget to be presented at the Chicago meeting in December.

Election of officers: Officer changes and new Board members will be effective as of the end of the convention. The new officers are as follows: Pres. James Petercsak; First Vice-Pres. Larry Vanlandingham; Second Vice-Pres. Karen Ervin; and Exec. Sec.-Treas. Neal Fluegel. The new board is as follows: Gary Beckner, James Coffin, Karen Ervin, Neal Fluegel, Norman Goldberg, Marjorie Holmgren, Harold Jones, Ronald Keezer, Joel Leach, Lloyd McClausland, Jacqueline Meyer, James Moore, Gary Olmstead, John O'Reilly, Al Otte, Charles Owen, James Petercsak, Dick Richardson, Michael Rosen, Fred Sanford, Tom Siwe, Gerald Unger, and Larry Vanlandingham.

After discussion regarding the restructuring of Sustaining Members' classification and dues rates, Tom Siwe moved to accept the following motion: "In order to more accurately describe the PAS commercial members, the following category names and dues assessment structure will become effective as of Sept. 1, 1978, with change in listing to begin immediately:

Manufacturers/Patron Members ($600.00)
Distributor/Wholesaler ($200.00)
Product/Specialist ($100.00)
Drum Shops/Other Retailers/Teaching Studios ($50.00)
Publishers ($35.00)

The motion was seconded by Garwood Whaley and passed unanimously.

PASIC "78": Merv Britton reported the PASIC "78" Committee is as follows: Mervin Britton, Chairman; Mike Combs, Gary Cook, Karen Ervin, Neal Fluegel, John Galm, Marjorie Holmgren, Mark Sunkett, and Larry Vanlandingham.

The convention will be held October 27, 28, and 29, 1978 in Tempe, Arizona at Arizona State University.

Meeting adjourned.

Respectfully submitted,

Jacqueline Meyer
Recording Secretary

Minutes: Board of Directors' Meeting
16 December 1977
Chicago, Illinois

Present: Jim Petercsak, President; Jim Coffin, Karen Ervin, Neal Fluegel, Norm Goldberg, Harold Jones, Ron Keezer, Joe Leach, Lloyd McCausland, Jackie Meyer, John O'Reilley, Al Otte, Dick Richardson, Fred Sanford, Tom Siwe, Larry Vanlandingham and guests - Mervin Britton, Brian Miller, and Mike Udow.

Jim Petercsak called the meeting to order and announced that the composition contest for 1978 would be for a Keyboard Percussion Ensemble consisting of three or more players. The adjudicators will be: Dan Kessner, John O'Reilly, Gordon Peters, Mike Rosen and Gitta Steiner. The names of Garwood Whaley and Richard Willis were submitted as alternates. Prizes are to be $400, $200, and $100.

PAS membership has increased by about 1,000 in the past year.

The budget was reviewed by the Budget Advisory Committee (Leach, Goldberg, Richardson, Canedy, and Rosen). A motion was made by John O'Reilly and seconded by Ron Keezer to accept the budget as presented. The motion passed unanimously. Beginning this year, there will be an Audit Committee to assist Neal Fluegel with the budget. President Petercsak will make the two appointments.

Merv Britton presented a report on PASIC '78 to be held at Arizona State University at Tempe, Arizona, October 27-29, 1978. There will be an Exhibit Committee established to decide matters pertaining to exhibits at the convention. Neal Fluegel will chair the committee.

A new committee will be established to investigate the scope and realm of our publications - PERCUSSIONIST and PERCUSSIVE NOTES. Neal Fluegel is to be chairman of this committee. Jim Petercsak will select committee members.

Karen Ervin suggested that state chapter chairmen be invited to help with the PAS exhibits at conventions. This would involve more people in PAS activities. She also reported changes in state chairmen and the addition of a chapter at the British Isles.

Jim Petercsak is to poll the Board to determine if the Board should meet at the MENC or Mid-West.

The new PAS Historian, Cynthia Soames, has been busy trying to put PAS memorabilia into some kind of logical order.

A motion was presented by Karen Ervin, at the request of the California State Chapter, for $350 to be used in sponsoring Contemporary Marching Clinics. The motion was seconded by Jackie Meyer. After much discussion, Ron Keezer called the question. The vote was 8-4-3; motion carried.

Meeting adjourned.

Respectfully submitted,

Jacqueline Meyer
Recording Secretary

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Letters to the Editor

MENDELSSOHN AND THE SUSPENDED CYMBAL

By Michael May
0711-70 Avenue,
Edmonton, Alberta,
Canada, T6G-OJ2

Editor's Note: Reprinted from the correspondence section of To the Editor of 'Music & Letters'.

Sir,

In the second movement of his eleventh string symphony, 1824, Felix Mendelssohn wrote the first part in Western music for suspended cymbal. Based on a Swiss wedding song, the movement is also scored for triangle and timpani, the three being a variation on 'Turkish' percussion, which had been used in Europe—although primarily by military bands—since the 1740's.

The manuscript clearly indicates that a single cymbal is to be struck in two ways—with rapid alternate sticking to produce a roll, and with individual strokes. The former is notated by semiquaver slashes on minim stems, with the letter 'W' *(Wirbel)* also written to the left of the staff. Single strokes follow in quavers, there being no indication for the percussionist to change to a pair of cymbals.

The function of the cymbal roll in this work is exceptional in comparison ith other usages. Piston writes: "Having a dynamic range from the softest whisper to a triple forte of incandescent power, the cymbal roll is a brilliant means of adding excitement to the orchestral crescendo".[1] Similarly, most other orchestration books and treatises (Berlioz's in particular) discuss the cymbal, single or paired, in terms of reinforcing dramatic qualities.

Such, however, is not the case with Mendelssohn. The second movement of this symphony is anything but dramatic, and, in itself, the only function of the cymbal roll is to provide a continuous background noise for its own sake.

This suspended cymbal part follows the first use of paired cymbals in Strungk's opera 'Esther' (1680) and precedes Berlioz's 'Requiem' (1834), previously noted as containing the first use of single strokes on a suspended cymbal,[2] as well as Wagner's (Dresden) 'Tannhauser' of 1845, which is likely to contain the next use of a suspended cymbal roll. Mendelssohn never used the suspended cymbal again, and probably the only other composition in which he wrote for any percussion instrument was the incidental music to 'A Midsummer Night's Dream'.

FOOTNOTES

[1]Walter Piston, 'Orchestration', (New York, 1955), p. 310.

[2]James Blades, 'Percussion Instruments and their History' (London, 1970), p. 370, plus correspondence with the author.

Dear Editor,

Please correct the error regarding publication of my "Cantos", on page 33 of PAS XV No. 1 Fall 1977. Cantos is published not by TRE, but SEESAW.

Also Ihave three new pieces which will be available through LANG PERCUSSION CO. early in February. They are: 1 -- Fantasy for Solo Percussion 1977 (A multiple percussion piece); 2 -- Eight Miniatures for Solo Vibraphone 1977; 3 -- Night Music for Solo Marimba 1977.

They have just gone off the the printers so they will be available by the time your next issue appears.

Thank you,

Gitta Steiner

Dear Neal,

The enclosed is an addendum for the *Commercially Available Excerpts for Percussion* which appeared in the Fall, 1977 issue of *Percussionist*. Included in this addendum is one item, "Classical Percussion", by Arthur Press. Mr. Press has compiled a number of excerpts for snare

drum, tambourine, triangle, castanets, bass drum, and cymbals; the booklet has the excerpt, along with commentary on performance, and there is a record with the excerpt played in the orchestra setting. I highly recommend this as a teaching tool, and I wanted to update my listing of *Excerpts for Percussion.*

Cordially,

Dr. David Vincent

COMMERCIALLY AVAILABLE EXCERPTS FOR PERCUSSION

APr - Arthur Press, *Classical Percussion"*, MMO 4065, Music Minus One, 43 W. 61 St., New York, 10023.

Bartok	*Concerto for Orchestra* - snare drum, APr15 (movt. 2 - meas. 1-10, 25-32, 114-160, 248-end)
Berlioz	*Hungarian March* - snare drum, APr13 (# 4-3nd)
	Roman Carnival Overture - tambourine, APr32 (# 3, 5, 16-17, 19-end)
Bizet	*Carmen Suite #1* - tambourine, APr34 (Aragonaise *)
Bloch	*Schelomo* - snare drum, APr23 (# 2-3, 4-5, 6)
Chabrier	*Espana* - tambourine, APr 36 (A, B. F)
Debussy	*Nocturnes* - snare drum, APr22 (Fetes - # 13-14, 22)
Dvorak	*Carnaval Overture* - tambourine, APr38 (start-B, T-end)
Liszt	*Piano Concerto # 1* - triangle, APr46
Nielsen	*Symphony #5* - snare drum, APr24 (movt. 1 - 34-cadenza)
Prokofiev	*Peter and the Wolf* - snare drum, APr18 (# 49)
Respighi	*Pines of Rome* - tambourine, APr41 (movt. 1 - # 7)
Rimsky-Korsakov	*Scheherazade* - snare drum, APr8 (movt. 3 - C-I, last 6 meas.; movt. 4 - C-E, N, P-U, W), tambourine, APr42 (movt. 4 - F, L, W), bass drum and cymbals, APr55 (movt. 4 - L)
Schuman	*Symphony # 3* - snare drum, APr19 (Toccata - 143-end)
Stravinsky	*Petrouchka* - snare drum, APr17 (Dance of the Ballerina - # 69-70), tambourine, APr37 (Gypsy Dance - Tempo I[0]), bass drum and cymbals, APr53 (Moors Room - #65; Waltz - #72-76)
	Sacre du Printemps - bass drum, APr55 (# 72)
Tchaikovsky	*Capriccio Italien* - tambourine, APr43 (D)
	Nutcracker - tambourine, APr40 (Trepak - A-end; Danse Arabe)
	Romeo and Juliet - bass drum and cymbals, APr52 (E-F, N-O)
	Symphony # 4 - bass drum and cymbals, APr50 (movt. 4 - start, H-end)
Wagner	*Tannhauser* - castanets, APr48 (Venusberg)

Dear Mr. Fluegel,

We have received, and as usual, read with interest the recent issue of the Magazine (Vol. XV, No. 1 - Fall 1977).

In the catalog of selected literature, page 31 et seq., appear many works by our composers but in a few instances a name of one of our dealers appears as being the publisher of these works. Since we do not wish your readers to have the mistaken impression that we are not the

publishers of these works, nor do we wish other dealers to object that their names were not used, we would appreciate it very much if a correction could appear in your next issue stating that the following works are published by Seesaw Music Corp. and available at *any* music dealer's:

Unaccompanied Solos: 17.
Duets: 2, 3, 10, 29.
Trios: 1, 4, 11, 12.
Quartets: 4.

Also on page 35 the old address still appears; we are now located at 1966 Broadway - New York, NY 10023.

While TRE Music is one of the many sheet music dealers who carries our editions and publishes his own list of available compositions, we believe it would be unfair to all the other dealers to have his name listed to the exclusion of all the others. Also, in all fairness, we are the publishers!

Thank you for your past and continuing cooperation.

Very cordially,

Raoul R. Ronson
President

Dear Neal,

Mr. David Levine's on Performance Practices in Beethoven's Music shows some very naive and glaring inaccuracies. i.e.: page 4, paragraph 7. "Twenty five measure roll which open the Violin Concerto".

Which Violin Concerto other than the D major concerto, which opens with repeated D's and then the A's and the V-I cadence did Beethoven write?

On Pg. 5 Paragraph 1, "In the finale of the 8th Symphony, Beethoven writes for double sticking."

Which edition pray tell, did Mr. Levine find this in? Breitkof - Boosey -- any timpanist student with knowledge of rhythmic clarity will tell you that that excerpt must be played with alternate sticking (RL. RL. or LR. LR.) to obtain best musical result.

Mr. Levine should not submit and I think P.A.S. should not accept/print articles which do not have as their basis, sound musical experience. Bibliographic research alone is not basis for a professional magazine or journal.

Best regards,

Arthur Press

Dear Mr. Fluegel,

I must write this letter because the recent issue of the PERCUSSIONIST (Volume XV, Number 1, Fall, 1977) contains an article written by David Levine of 8567 Balboa No. 7, Northridge, CA 91324. Specifically, the article, PERCUSSION INSTRUMENTS AND PERFORMANCE PRACTICES IN BEETHOVEN'S MUSIC, and in particular, the section on TIMPANI, contains just a bit of misinformation for our readers. Allow me to explain.

First, on page 3, he states "Instructional methods of the time called for the large drum to be placed on the right, a practice opposite to today's arrangement of timpani." How can he make a statement like that? As far as I know, the practice is still going on. The highly respected Mr. Cloyd Duff, the timpanist of the Cleveland Orchestra, performs in this manner as do many of his great students. And one must not forget the venerable timpanists in the European (or "continental" as Mr. Levine mentions) orchestras who still perform on their kettle-drums with the large instruments on the right. True, most timpanists in our major symphony orchestras do perform with the large instruments on the left. And that is for our United States. But as I have stated, both ways are still being used.

Second, on page 4, he states that "in the eighth symphony the range is again expanded to a minor sixth, A to F, and by the time of the ninth symphony an octave, F to F, was available." Could it be that this is simply a matter of getting the Beethoven Symphonies all mixed up? If I am not mistaken, the minor 6th, A to F, is in the Seventh (7th) Symphony and specifically the third (3rd) movement. And in *both* the Eighth (8th) and Ninth (9th) Symphonies the octave, F to F, is put to use. To be precise, the F to F octave in the 8th is in the 4th movement, while the F to F octave in the 9th is in the 2nd movement.

Third, on page 4, he states that "Beethoven was most likely the first to use the timpani as a solo voice for an extended length of time. The 25 measure roll which opens the Violin Concerto and the octave F's opening the scherzo of the Ninth Symphony are examples of this." What is this about a 25-measure roll which opens the Violin Concerto? Once more, this is probably a matter of getting 2 Beethoven compositions mixed up. That 25-measure roll (on a B-Flat) occurs in the 1st movement of the Fourth Symphony as a bridge or pedal point from the development to the recapitulation. And it goes from pianissimo (pp) all the way to fortefortissimo (ff). Can you imagine that roll obliterating the opening of Beethoven's Violin Concerto?

The Violin Concerto opens with solo timpani immediately stating the motif to be used by the whole orchestra throughout the whole 1st movement. It is a very simple 2-measure idea on D and A. There are 5 quarter notes: 5 are on the D. A few measures later the timpanist plays 1 D and 4 A's. And then a few measures later the timpanist resolves the

motif with 6 quarter notes: 4 on the A and then 1 on the D, 1 on the A, and finally 1 on the D. How else could it be?

And I can understand his statement about the octave F's opening of the scherzo in the Ninth Symphony being used as a so-called solo voice. However, those octave F's are used throughout the whole movement and not just at the beginning of the scherzo.

Fourth, on page 5, he states "In the finale of the 8th Symphony Beethoven writes for double sticking (referred to double tongueing in Beethoven's day), another technique which must be mastered for proper performance." Do all timpanists today play those passages in a so-called double sticking style or technique? Somehow, it seems to me that playing those octave F's in a single sticking technique incorporating discrete cross-sticking style and technique will be perfectly acceptable and in good taste. Moreover, it may even sound better! Naturally, I am referring to the last 22nd and 23rd and 12th and 13th measures of the 4th movement or finale of the Eighth (8th) Symphony. And I assume these are the precise measures Mr. Levine mentions in his article.

Finally, on page 5, he states that "The opening of the first movement of the Ninth requires the utmost care in playing the thirty-seconds cleanly, and moving from the D to the A at the precise time it is notated for." How true that statement is. However, has Mr. Levine ever performed the 9th Symphony with a conductor who prefers to space out that 16th measure and then plunge in and proceed forward at an unevenly new tempo? My impression is that Mr. Levine has not performed this symphony with a major orchestra. Until he has done so, that statement of his cannot hold up. Naturally, I assume he is referring to those opening 16th, 17th and 18th measures. Okay, let's include the 19th. And that musical example of his on page 5 concerning the 32nd's is not the correct one. I am referring to the bottom line in reference to the Ninth. That example comes later on at reheasal letter "K". That is the recapitulation. Are they really played as 32nd's? Again, the conductor will probably determine this by the tempo to be chosen, how much extra time or measure beating is added to those 4th, 8th and 10th measures after letter "K", and dynamics including diminuendos and crescrendos.

And while I am at it, the musical example for the finale of the 8th symphony is backwards. It should start with the lower F's. This is also on page 5 and second from the bottom.

While I am simply a member of the PERCUSSIVE ARTS SOCIETY, in no way am I going to let mistakes of this nature get by. I only hope that Mr. Levine gets his musical examples corrected before submitting his completed article to you for publication.

I could mention the fact that here in Cincinnati the CSO has 2 huge ratchets that stand on the floor and are about 4-1/2 to 5 feet high. And are they ever loud!!! They are only used in Beethoven's Battle Symphony. Hence, that statement on page 2 concerning the ratchet is

only partially correct. For all we know, ratchets were not only the small kind that can be held in your hand or mounted on the bass drum or trap table, but they were also of many different sizes and loudnesses. And they are still similar and different today as they were in Beethoven's time.

Well, Mr. Fluegel, that finishes my letter to you and the PERCUSSIONIST. I do hope you will print this, for I feel that our readership has been misled. A correction is in order. Now, I only hope that my research is not full of mistakes. And I thank you for keeping me informed via your wonderful publication and membership. You are doing a tremendous job. So long for now.

Most sincerely,

Eugene Santiago Espino
Principal and Solo Timpanist,
Cincinnati Symphony Orchestra
1241 Elm Street
Cincinnati, Ohio 45210

Dear Mr. Fluegel,

Reading the catalogs of percussion works in Percussionists as well as in Percussive Notes, I always wonder why on your lists is missing one of the most important and best known European publishers such as PWM - Polish Edition?

PWM is an internationally known company with a great reputation especially in publishing contemporary music. Among the large list of publications there are *lots of music for percussion* or with percussion (solo, small ensemble, concertos, etc.). It is very easy to find all that by asking PWM for a catalog. The mailing address is:

PWM - Biuro Handlu Zagranicznego
Krakowskie Przedmiescie 7
00-071 Warszawa Poland

or

PWM - Biuro Handlu Zagranicznego
P.O. Box 26
00-071 Warszawa Poland

I think that many percussionists as well as percussion instructors would be interested in performing these compositions if they will know about its existence.

Sincerely,

Marta Ptaszynska

P.S. My piece "Siderals" for two percussion quintets and lighting projection was chosen to be performed on the "International Music Days" of the International Festival of Contemporary Music ISCM which will be held next year in Helsinki, Finland in May 1978.

Dear Sir,

I have been most interested to read the article by Harold Howland on the history of the Vibraphone in the recent issue of The Percussionist, which has just reached me.

I noted with interest, also, that Mr. Howland had received communications from two of my old friends . . . Charles Botterill & Professor James Blades.

Would you please allow me, as an amateur drummer & vibraphonist, to add to their remarks, particularly with regard to the history of the Vibraphone in this country.

It was, I think, in 1928 or 1929 that the Premier Drum Co. introduced their first Concert Vibraphone. It was a heavily-built instrument of 3 Octaves (F to F) & was, I believe, the first one to have a rigid damper-pedal mounted on the frame, as opposed to the movable pedal with a flexible wire-control as fitted to the Leedy instrument.

Previous to this, Premier had had the 2-1/2 Octave (G to C) Harpaphone (a sort of resonated Bass-Glockenspiel), as mentioned by Charles Botterill, in their catalogue for about 2 years or so. It was mounted on the same folding stand as was fitted to their lightweight Xylophone of the period. Incidentally, the Harpaphone was quite often featured on broadcasts & records made by Jack Payne & his Band, who were the resident B.B.C. Dance-Band from 1928 to 1932; the drummer/xylophonist was Bob Manning who, later on, emigrated to the U.S.A.

In 1932 or thereabouts, Premier introduced their "Small" Vibraphone; this was, in no sense, a light-weight instrument but was merely the Concert model without the bottom Octave, it being a 2 Octave (F to F) vibraphone; it still had the heavyweight stand & frame, but was intended for use in small Dance-bands & Orchestra-pits where space was limited.

It was not a commercial success, however, possibly due to the lack of carrying-power from the missing lower Octave, & it was withdrawn from the catalogue in about 1934 with the appearance of the New Sterling model.

This latter was a true lightweight vibraphone of 3 Octaves (C to C) with a slimmer frame & stand; it could be supplied with either an electric or clockwork (Phonograph) motor. Though not a soloist's instrument it possessed good tone & carrying-power, for its size, & was extensively used by small Dance-bands & in the Orchestra-pit of numerous musical shows. (The Writer had one of these lightweight vibraphones for a period of 20 years & it gave excellent service).

Meanwhile, the Concert Vibraphone continued, almost unchanged, & for a brief period in 1937, a 3-1/2 Octave (F to C) instrument was included in Premier's catalogue, for use as a soloist's instrument. Not many of these models were built, however, & it was dropped

from the list when Premier up-dated the stand & framework of their Concert model in 1938.

While all this was going on, Messrs. Boosey & Hawkes of London (who were Premier's great rivals & competitors) were manufacturing, under their Trade-name of "Ajax", a series of Concert & lightweight vibraphones which, though of excellent design, manufacture & finish, never quite achieved the popularity of the Premier models.

In their 1939 catalogue, Boosey & Hawkes advertised a 4 Octave (C to C) instrument but few, if any, of these monsters were built before the outbreak of War in 1939 stopped all musical instrument manufacture in England & the Writer never saw or heard one of these "in action".

After the War, Premier re-commenced the manufacture of their Concert model, in rather different form & with an entirely new stand & metal framework; it is still in their catalogue & has been joined by a very similar model (also, F to F) but of somewhat lighter build.

Messrs. Boosey & Hawkes never re-entered the Vibraphone lists after the War & they ceased all percussion instrument manufacture some ten years ago, but the firm of "Viscount" under the leadership of John Peachey now manufactures Xylophones, Vibraphones, Glockenspiels & Tubaphones of slightly unusual design but of excellent tone & hand-made quality to special order.

This, then is the brief history of the Vibraphone in England, as I believe it to be, & I must apologize for any error or omissions which are entirely of my making.

I hope that these few notes will be of interest to your readers.

Yours very truly,

Michael H. W. Holloway

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Time and Place

Now is the time to begin making plans to attend the third annual Percussive Arts Society International Convention (PASIC) at Tempe, Arizona.

The dates for this convention are October 27-29. It will be a beautiful time of the year to travel to Tempe and the program is shaping up to be the best yet.

Remember the dates October 27-29, 1978.

Seventh Annual Percussion Symposium sponsored by School of Music, East Carolina University, Greenville, North Carolina 27834, June 25-July 1, 1978.

For further information contact Harold Jones at the University.

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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