Percussionist

An Official Publication of
PERCUSSIVE ARTS SOCIETY, INC.

VOLUME IX, NUMBER 4
SUMMER, 1972

PERCUSSIVE ARTS SOCIETY, INC.
(PAS)

PURPOSE--To elevate the level of music percussion performance and teaching; to expand understanding of the needs and responsibilities of the percussion student, teacher, and performer; and to promote a greater communication between all areas of the percussion arts.

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In this issue

POLYRHYTHMIC PATTERNS FOR THE DANCE DRUMMER

by
Robert B. Clayton

About the Author:

Lt. Clayton earned his Bachelor of Applied Music and Master of Education degrees from the University of Florida.

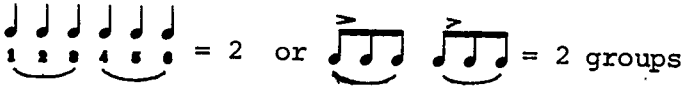
Lt. Clayton has had a wide range of experience in the musical field playing throughout the South with show bands and combos including Warren Covington's and Johnny Long's bands. He has recently completed a manuscript entitled "The Art of Dance Band Drumming."

At the present time, Lt. Clayton is the Deputy Commander/Associate Conductor of the Military Airlift Command Band at Scott A. F. B., Illinois.

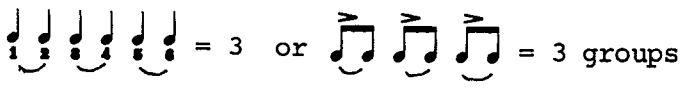
A polyrhythmic pattern (polyrhythm) is the simultaneous performance of two or more different rhythmic patterns. The use of polyrhythmic patterns in dance drumming is certainly not uncommon, however to perform them sufficiently, a dance drummer must have mastered the basic techniques of coordinated independence between his hands and feet. Therefore, this is an area that is often avoided rather than mastered. The two most common ways in which polyrhythmic patterns are performed on the drum set is between the ride cymbal (right hand) and the snare drum (left hand) or between the snare drum (left hand) and bass drum (right foot).

In order to understand and perform a polyrhythmic pattern it is necessary to see how the two rhythms fit together and then see how they can be applied to the drum set.

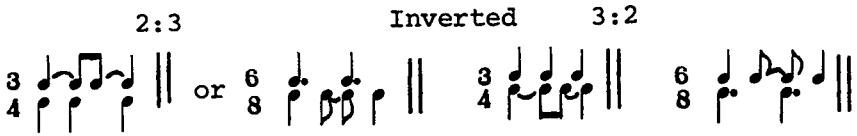
Let's start with a simple and common polyrhythm, 2 against 3. The first step is to find a common denominator for the two rhythms. This can be done by multiplying them together. In this case the common denominator is 6. If we allow the eighth note to be the common unit of measure, the polyrhythmic scheme can be expressed in notation as follows:



2:3



Now the two groupings can be placed in different meters.



The next step is to find the resultant rhythm, which is obtained by combining the two rhythms into one rhythmic pattern. This superimposition may also be expressed in this fashion in order to help find the resultant rhythm.

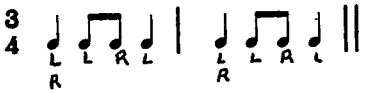
Right Hand 1 2 3 4 5 6 (plays on 1 and 4 counts) = 2
= 2:3

Left Hand 1 2 3 4 5 6 (plays on 1, 3 and 5 counts) = 3

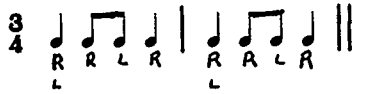
Resultant rhythm (♪ note unit) -

In applying this pattern to the drum set, the sticking will determine what function each hand is playing in the performance of the polyrhythm.

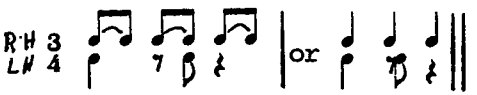
In the following example the right hand (ride cymbal) is playing or superimposing 2 against the left hand's (snare drum) 3.



In this pattern the right hand (on the ride cymbal) is playing or superimposing 3 against the left hand's (on the snare drum) 2.

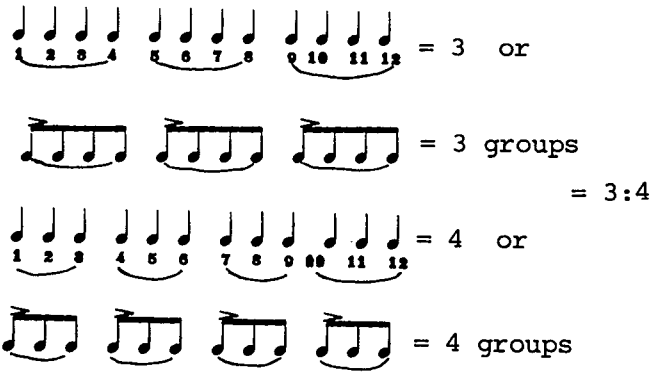


This polyrhythmic pattern may be seen in drum parts or independence exercises as shown below:

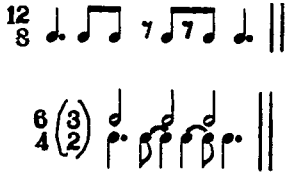


How you stick the polyrhythm is very important, because each sticking pattern produces a different sound from the drum set. If you alternate the sticking you reverse the polyrhythm. I might add that by alternating the sticking pattern of the polyrhythm you can get some nice effects on the drum set.

Another common polyrhythm is 3:4. This has the common denominator of 12. Assuming again that the eighth note is the common unit of measure (or one of those 12 units) we can express the polyrhythmic scheme as follows:



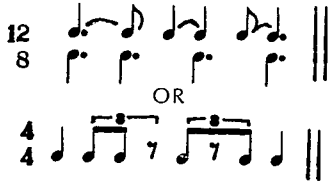
This polyrhythm may also be arranged metrically into either 12/8, or 6/2 (3/2).



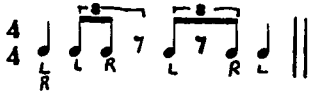
Now we find the resultant rhythm. This can be better derived if we write out 3:4 in this manner:

RH 1 2 3 4 5 6 7 8 9 10 11 12 (plays 1, 5, 9 counts) = 3
= 3:4
LH 1 2 3 4 5 6 7 8 9 10 11 12 (plays 1, 4, 7, 10 counts) = 4

Resultant rhythm:



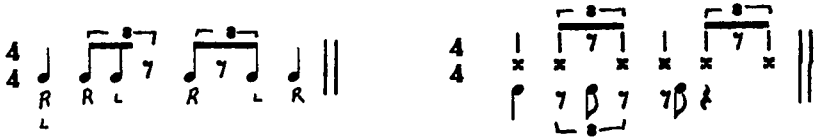
If it is sticked in this manner, the right hand is playing 3 against the left hand's 4 beats:



Variation Pattern (as may be seen in drum part):

If the sticking is alternated, then the left hand plays 3 against the right hand's 4.

Variation:



In either case, you are still performing the polyrhythmic pattern 3:4. The sticking just determines which hand is superimposing what rhythm on the other.

Once these patterns can be performed effectively with the right and left hands, substitute the bass drum (right foot) for the right hand in the exercises. This will produce an entirely different effect.

In order to play polyrhythmic patterns, they first must be intellectualized so that the drummer can practice the "mechanics" of performing these polyrhythms. This requires a proficient amount of technical coordination. After the drummer can sufficiently play the polyrhythms, the next step is to acquire a "feel" for the particular rhythm. In other words, to be able to perform the polyrhythmic patterns effectively, the drummer must be able to make them "swing".

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Time and Place

The Annual meeting of the Percussive Arts Society, Inc. will be held in Chicago on December 15 and 16, 1972. It will be in the Sherman House in conjunction with the Mid-West Band and Orchestra Clinic.

The general membership and Board of Directors meetings will be Friday, December 15 in the late afternoon and early evening. On Saturday, December 16, a full afternoon and evening of percussion performances and/or clinics will be held. It will include outstanding solo and ensemble performances and presentation of the first annual awards for the percussion Hall of Fame.

Plan now to attend this outstanding program sponsored by your PAS. Specific times and list of performers will be announced in the fall issues of PERCUSSIONIST and PERCUSSIVE NOTES.

ASSISTING THE NON-PERCUSSIONIST BAND DIRECTOR

by
Larry Snider

About the Author:

Larry Snider has received a B.M.E. degree in 1969 from Illinois State University at Normal, Illinois and a M.M.E. in 1971 from North Texas State University at Denton, Texas.

He has also played professionally as a percussionist around the Dallas and Chicago areas and is presently teaching privately in the Kankakee, Illinois area and band director in Bradley, Illinois.

Recently because of my training as a percussionist and music educator, I was asked to judge high school percussion solos and ensembles in a relatively strong music oriented area of my state. This was my first experience judging, and I can truly say "my eyes were opened." Because of my being a percussionist and stressing this area in my own band program, I was not aware of what is being taught by band directors who evidently have little knowledge of the percussion field.

For example, one concerned tympani soloist did an adequate job of playing a solo for four tympani as far as stickings and rhythms were concerned; however, he did not realize that the tympani had to be tuned to certain pitches specified by the composer. Far fetched, but very true!

Drastic cases of ignorance in the percussion field also occurred with the snare drum solists. One snare drummer thought that the number "7" written above a roll in his military drum solo was the number of a measure in the composition. Other snare drummers played concert style snare drum solos with drum corps style techniques and large street size sticks. The opposite was also true--rudimental drum corps style solos were played with very small dance drum sticks with closed buzz rolls.

Use of wrong equipment also showed me how unaware some band directors must be in the percussion area. One performer played a marimba solo that had most of the notes written in the lower register of the instrument. The student performed the solo with plastic bell mallets because his band director did not have any marimba mallets available, and the student was not required to have his own mallets. One percussion choir, who did an excellent performance of a famous percussion ensemble piece, also used the wrong equipment. The tympani player was playing his part with red yarn marimba mallets when the part called for medium tympani sticks. Still another example was a chime player who played the chimes with the butt end of a large drum stick.

Upon investigating the directors of these percussion students, it was found that they were of three kinds: 1) not knowledgeable about percussion education 2) unconcerned about percussionists (or some that were unconcerned with music and their job) 3) and those that said they did not have facilities and equipment to produce good percussionists.

For those band directors who fail to realize the relevance of good percussion education in their musical organizations, we as percussionists can only hope that someday these directors become aware of the vast quantity of contemporary music that is written for bands which stresses the percussion section often as the "backbone" of the composition. This type of music usually contains very musical and intricate mallet, tympani, snare drum, and accessory percussion parts, and the directors must realize the importance of the percussion section to the total effect of the music. We must hope that this lack of concern among directors does not spread, as it possibly could, to the student percussionists in these organizations; but rather, that some of the students who are seriously interested in percussion instruments may study privately with a percussionist.

For those directors who are unknowledgeable in the field of percussion, there is much hope. First local percussionists may be called upon as a consultant. Any director concerned with his organization should not be embarrassed to ask for help from an expert. Also, he may keep available a list of private teachers which he feels reputable so that his students may, if desired, have private instruction.

Going back to college during the summer to refresh or learn new techniques in percussion may sometimes be impossible for many devoted band directors since more and more summer music programs are being organized in the school systems. In this case, the director could suggest summer clinics for the student percussionists. Many universities offer programs in summer band camps that are designed specifically for developing techniques in each student's own area of music. Yet, for those students uninterested in summer band camps, the director could consider arranging a period of time each week in which a percussionist specialist would come to the school and teach, in a classroom type situation, the more technical types of percussion performance in which the band director is not familiar. Thus, the band director can carry on developing these techniques in his students after the students develop the initial concept.

The band director who feels he does not have the facilities or equipment to develop good percussionists, does not really then have the facility to develop any musician. It takes the same type of band facility to develop clarinetists, flutists, and saxophonists, etc. as it does percussionists. The question is only, "Who comes first?"

Some directors feel they need more money to buy a new bass clarinet than to purchase correct mallets and accessory percussion in-

struments. To this, may I say, let each percussionist purchase his own mallets, sticks, and small percussion instruments. After all, since the director would expect each other instrumentalist to purchase a good quality instrument, why shouldn't the director expect the percussion student to buy their own wood blocks, triangles, mallets, and tambourines as well as some larger instruments like snare drums.

As percussionists and percussion educators we all seem to get tied up in our own little percussive world and take for granted the knowledge that percussionists in school music organizations have as well as knowledge that directors have in educating these students. As percussionists, if we are devoted to bettering percussion in music, we must help these people when the time arises by volunteering help and promoting and developing pride in our art.

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President's Corner

Throughout my association with the Percussive Arts Society, and most specifically as your President during the past five years, I have felt a tremendous need for more grassroots participation.

To help meet this end, State Chapters have been established to provide a platform for dialog between members and the national organization. These chapters are also in a position to make it possible for them to relate to specific state and regional problems. These chapters have been developing very well, and in a short time should be the backbone of our Society.

The Board of Directors believes firmly in State Chapters and is diligently working on proposals which will help strengthen them. By our December meeting, specific steps should be formulated in the development of this goal.

The State Chapters, however, will only be effective if all individual members actively participate in state and regional functions. Plans for Percussive Arts Society participation in a multitude of clinics and conventions during 1972 through 1973 have already been formulated. Please consult your state bulletins as well as PERCUSSIONIST and PERCUSSIVE NOTES for announcements of these functions and plan to support them.

It is your President's belief that the future of our Society will be built on a close association between State Chapters and the national organization.

PERCUSSION RESEARCH AND STUDIES

by Sherman Hong

Professor of Percussion
University of Stuthern Mississippi

Knowledge in percussion music, structure, construction, and expanding performance techniques has increased rapidly. But this great expansion has been retarded by poorly organized dissimination of pertinent research to all interested percussionists and teachers.

It is the purpose of the *Percussion Research and Studies* column to dissiminate beneficial research materials to the readers. If any readers would like to have their studies reviewed, know of research done by others which might be pertinent, or would like to do abstracts of studies, please contact PAS or me. Studies should be pertinent and/or provocative.

The following is the first of many reviews to follow. Combs, J.C. *The Problems of Sight-Reading on Mallet-played Instruments and Their Relationship to Kinesthetic Sensation.* Doctoral dissertation, University of Oklahoma, 1967. Published by University Microfilms, Inc., Ann Arbor, Michigan.

Introduction

The performer on a mallet-played instrument can not rely on tactual sense (touch), but must rely more on a kinesthetic sense (sense of muscular motion or forces used in producing or changing the motion of bodies). The author stated there was a sizeable amount of research in kinesthetics, but there was little research as to how it directly affected specific motor skill, such as those used to play any particular musical instrument. The intent of this study was to show how kinesthesis and vision applied directly to the techniques used in learning to sight-read on mallet-played instruments.

Problem

In sight-reading, the primary concern was to determine if the practice of looking back and forth between music and the instrument was to be or not to be recommended. Consequently, Combs developed and tested four *null* hypotheses:

1. There is no significant consistency in accuracy when a visually selected distance between mallets is later attempted by the same procedure.
2. There is no significant consistency in accuracy when a kinesthetically selected distance between mallets is later attempted by the same procedure.

3. There is no significant difference between a visually selected distance between mallets and a later attempt to repeat the same distance without vision.
4. There is no significant difference between a kinesthetically selected distance between the mallets, and a later attempt to repeat the same distance visually.

The Procedure

The experiment consisted of a test carried out between a xylophone and a model keyboard made of cardboard; the dimensions of the model were the same as the xylophone. The test consisted of various attempts to match distances between mallets. Those attempts were made in the following manners; (1) visually, (2) non-visually, and (3) a combination of both visual and non-visual. A distance was first formed on a xylophone, and then an attempt was made to match the same distance on a model. The attempts were recorded in feet and the totals were recorded on bar graphs for reference. The bulk of the data came from comparing individual totals accumulated by the subjects for the steps of the test. From those totals, mean error scores were computed for each subject; moreover, an "accuracy range" was established to act as further evidence by which the decisions concerning the hypotheses could be made.

Conclusions and Recommendations

Based on the data in the study, the following conclusions were made:

1. As long as a student can keep his eyes fixed on the instrument, any attempt to repeat distances between mallets should be consistent. This consistency worked only when a piece of music was committed to memory and no sight-reading was to take place.
2. When a student kept his eyes fixed on the music, any attempts to repeat distances between mallets should be consistent. According to the results of the test, this method would be more accurate than if the distances were formed entirely by vision.

Based on the data in the study, the four *null* hypothesis stated earlier were rejected. As a result of the findings, the author made several recommendations:

1. In order for a mallet student to sight-read successfully, his eyes must be in fairly constant contact with the music. The data suggest that the shifting of the eyes from the music to the keyboard is a practice which should be condemmed, in most cases. Variables such as tempo and size of interval would affect the shifting of eye contact between instrument and music.

2. Mallet students should be trained with specific materials designed to increase sight-reading skill. The author offered a premise that students are trained to be inadequate sight-readers because of the material format presented in mallet method books. In many books, scales were presented in an organized and continuous rhythm pattern throughout; hence, once the patterns were memorized the need to look at music was almost completely eliminated. In many method books the melodies given usually corresponded with scales presented prior to the melodies and, in fact, the melodies were of a predictable nature, thus allowing them to be quickly memorized and eye movements were soon focused primarily on the instrument rather than the music. The author advocated that scales be based on changing rhythm patterns, octave skips, and irregular meter changes; moreover, the melodies presented would be along the same mode.
3. Research needs to be done on the premise that individual differences do exist among people in relation to their kinesthetic sense. If there were some method to test individual differences in kinesthetic response, it would be possible to guide those with varying strengths of response to instruments requiring varying amounts of kinesthetic sense.

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EFFECT OF OTHER MUSICAL ELEMENTS UPON RHYTHMIC STRESS PERCEPTION

by Grant Fletcher
Professor of Music
Arizona State University

Cont. from p. 85, Volume IX, Number 3 of Percussionist

PATTERN PULSE

Pattern pulse, listed as notational rhythmic means number 3, occurs after measure 52 in movement I of the Brahms' D major Symphony. The six-note pattern is shortened in duration, recurs again in the woodwinds in the same fashion, is canoned in the basses and finally drops its first two tones. All these alterations of pattern values are changed in relationship to the metric basis generated by the articulations and slight changes of the "filling" voices. These several

changes of relationship of idea pattern to the metric basis are called the *pattern pulse*. Do not confuse the latter with other rhythmic means which are also present in this passage. Until bar 57, the metric idea is sufficiently strong to corroborate the fact that the pattern occurrence is a true syncopation and not a Brahmsian cross rhythm. A pattern includes the elements of both pitch and durational stress characteristics. It is a formal entity, whether considered from a long or short period of recognition. We could hardly recognize a pattern when we hear the first note of its repetition, and it is difficult to determine where we first recognize that it is recurring, if we are not somewhat familiar with the music. Still, the patterns of short figures, such as in the Bach preludes just mentioned, give a sense of recurrence by figure as well as from other characteristic elements. Do not confuse the pattern pulse as here named with the pulse patterns discussed in Chapter III. Pattern pulse stems from the recurrent relationships of the pattern of pitches or of the rhythmic elements indigenous to the musical idea, while pulse patterns are the generally accepted stress relationships notated by meter signatures.

LINEAR FLOW

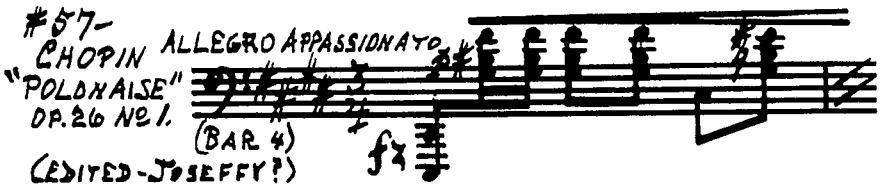
Means number 4, the linear flow, is sometimes difficult to differentiate from pattern pulse - in fact, sufficient repetition of a pattern in sequence creates a type of linear flow. It is probably most easily identified as the directional tendencies common to well organized patterns of relationship. An obvious case would be the scale forms or arpeggiated chord forms, and as such these need not be repeated to be recognized as definite linear entities. Once such a line is set in motion it seems quite natural to continue it until diverted by some other element. Pitch patterns certainly contain a variety of these linear elements. Measure 59 in movement I of the Brahms' Symphony No. 2 begins a type of linear rise, in this instance stemming from the harmonic functions. This linear element is often connected with the harmonic changes, for it is partly by the confluence of such lines that the harmonic function becomes necessary and most usable. In the Beethoven Fifth Symphony, movement II, measure 134, an excellent example of such linear confluence effecting harmonic elements begins in the woodwinds.

PITCH TENSION

Changes of pitch tension, notational means no. 5, define rhythmic points. The verse part of the familiar song "MY BONNIE LIES OVER THE OCEAN" contains only a few bars in which the metric pulse is not corroborated by this means. Of course this is not the only means used to identify the meter in such obvious material. Acute pitches are used even more often to identify a phrase stress point than they are as bar corroboration. One note higher or lower than the general compass of a passage gives this aural rhythmic definition. I shall hereafter refer to the stress created by acuteness of pitch as *pitch tension*.

SONORITY OF RESONANCE

The sonorous resonance of bass timbre, notational means no. 6, has proven particularly useful to the harmonic styles of composition. Any Viennese Waltz will furnish almost never-ending examples, or see the pianistic mechanics of Chopin's more homophonic writings (Ex. 57). However this element often marks phrase pulses as well, in the more contrapuntal styles.



DISSONANCE TENSION

Composers (and even theorists) since long before Palestrina, have recognized the fact that stronger and weaker beats existed. Witness this in the texts of any period, for most earlier styles have been determined by their uses of consonance in relationship to these stresses. In styles where consonance was paramount, dissonance was only allowed on weak beats where it was relatively unobtrusive. Gradually our concepts of dissonance have changed, but more important yet has been the fact that we have allowed the relationship of dissonance to stressed beats to change also, until now it is definitely necessary to use them on heavy stresses of all kinds, to obtain acute dissonance. Tendency no. 7 refers to such dissonant tensions which may define either weak or strong beats in accord with the basic tonal conception of the composers' sound language. If *consonance* is the criterion for a tonal style, it will occur on the heavy units of the division, beat, bar and phrase group. If *dissonance* is the basis of the style, these same points will contain dissonances struck together. Yet *wherever* dissonance may occur in the various stylistic conceptions of its use, it will be recognizable as a change from the context. And the more harsh these dissonances become, the more they will tend to define perceptible stress points. In the predominantly consonant styles most dissonances (in the usual academic sense of the word) were treated as an obscurement of the tonal relationships and relegated to rhythmically weak points (short tones, unstressed beats, seldom struck together). Other rhythmic elements retained the metric stresses elsewhere. But the contrapuntalists never forgot the use of the suspension dissonances as a means of intensifying stress points. I shall hereafter refer to this ability of articulated dissonance to create stress points as *dissonance tension.*

Under notational means no. 8, I have attempted to include all the obvious types of bulk changes. This refers to the number of instruments used, fullness of texture (orchestral depth, harmonic fullness, melodic and contrapuntal complexity), articulation of various types (tongue, fingered pitch changes, fingered and sticked percussion, bow, etc. . . .), and the changes of intensity which should be considered as closely allied to the dynamic accents discussed before. It must be remembered that any change of tonal color or sonority (orchestral timbre, or timbre changes on a single instrument, or varying extensity), or change of any element whatsoever will furnish the ear a point for the comparative measurement of duration or stress units; but in this chapter we are primarily discussing stress perception. The bulk changes present in a musical score will figure greatly in the analysis of examples given later in this chapter and in Chapter VII. It is obvious that bulk is a stress means much like that of physical emphasis, and methods of articulation produce finely graded stresses of many types. Articulation shall be discussed more completely under mechanics of production.

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THE PERCUSSION ENSEMBLE 1930-1945
by Larry Vanlandingham

Cont. from page 81, Volume IX, Number 3 of PERCUSSIONIST

Cont. from page 81, Volume IX, Number 3 of PERCUSSIONIST

Such was not the case regarding Edgard Varese's *Ionisation.*

> I also became increasingly interested in internal rhythmic and metric relationships, as in *Ionisation.* I was also interested in the sonorous aspects of percussion as structural, architectonic elements. But this was not my first percussion piece. I had already done some in Berlin and Paris, especially in connection with the choruses I conducted in Berlin. These works used special percussion instruments that I had collected myself, which the singers often played themselves.[1]

In his use of percussion with other instruments, Varese added to the composer's resources a variety of new instruments and timbres. He placed percussion in a truly independent position by integrating its sound into his works. Though his music was often termed experimental, Varese maintained that each composition was not an experiment, but a finished product, and that his experiments "went into the waste-paper basket."[2] The following Table 2 shows that *Ionisation* was not an isolated venture in the use of percussion, but that percussion instruments were indeed featured by Varese in prior works.

Ionisation (1931) requires thirteen performers playing thirty-nine instruments.

(1) *Cymbale Chinoise* (Chinese Cymbal) - circular brass plate, slightly convex, with deep depression and small hole in center, slightly flared around edge; suspended on pole; played with mallets or sticks; this part requires one 18 inches in diameter

Grosse Caisse (Bass Drum)

Tam-tam - large circular brass plate, slightly convex, suspended and played with heavy mallet; this part requires one 16 inches in diameter

Cencerro (Cowbell)

(2) Gong - large, cake-pan shaped circular plate made of brass; suspended and played with heavy mallet; this part requires one 24 to 36 inches in diameter

Tam-tam - this part requires one 30 to 36 inches in diameter and one 16 inches in diameter

(3) Bongos

Caisse Roulante (Tenor Drum) - cylindrical shell (ca. 12 by 15 inches) with two heads; played with sticks or mallets

Grosse Caisse (Bass Drum) - this part requires one medium and one large size

(4) *Tambour Militaire* (Military Drum) - cylindrical shell (ca. 12 by 15 inches) with two heads and gut strands (snares) strung across bottom head; played with wooden sticks

Caisse Roulante (Tenor Drum)

(5) *Sirene Claire* (High Siren) - round drum with crank and protruding funnel; sound produced by turning crank, thereby interrupting current of air by perforated disk mounted within drum

Tambour a corde (Lion's Roar, String Drum) - small wooden barrel with single head through which rosined string is drawn; sound produced by rubbing string with piece of cloth

(6) *Sirene Grave* (Low Siren)

Fouet (Slapstick) - paddle of hard wood fastened by spring to another paddle; sound produced by bringing paddles sharply together

Guiro (Guiro)

(7) *Blocs Chinois* (Wood Blocks) - rectangular piece of hard wood with hallowed slits near playing surface; played with sticks; this part requires high, medium and low pitches

Claves

Triangle - round metal rod bent in shape of triangle, open at one angle; played with small metal beater

(8) *Caisse Claire* (Snare Drum) - cylindrical shell (ca. 6 1/2 by 14 inches) with two heads and gut or wire snares strung across bottom head; played with wooden sticks

Maracas (Maracas)

(9) *Tarole* (Snare Drum) - cylindrical shell (ca. 3 by 14 inches) with two heads and gut or wire snares strung across the bottom head; played with wooden sticks

Caisse Claire (Snare Drum)

Cymbale Suspendue (Suspended Cymbal) - circular brass plate, slightly convex, with deep depression and small hole in center; suspended on pole; played with mallets or sticks; this part requires one 18 inches in diameter

(10) *Grelots* (Sleigh Bells) - numerous round metal bells enclosing unsuspended bit of metal are attached to leather straps tacked to handle; sound produced by shaking or striking

Cymbales (Cymbals) - see *Cymbale Suspendue, supra;* this part requires that two cymbals have handles attached and be struck together

Cloches (Tubular Chimes) - cylindrical brass tubes of varying lengths hung on rack; pitched chromatically c^1 to f^2; played with leather mallet

(11) *Guiro* (Guiro)

Castagnettes (Castanets) - small spoon-shaped shells of hard wood are attached in pairs to paddle; sound produced by shaking

Glockenspiel a Clavier (Celesta) - small upright piano-like instruments; sound produced by striking steel bars with hammers connected to keyboard

(12) *Tambour de Basque* (Tambourine) - shallow cylindrical shell with pairs of small jingles suspended in slits in shell; one side covered with head; sound produced by shaking or striking head

Enclumes (Anvils) - large steel bar or iron pipe; played with metal mallets or hammer; this part requires a high and low pitch

Tam-tam (Tam-tam) - this part requires one 36 inches in diameter

(13) *Fouet* (Slapstick)

Triangle

Grelots (Sleigh Bells)

Piano

TABLE 2

VARÈSE'S USE OF PERCUSSION
PRIOR TO IONISATION

Title	Medium	No. of Percussionists	Percussion Instruments employed
Ameriques (1920-21	Orchestra	10	Snare Drum, 2 Bass Drs, String Dr; Hand Cymbals, Suspended Cym, Gong, Sleigh Bells, Triangle, Tambourine; Castanets, Rattle, Slapstick; Celesta, Chimes, Glockenspiel, Xylophone; Siren
Offrandes (1921)	Soprano & Chamber Orchestra	8	Sn. Dr, Bass Dr; Hand Cym, 2 Gongs, Triangle, Tambourine; Castanets
Hyperprism (1922)	Winds & Percussion	16	Sn. Dr, Indian Dr, Bass Dr; String Dr; Tambourine, Hand Cym, 2 Sus. Cym, Gong, Anvil, Triangle, Sleigh Bells; 2 Rattles, Slapstick, 2 Wood Blocks; Siren
Intégrales (1924)	Wind & Percussion	4	Sn. Dr, Tenor Dr, Bass Dr, String Dr; Tambourine, 2 Sus. Cym, Hand Cym, Sleigh Bells, 2 Gongs, Triangle, Chains; 3 Wood Blocks, Castanets, Slapstick
Arcana (1925-27)	Orchestra	12	6 Timpani, 2 Sn. Drs, 2 Bass Drs, String Dr; 3 Tambourines, 2 Hand Cym, Sus. Cym, Gong, 2 Tam-Tams, 4 Triangles; 4 Wood Blocks, 2 Guiros, Slapstick, 2 Coconut Shells, Rattle; Chimes, Glockenspiel, Xylophone

Source: All of the scores listed above are published by Franco Colombo, Inc., 16 West 61st. Street, New York, New York 10023.

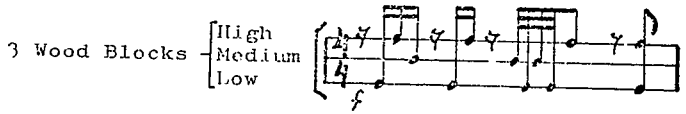
In instrumentation Varese seems determined to avoid standard instruments, seeking instead for the new and unusual. The standard timpani are conspicuously absent, but five sizes and types of drums with snares, three sizes of bass drums, and eight different cymbals and

gongs are required.[3] Although the siren, anvil, sleigh bells, and string drum had been previously employed by Varese, they were not yet standard instruments and so must still be regarded as innovative for the period.

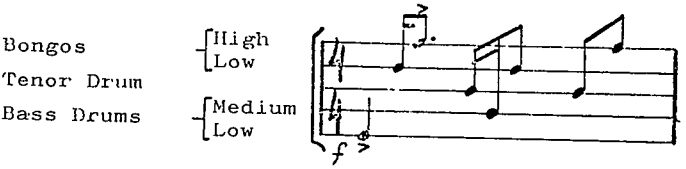
In addition to employing pairs of instruments in their natural combination (e.g., bongos, maracas), Varese creates sets by combining instruments which are customarily used singly (Example 10).

Example 10. Ionisation.

(a) p. 21, meas. 1



(b) p. 24, meas. 2



The performance instructions in *Ionisation* are quite comprehensive. Those instruments which the composer apparently believed might be unfamiliar are described: bongos, string drum, *tarole*, sirens, guiro, claves, maracas, cowbell.[4] Varese was particularly concerned with the sounds of certain instruments, and gave often detailed instructions regarding choice of sticks, sizes and types of instruments, and performance techniques. The following excerpts are samplings of his instructions in these areas:

Use, according to indications, the different kettledrum sticks: (skin ordinary), wooden, felt, or sponge. For tarole, military-drum, snare-drum, or tenor drum, where the notation $\frac{l}{x}$ occurs, play on the rim.

Footnote: Use Chinese Blocks (or the equivalent Wood Blocks) of 3 different pitches. Do *not* use Temple Blocks.

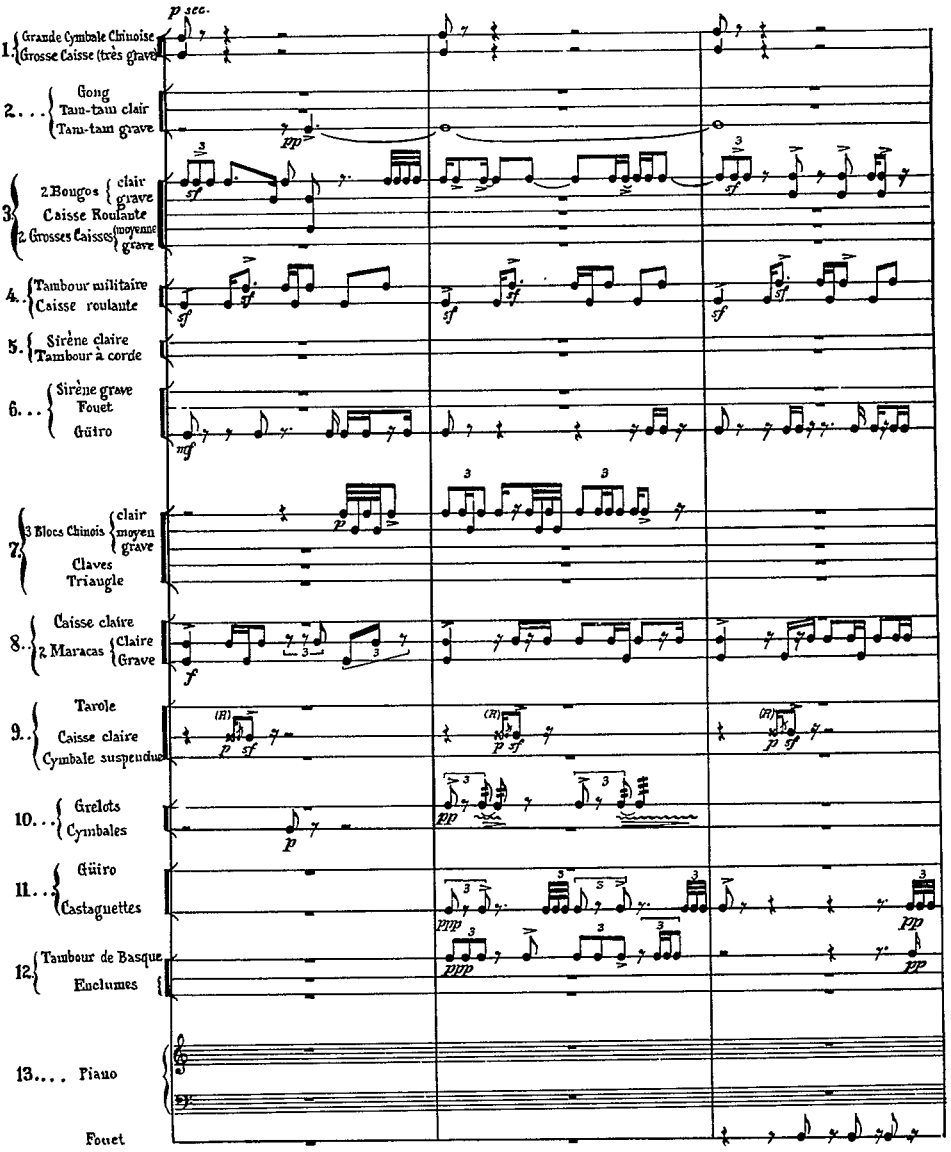
Sirens: Sterling Type H (Part No. 73 PU. PB.), operated by hand, with a button for instantaneous stopping, (thumb brake). If unobtainable, substitute Theremin's electric instruments, or any similar instruments (see special score). Mouth sirens not to be used.

When playing the tam-tam give very elastic strokes; even in the *ff* the combined weight of arm and stick are sufficient--do not kill the tone.[5]

The timbre of those instruments employed in *Ionisation* runs the gamut from high to low. Varese employs nearly every conceivable sound which the instruments are capable of producing.

The short non-pitched sounds are prevalently produced by membraned and wooden instruments. These timbres appear almost con-

Example II. *Ionisation*, p. 12, meas. 1-3.

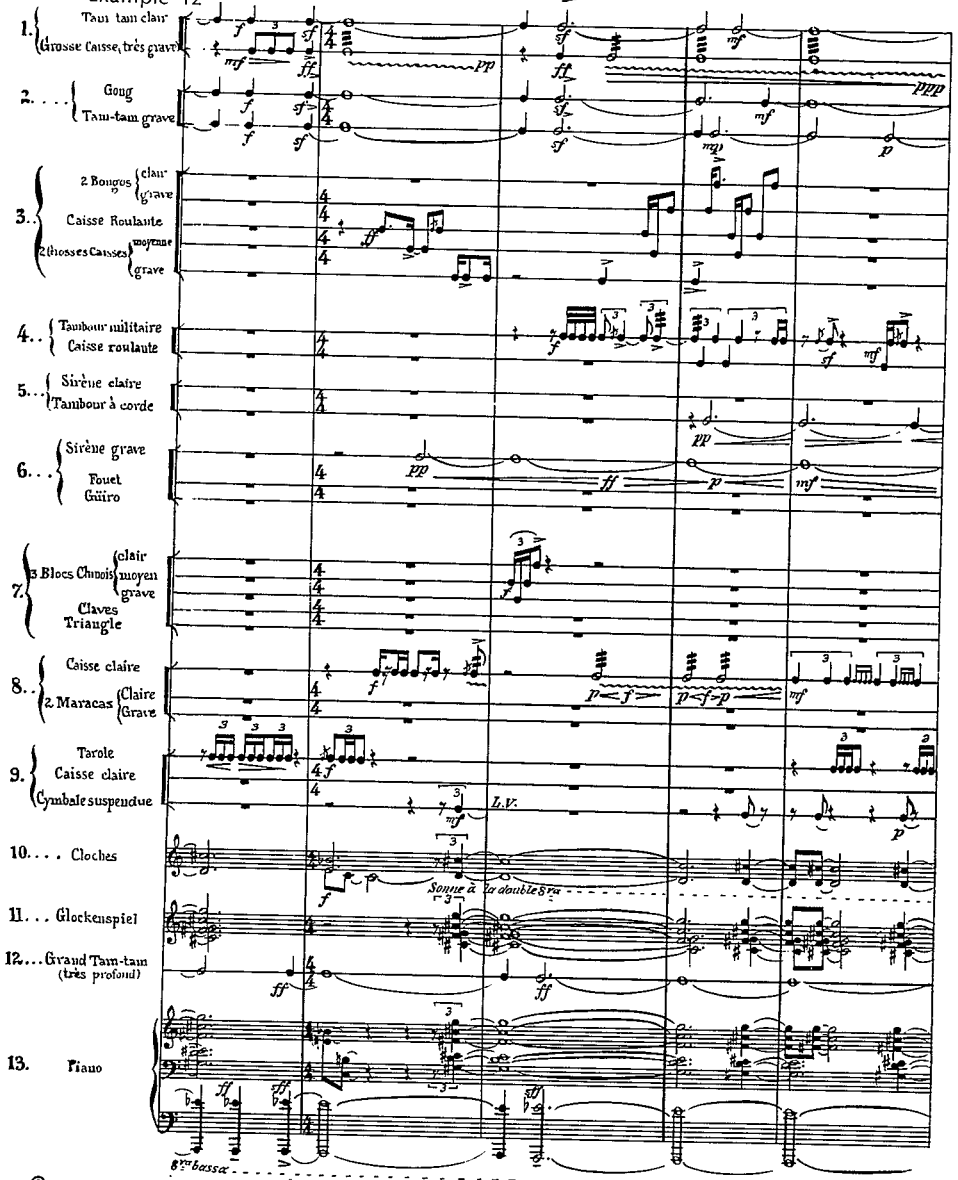


stantly throughout the work in various degrees of importance; they appear to be least prominent in the non-metrical passages and most-so in the metrical ones. In the following metrical passage in tutti style (Example 11), membraned sounds (part 1, 3, 4, 9) and wooden sounds (parts 6, 7, 8, 11, 13) are normally short durations; these are combined with short and long metallic timbres (parts 1, 2, 10, 12). Particular attention should be given to parts 1 and 10, which illustrate that the hand and suspended cymbals are occasionally required to produce

short, secco timbres. The tambourine (part 12) is treated here as a metallic instrument; when soft dynamics are required, only the tinkling jingles are heard.

Sostenuto or its illusion are produced on most of the non-pitched metallic instruments, on certain membraned instruments, and on all of the pitched instruments. Ringing sounds are used only sporadically; sostenuto timbres are found predominantly in non-metrical passages, though they appear sporadically in metrical ones (Example 11, part 2). The following Example 12 serves to demonstrate sostenuto as it is

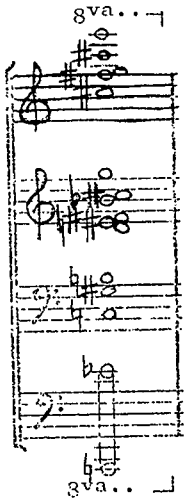
Example 12



commonly employed in *Ionisation.* Cymbals and gongs have a natural tendency to ring, and Varese takes full advantage of this characteristic (parts 1, 2, 9, 12). In addition, the composer occasionally requires a sostenuto effect on suspended cymbals by sustaining the sound through the use of tremolo (see Example 14, p. 31, part 9). The illusion of sostenuto is also produced by tremolo on the single large bass drum and on the military and snare drums, and by continuously rubbing on the cord of the lion's roar (Example 12, parts 1, 4, 5, 8). Excepting the bass drum and lion's roar, sostenuto is not produced on drums without snares. The ringing effect produced by the two sirens is a parabolic curve of pitch (part 5). The pitch rises as the crank is revolved, causing the perforated disk to move increasingly faster; the pitch lowers as the disk slowly decreases in speed when the crank is no longer turned. Sostenuto is the only sound produced by the pitched instruments (parts 10, 11, 13).

Nowhere in *Ionisation* does Varese show a concern for melody or for harmonic progression. The sets of non-pitched instruments are used for rhythm, timbre, and range rather than for pitch. The pitched piano, chimes, and celesta are used exclusively in the final seventeen measures and are exploited for their range, their ringing sounds, and their ability to produce clusters of sound. The preceding Example 12 (parts 10, 11, 13) shows their parts as notated. All of the chromatic degrees included between the two written notes are to be played simultaneously when note heads are connected by a single heavy line or by two vertical lines. A condensation suggesting the pitched tones which are actually sounding throughout most of the final passage is presented in Example 13.

Example 13. Combination of pitches sounding in Example 12, parts 10, 11, 13.



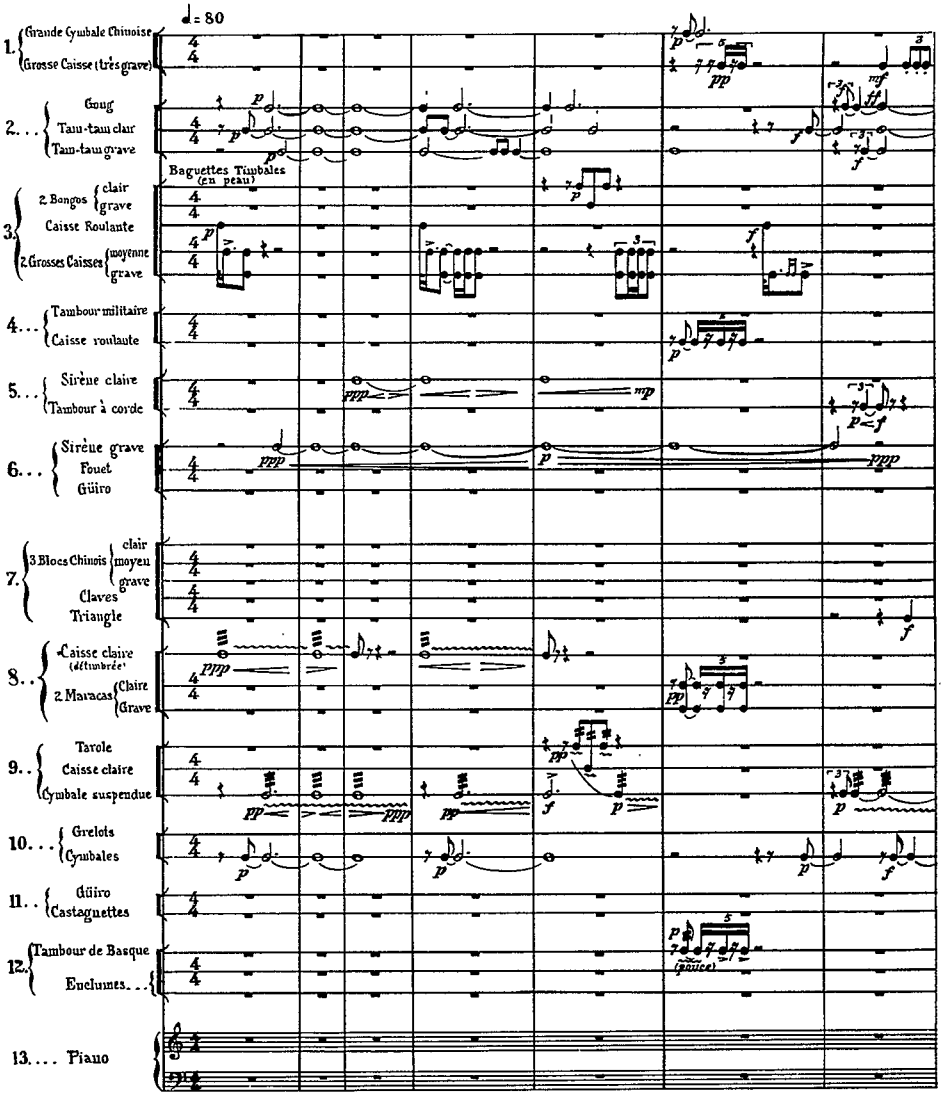
In Example 12, Varese combines three types of sound. A wide range of ringing and sustained timbres, each timbre a plane of definite or indefinite pitch, is produced by the reverberations of gongs and cymbal, the rumbling of bass drum, the crisp rattle of snare drum, the continuous roaring of lion's roar, and the massive cluster of pitched instruments. This sound-mass of invariable-pitched timbres is traversed by the rising and falling moan of siren and sprinkled with a range of short membraned and wooden timbres represented by the mellow "bomp" of bongos, tenor drums, and bass drums, the crisp "scht" of military and snare drum, and the short "tok" of wood blocks.

In summary, all of the thirteen performers are required to play more than a single instrument; several of the players use sets of instruments which are graduated in pitch and have similar timbres. The number of instruments and the several types of mallets and sticks insure a wide range of timbres, all of which are carefully controlled by the composer through the use of performance directions. Generally the staccatos, which are almost constantly present, are produced on membraned, wooden, and certain kinds of metallic instruments. Generally the ringing sounds are produced by metallic and pitched instruments, though not invariably. Both pitched and non-pitched instruments are exploited for their contribution to range, timbre, and rhythm rather than for pitch. Varese appears not to be as interested in contrasting timbres as he is in obtaining homogenious mixtures of metal, membrane, wood, and wind. Generally, contrasts are achieved through rhythmic duration: long, ringing timbres are interspersed or alternated with passages of short, secco timbres.

Ionisation has been referred to as "perhaps the greatest rhythmic inspiration ever materialized."[6] Though notated in 4/4, the work begins with a non-metrical tutti passage consisting of the combination of long and short timbres. The ringing metallic sounds of the hand cymbals and the range of gongs produce sostenuto; its illusion is produced by the rising and falling pitches of the two sirens and the tremolos of a snare drum and suspended cymbal (Example 14). Only the briefest bits of rhythm accompany at random. The style, lacking in beat progression, characterized by various kinds of rhythmic or tonal activity which avoids the regularity of meter, is ametrical. This style conveys the attributes traditionally associated with recitative, and will be so designated in ensuing analysis. Here Varese has created a musical form more abstract than the fixed dance patterns that mark the rhythms of Roldan's *Ritmica.*

The brief recitative opening is followed by a concertino passage in which a rhythmic theme is presented. This theme, though notated in regular measures of 4/4, is decidedly irregular in meter; marcato accents convey an ongoing but irregular meter. The following Example 15 illustrates Varese's notation (a) and its conversion into durations showing the highly irregular meter as it would probably sound when

Example 14. *Ionisation*, p. 8, meas. 1-7.

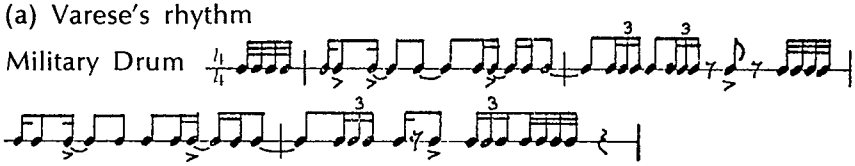


played on the military drum, whose crisp staccato sound normally does not sustain through longer notations (b).

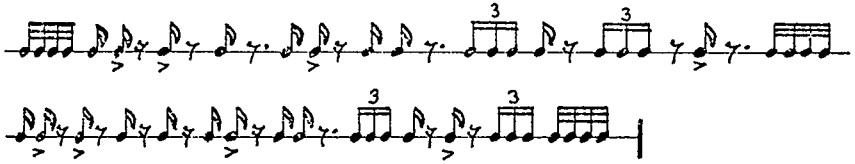
The irregular meter of the theme is combined with other rhythms decidedly more regular. The combination of low bass drum, high bongos, maracas, slapstick, and hand cymbals play an apparently diverse set of rhythmic patterns (Example 16a). However, it is possible to condense these varied patterns to show a quite regular meter, not in Varese's 4/4 but in a mixed meter of 3/4 and 2/4 (Example 16b). The mixed meter in the bongos combines with the effect of a regular procession of quarter-note beats in the other instruments.

Example 15. *Ionisation*, p. 9, meas. 1-5.

(a) Varese's rhythm

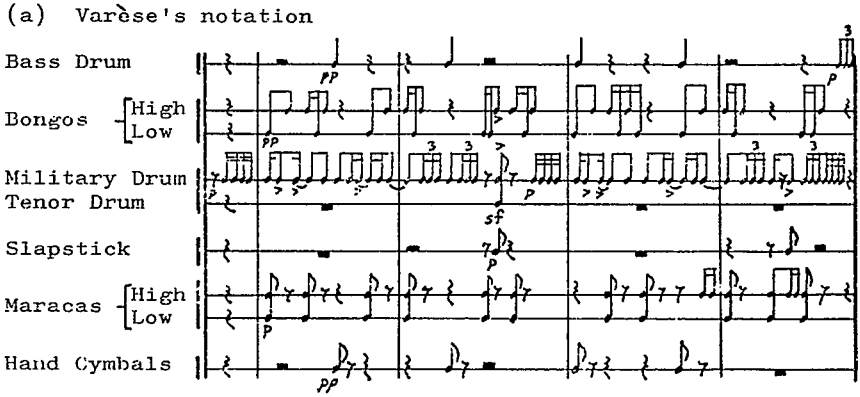


(b) Actual rhythm

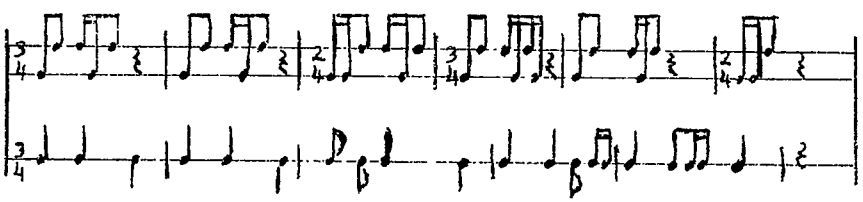


Example 16. *Ionisation*, p. 9, meas. 2-5.

(a) Varèse's notation



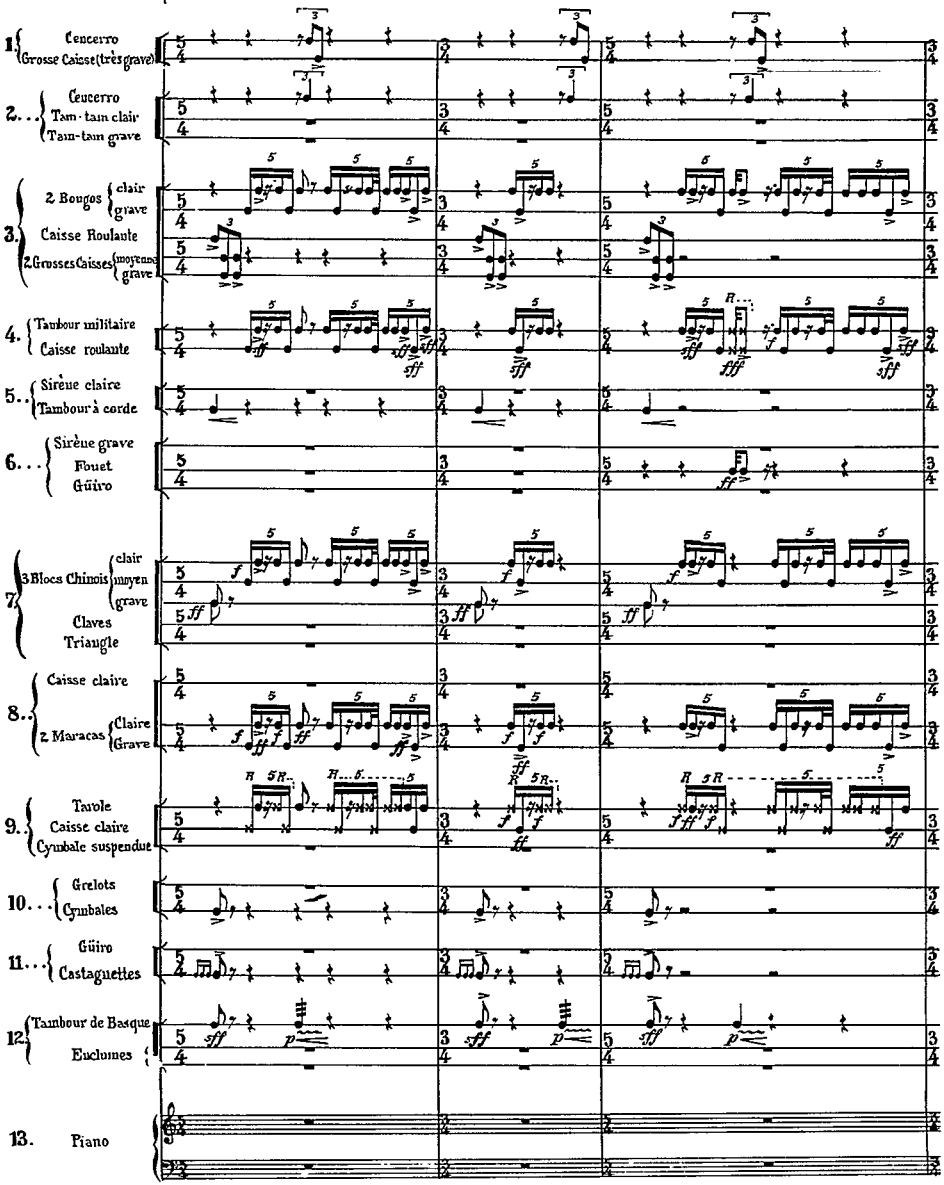
(b) Condensation showing actual rhythm



The rhythms shown in Examples 15 and 16 suggest that a diverse overall meter might result from their simultaneous execution. In ensemble, however, the rhythms convey a definite sense of metrical movement. Indeed, the regularity of quarter-note movement flourishes throughout the work even through occasional measures of 3/4 and 5/4. It is interrupted only sporadically by a single pause, by moments of recitative, and by measures of 3/8, 5/8, and 2/4+3/8.

The pattern shown in Example 15 constitutes a rhythmic theme in

Example 17



the most literal sense. Throughout the work the pattern is subject to almost continuous use, developed by fragmentation, augmentation, and variation and occasionally restated in full and in part. Thematic manipulation is only briefly interrupted by passages involving marcato rhythms grouped in threes and fives (Example 17).

The passages described above convey certain features basic to the style of *Ionisation*. The opening quasi-recitative in tutti style contrasts with the following metrical passage combining irregular, regular, and mixed meters in concertino style. Continual thematic treatment in combination with various rhythms having short and long duration is occasionally alleviated by moments of marcato rhythm. The alternation of metrical and non-metrical passages, the combination of regular, irregular, and mixed meter, and various contrasts of concertino and tutti underlie the entire work.

Probably no other percussion music composed during the period 1930-45 compelled the immediate attention of *Ionisation*. it is generally considered to be a classic in percussion literature. Varese did not compose another percussion ensemble. His next work, *Ecuatorial* (1933-34) combined brass and percussion instruments, piano, and organ with two electronic instruments constructed to Varese's specifications by Leon Theremin.[7] During the next quarter-century Varese continued his search for new sounds in the electronic medium. His major accomplishments in the area of electronic tape, *Deserts* (1951-54) for winds, percussion, and two magnetic tapes and *Poem Electronique* (1957-58) for magnetic tapes, contain many of the timbres obtained by the use of conventional instruments in Varese's earlier works.

[1]Cunther Schuller, "Conversation with Varese," *Perspectives of New Music*, III, No. 2 (Spring-Summer, 1965), 35. Varese is referring to the group of works he completed early in his career, prior to his arrival in the United States in 1915. They were lost or destroyed in a fire in Berlin earlier the same year. Fernand Ouellette, *Edgard Varese* (Montreal: Editions Seghers, 1966), p. 255.

[2]Chou Wen-chung, "Varese," Current *Musicology* (Spring, 1966), p. 172.

[3]Strictly speaking, a gong is tuned to a certain pitch while a tam-tam is tuned to a certain sound-character. During this century the two terms have often been used synonymously, though wrongly so. Hereafter, unless the composer makes a definite distinction, the term *gong* will refer to the tam-tam as well, and should be interpreted as a non-pitched instrument.

[4]Edgar Varese, *Ionisation* (New York: Franco Colombo, Inc., 1934), p. 3.

[5]*Ibid.*

[6]Curt Sachs, *Rhythm and Tempo* (New York: W. W. Norton, 1953), p. 363.

[7]Chou, "Varese," p. 173.

AFRICAN PERCUSSION MUSIC

by Michael W. Udow

Editors Note:

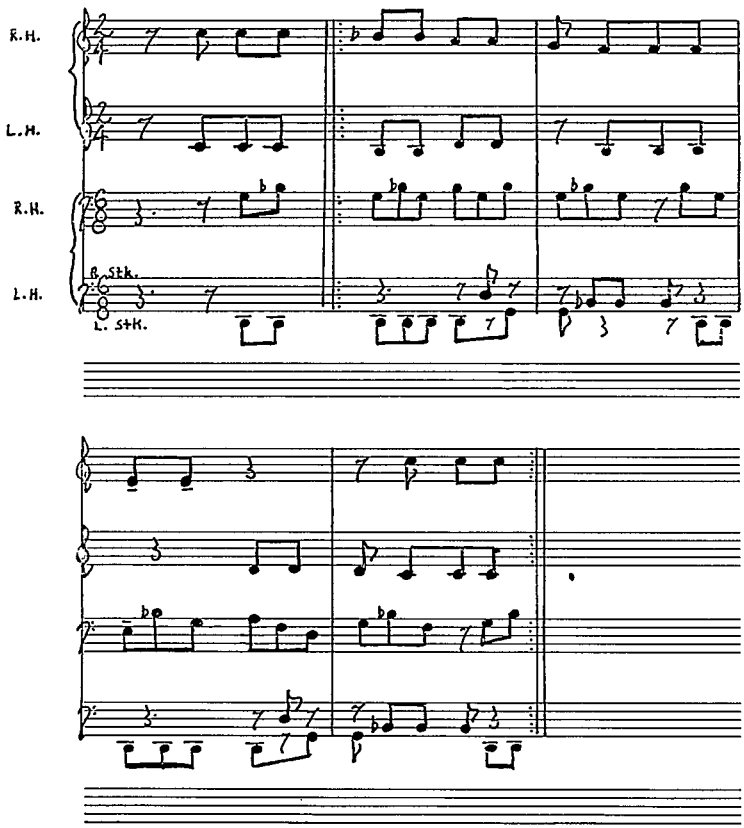
A complete copy of this article which includes a general introduction and an extensive dictionary of African Percussion instruments can be purchased from Mr. Michael Udow. 3419 1/2 Carondelet
New Orleans, La. 70115

There are many types and designs of leg rattles, shaken idiophones, but I believe they can be divided into three major types. 1). rattles made from animals, 2). rattles made from cocoons, 3). rattles made from dired fruit. The most common leg rattles seem to be made from the dried fruit variety, and cocoons. However, the Bushman have ankle-rattles made from the ears of springbok.[1] The women of the Bushmen tribe make these rattles by taking ears of the springbok and sewing them together, leaving a hole to add tiny pieces of ostrich-egg shells before closing. After several of these rattles are made, they are strung together and tied to the dancers' legs. The cocoon rattles are found throughout Africa. They are filled with either pebbles, egg-shells, or seeds. Many cocoons are strung together and then tied around the dancer's legs. I have seen pictures of these rattles of the Chwana and Bushman, Pedi, and Zulu with as many as 50 cocoon rattles to a strand. A small amount of mathematics reveals:
50 cocoons per leg: 2 legs X 50 cocoons = 100 cocoons.
10 dancers X 100 cocoons = 1,000 cocoons. This can make quite a bit of sound and must be an intrinsic portion of the rhythmic drive of the dance and the music.

The xylophones of Africa generally are constructed of three basic sections. Two long cross beams act as the supports of the bars. These are generally made of banana tree branches which give a resilience to the instrumental structure which makes it easier to be played while standing. The bars are made of hard wood native to the area in which the instrument is built. It seems to be of the hardness of rosewood. The bars are elaborately decorated, each bar with a distinctive design. I have not been able to obtain enough information on this area of my studies, however, after seeing pictures of these instruments I would hypothesize that there is a specific design pattern for each pitch. Diamond patterns for one pitch, circular patterns for another, and interwoven figure eights for yet another, etc. Nothing has been written on this subject, at least to my knowledge, and it seems that it may be of great significance for showing a direct correlation between art and music in African culture. The third basic part of the African

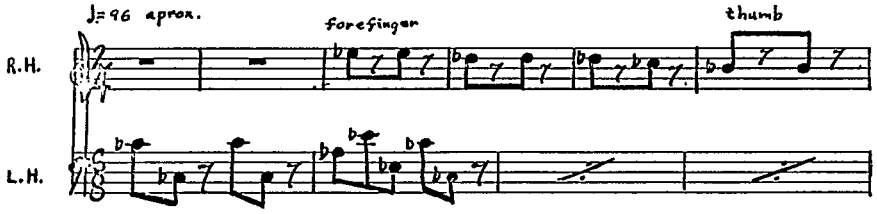
xylophones are the resonators. Not all xylophones have resonators. However, the ones that do are made out of a gourd, referred to in several books as "calabash". Each bar has its own gourd for resonance. Several varieties of the xylophones, particularly in areas which have Middle Eastern influence, the resonators have spider webs attached to them which gives a mirlaton effect. This is quite characteristic of xylophones found in Southern Rhodesia and Zululand. The sound produced is a buzzing effect. Kirby visited Vendaland and observed the ensembles of several Kings, Chief Sibasa, and Chief Takalani. The instrument's name in Vendaland is the mbila. It is struck with rubber ended sticks, and the buzzing sound is present on recordings from this area. The individual patterns for the players are not difficult, but the combined ensemble makes the pieces sound extremely complex and they are. Below is a tune which Kirby took down after having each player play his individual part separately.[2] This is the opening piece for Chief Sibasa's krall (group).

2 mbilas' tunes: for chief Sibasa



The sansa is not a major instrument of South Africa but it is found in Southern Rhodesia and in Bavendaland.[3] Both instruments in these two countries have the same name, deze. In the Bavendaland it is played by the Lemba, who happen to be iron workers. This seems to be the major reason why the sansa is not as widespread in the south as in the north where metal is relied upon quite a bit more. The use of a resonator is generally characteristic with all sansa culture areas. The metal tounges are often mounted on a wooden box and then placed upon or inside the calabash for resonance. The playing technique is much different than that of the xylophone which is a struck idiophone. The sansa is a plucked idiophone and usually always played in a sitting position. I have also never come across ensemble groups of sansa players as is quite the opposite case with the xylophone. Despite these differences, the music produced by one sansa player is just as complex as two xylophone players. This occurs because the sansa player often plays a 2/4 figure in the right hand while playing a 6/8 figure in the left. Below is a typical figure of a Venda deze tune.[4]

Sansa.



It is interesting to note that the triple meter part in both the xylophone and sansa parts are in the bass range of the instrument or left hand, and that the dupal metered parts are in the soprano part of the right hand in the case of the sansa. In all of the examples I have listened to this has been the case. I think this again could be of great importance in future studies on this subject. In several films and pictures of the xylophones of Northern Africa, I have seen a player use a larger mallet in his left hand than that of his right hand. This would fit in nicely with the idea of the left hand playing the bass notes and a larger softer mallet would give a more mellow tone in the lower register. The right hand playing the soprano bars often uses a harder mallet to bring out the tone of these notes. This is not of common practice in Western mallet playing technique; possibly due to the approach we take to the instrument and the present repertoire for the keyboard percussion instruments. As I have stated before, the African xylophonists often play with a duality type of approach in that their right hand is in one meter and their left hand is in another meter, duple and triple respectfully. This independence is accentuated by the use of contrasting mallets. However, in Western percussion we con-

sider a keyboard percussion instrument as a unified instrument and the technique which is strived for is to have a unified balance among all notes of a given instrument. This is done by tempered tuning and also choosing the mallets which will produce the best all-around sound for the entire range of the instrument because both the left and right hands play equally in all registers. If we draw on the existing repertoire there are many examples which have runs from the low to the high registers and back down again. The second movement of the Creston or the Kurka, Basta, or Milhaud. The goal is then to find a pair of mallets which sound the "least bad" in all registers. Just as the tempered scale is an adjustment to find the "least bad" tuning for all keys. A possible suggestion for composers who wish to add to the existing repertoire would be works in which there is complete separation between the left and right hands, it would only be a minute step to add specific mallets for each hand. This is of common practice in the repertiore of the 20th century solo percussionist. *ie.* William Kraft's *Suite for Solo Percussion, Concerto for Solo Percussion and String Quartet* by Michael Udow.

The largest variety of percussion instruments of Africa are the membranophones. However, certain areas have very limited use of drums, the Xhosa for example. However, when one looks at the overall distribution of instruments in Africa it is easily recognized that there are vast amounts and styles of membranophones.

In this report I will deal with the drums of Ghana, specifically of the Akan Communities. However, I plan to extend this paper in future years to include other tribes and language groups as well as several cults which use quite different membranophones, bells and rattles than are found in the Akan Communities of Ghana. The log drums which are found all along the Congo River for message sending and signaling, and the log drums found several hundreds of miles away from the Congo River for signaling only are not found in the Akan communities of Ghana as part of the public or private instruments. By the very nature that log drums are not membranophones, the construction of these two types of instruments are quite different. The hourglass drums are membranophones, however, due to the technique and construction of the drums themselves and the way in which the skins are fastened to the drums results in two quite distinct classes of membranophones in design as well as the actual sound, and the technique in which that sound is produced. For example, (please refer to the dictionary section), Mukonzi, Mukupila, and Atumpan. Ghana has many many types of membranophones particularly of the tubular nature.

One book which I have found to be an invaluable source in my research is called *Drumming in the Akan Communities of Ghana* by J. H. Nketia. This is the first of what will be a trilogy dealing with various aspects of the music of Ghana. The future books will consider the role

of the drums in the culture. This book deals primarily with the building and playing of the Akan drums. It is important to note that in Ghana the drums are the major portion of the indigenous musical instrumental types. However, there have been and are several string, wind, and piano types of instruments. One important aspect is that the drums have survived throughout the ages where as several of the other types of instruments have undergone widespread changes. The Akan harp, seperewa, is now quite rare as the Western guitar has become so widespread throughout Ghana, but the drums remain an integral part of the communities.[5] The drums are owned by the community at large, a shrine, or by the chief. The two basic types of the most common drums are open and closed drums. The closed drums are believed to have been introduced by the north, as these drums are of greater abundance in Northern Ghana than in Southern Ghana, and the craftsmanship is on a much higher level with the open drums than that of the closed drums.[6] Another distinct difference among these two types of drums is that twine and skin ropes are used in conjunction with the closed drums whereas the open drums are tied with bush rope. This indicates that the drums of the Ashanti are made with the older type of rope construction while the Dagomba drum makers use modern products in the construction of their drums. The open drums are of far greater number in Ghana than the closed drums which may show that they are much more established in the communities of Ghana. The open drums use very hard wood called twenebao or tweneduro. The tree is held in high regard by the community and in the old days the people used to sacrifice an egg and prayers were evoked asking forgiveness to the spirit before the tree was cut down to build the drum.[7] Even after the drum is finished, performers often begin performances with invocations to the spirit of the wood of the tree and invocations to past drummers who have played the drum. One such piece says:

Wood of the drum, Tweneboa Akwa,
Wood of the drum, Tweneboa Kodua,
Wood of the drum, Kodua Tweneduro,
Cedar wood, if you have been away,
I am calling you; they say come.
I am learning, let me succeed.

This is quite similar to the dance with the use of masks. The person wearing the mask is no longer that person, but rather the mask itself. The person is transformed into the mask.

Several drums can be made from one felled tree and the drum carver often builds a small hut next to the tree and builds the drums right on the spot. The carver has many factors to consider as there are many different types of drum sounds: high, low, and medium as well as dull, bright, and intermediate. It is possible to combine any of the above two groups and have a drum of that distinction. The shape of

the drum is also considered before actual construction begins. Certain drum sounds go with certain functions within the community, therefore it is up to the drum maker to be sure to make a bottle-shaped drum if it will be the talking drum, Aqmpan. In the Ewe tribes, master drummers often strike the shell of the drum so this must also be carefully inspected by the drum maker. When the shell has been roughly carved out, holes are bored into the drum approx. 1/5 of the total length of the drum from the top. These will serve as sockets of the pegs which act as a tension device for the membrane. Generally speaking, there are 7 sockets, but on the smaller drums only 5 sockets may be found. Most of the drums have elaborate designs on the exterior and the design begins just below the sockets. Each drum type has specific design patterns which is one of the reasons I believe that the xylophone bar design patterns may be of specific value in determining the pitch and range of a given bar. As in the homage played to the tree before the drummer begins, the performer then addresses the pegs, the membrane and the sticks. These are the basic factors which go into the construction and design of the open drums.

Examples of the closed drums are the mpintintoa, and the donno (hourglass drum). The osekye, gyamadudu, and the sanga are also closed drums. All of the above drums except for the mpintintoa are double headed drums. The mpintintoa is made from a large gourd with the top cut off to expose approximately 10 in. A skin is then stretched over it and strings are fastened from the head to a metal ring at the base of the base of the gourd. As the head dries it becomes tight and is ready for playing. I find the dono drums the most interesting and the most enjoyable to play, of course this is a Western percussionist's point of view without the immediate cultural background that an African drummèr would have. The donno drums are made in various sizes just like the other drums, therefore many different ranges of pitch are available to a performer. The playing technique is arm-pit and hand. By varying the tension of the arm, the strings are either loosened or become taut which in turn loosens or tightens the head, lowering or raising the pitch of the drum. The Gyamadudu, osekye, and the sanga are of bass drum types. They are equivalent to the Western bass drum, tenor drum, and tom-tom respectively. An important factor which distinguishes the drums of Ghana with the drums of the Yoruba, Hausa, or drums of Guinea, or the Ivory Coast is that there are no seeds, shells, or mirliton devices placed on the inside of the drums for added rhythmic or sympathetic vibration purposes. It should also be noted that the donno is not the talking drum of the Ghana area, but is the talking drum of the Yoruba. Therefore different drums have similar functions, and similar drums have different functions, at times.

The final decorations for all of the various types of drums, depending on the specific tribe or chief, is a covering. Some drums, the

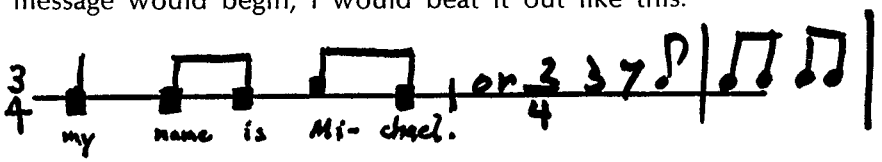
Atumpan for example, are kept in special drum huts by the chief's hut and covered with cloths of material of captured enemies clothing. Other covers are made from animal skins. I have found no information in particular to Ghana, however, in other parts of Africa, the fingers of captured enemies were put inside the drums and the hands of the enemies were draped on the outside of the drums. Animal horns can be attached to the drum too.

There are three major modes of drumming which Nketia speaks of in his book. The signal mode, the speech mode, and the dance mode of drumming. I would also add a catch all area which would include drumming for field workers, and general labor within the community. With the exception of the etwie drum which is a friction drum, all of the Akan drums are sounded by striking the heads with one of the following techniques: (please refer to appendix for more detailed list).

Hand technique: apentemma, and operenten drums.
Stick-and-hand technique: fontomfrom, gyamadudu, and asafo drums.
Stick-and armpit-control technique: donno type drums (other areas use hand-and-armpit).
Stick technique: atumpan, bommaa, akukuadwo, and etwie drums.

The atumpan, bommaa, akukuadwo, and the etwie are always played in pairs, and with the exception of the atumpan drums, both drums are played by one person. The greatest variety of pitch comes from the stick-and-armpit-control class, then the hand technique. However, in Ghana the talking drums are played with stick technique.

All of the modes of drumming and the various techniques used accentuate the patterns by the use of intensity differences, duration differences, and tone differences.[8] In Ghana, as well as all Africa, the speech mode of drumming functions on the pattern of the spoken word. Each word has a rise and a fall in the voice i flection. If I were to say "my name is Michael" which incidentally is the way in which a message would begin, I would beat it out like this:

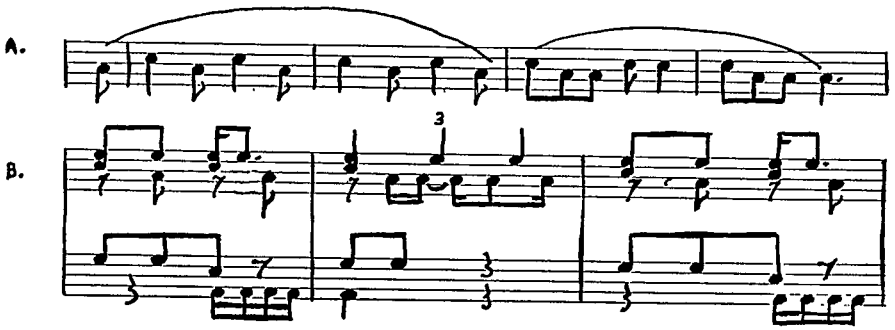


Of course this is oversimplified, but the gesture is clear. It is not based on a Morse Code system of the combination of dots and dashes equals a letter of the alphabet, but rather a system of tone inflection, intensity differences, and durations, all patterned after the human voice. The speech mode of drumming sounds like a steady flow of words, quite similar to my mother talking over the telephone. The signal mode of drumming would sound a repeated pattern over and over. And the dance mode would set up a rhythmic pattern with

specific dominant rhythms for each piece. Usually dance modes of drumming rely on many drum parts taking place at once which enables the cross-rhythms and polyrhythms to develop. Nketia has classified the rhythms into two major classes.[9]

Unilineal rhythms: speech and signal modes of drumming.
Multilineal rhythms: designed for movement.

Listed below is an example of each type of rhythmic scheme:



In the dance mode of drumming there are lesser drums as well as the master drummer. In listening to records one finds the pulse being set up by the double bell. Other instruments of this type of secondary importance would be the rattle, and clappers. There are drums which respond to the rhythms of these idiophones and they are called either agyegyewa or agyesowa. Another type of lesser drum is the ntwamu. The ntwamu drums have their own rhythms which set up syncopation, cross-rhythms, or polyrhythms with the agyegyowas. This enables the master drummer and the dancers to move in and out of various rhythmic structures and feelings. (please see appendix for labeling of the drums for the HI-LIFE). Below is a list of the names of pieces from the general category to specific events:[10]

(a). by the general name for the type of drumming and dancing, e.g. sanga, asonko, awaa.
(b). by a name indicative of its usual context, function or general character, e.g. trane (ceremonial shooting), akyea (march), topre (death victim), akyem (shields), etc.
(c). by a name commemorating the battles, e.g. Adinkra (commemorating the battles against chief Adinkra of Gyaman), Buroni bewu abansoro do (the white man will die upstairs - commemorating the siege of Kumasi fort during the British-Ashanti war of 1900).
(d). by a name indicative of the participants, e.g. asafo (the music of warrior associations), abofoo (the music of hunter's associations).

These musical styles are closely associated to dance styles of the corresponding names. I think it would be of significant value if at some point both a dancer and a musician could do joint work in combining efforts to make exact analysis of specific dance and musical styles for comparative value of the two arts.

I found it interesting that even in dance music certain patterns of not only the drums but also the gong (bell) have texts of meaningful words. Some patterns mean: "I do not find chicken as nice as rat meat." or "If you follow me, you will only get bark cloth." The above are narratives worked into folk tales and are told to the children of the tribe. These are called juvenile texts. Just as the children of the tribe are taught of the value of the dance and the technique, so too are they taught to appreciate the value and the meaning of the drum patterns through these folk tales.

The drummers are of quite high stature in the Akan communities, and unlike the Yoruba drummers, they play for the state, the community, the chief, etc., but never for self indulgence. The drummers are men except in special puberty rites where women are allowed to play. The women do play the gongs, and especially the rattles.

The master drummer must have a complete knowledge of the tribe's history including the wars, chieftancy, etc., as well as all aspects of the communities life in order to send and receive accurate drum messages. This takes years and years of training. The master drummer in training a student, must teach all of the subtle inflections of time, rhythm, flow, and pitch inflections.

Every aspect of the drums of the Akan Communities of Ghana point to a deep relationship and respect between the community at large and the drum makers and drummers. This is further transferred towards great respect to the drums themselves and to nature. There is a high degree of inner feeling that is tied up between the community, the culture, and nature itself.

DRUMMER OPON AGYEI KYENKYEKU[11]

The drummer is drumming on the talking drums.
The Creator's Drummer is playing on the talking drums.
Fair Opoku says he is about to play on the talking drums.
Let us go together: Let us return together,
And teach me the art of drumming.
Child of Dabo Kwasi Pepre, the drummer,
Fair Opoku says he is kneeling before you;
He prays you he is about to drum on the talking drums.
When he drums, let him drum smoothly and steadily, without faltering.
I am learning, let me succeed.

FOOTNOTES:

[1]Percival R. Kirby, *The Musical Instruments of the Native Races of South Africa*, p. 1.

[2]Ibid p. 54

[3]Ibid. p. 65.

[4]Ibid. p. 68.

[5]J. H. Nketia, Drumming in the Akan Communities of Ghana, p. 4.

[6]Ibid., p. 4.

[7]Ibid., p. 5.

[8]Ibid., p. 17.

[9]Ibid., 23.

[10]Ibid., p. 30.

[11]Ibid., p. 175.

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Practical Mallet Studies

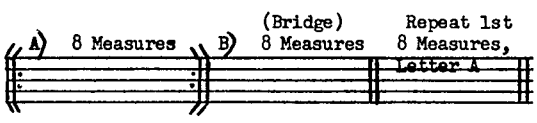
by Bob Tilles
Professor of Percussion
DePaul University

Bridges

The typical 32 bar tune consists of four 8 bar phrases known as an A B A structured tune.

In the 32 bar chorus, letter A is played 3 times and letter B (called the bridge or release) is played once.

EXAMPLE

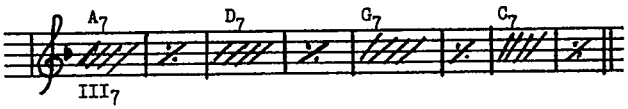


Two bridge progressions are used frequently in tunes and it is useful to analyze them and practice the progressions separately. This will help memorization of many standard and popular songs.

BRIDGE NO. I

Start on the third of the key and go up the cycle of 4ths using Dom^7 chords.

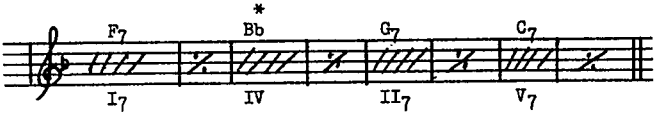
Example - F Major



BRIDGE NO. II

Start on I and build chords on I, IV, II, and V.

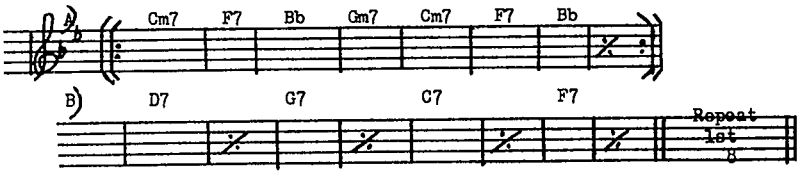
EXAMPLE - F Major



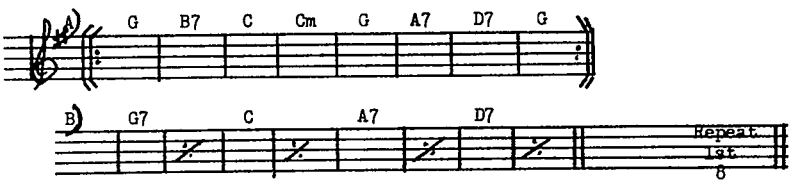
* NOTE IV chord can be major or Dom^7.

The following 32 bar progressions show examples of tunes using the two common bridges.

TUNE IN Bb USING BRIDGE NO. I



TUNE IN G USING BRIDGE NO. II



The Challenge

Music teachers as a whole are quite infamous in their ability to remain fifty 50 years behind the music of the time. When something is not understood, it is immediately criticized or brushed off as "weak", "strange", "poor", "experimental", etc. The "new" is often ignored or at times scorned, without being given a fair chance.

We tend to cling to tradition like a favorite worn out pair of shoes. Invariably teachers feel they must teach what they have been taught because it is the "tried and true" method, when in fact, it really is simply more comfortable for them to do so rather than attempt something which they do not totally understand. Very often, this situation results in ignorance breeding ignorance which culminates in inbreeding, thus retarding the growth of an art form.

Many teachers and performing musicians have been criticized for promoting unusual, experimental, or new teaching and performing concepts. This is not to mean that all such ideas be completely accepted and promoted, but should be given consideration in the evolution of the percussive arts.

We as teachers, and all musicians are teachers in one capacity or the other, must not allow our thinking and teaching to degenerate into a closed tunnel while the musical world passes us by.

It is a challenge to always maintain an open and alert mind and to continue learning as we teach. We must progress as our art demands. Tradition is wonderful if we build upon it and never become stymied in our ways of thinking and teaching because of it.

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Index to Articles in Volume IX of PERCUSSIONIST

Percussion Material Review

By Mervin Britton
Professor of Percussion
Arizona State University

ENSEMBLES:

SCHERZO For Two Percussionists, Ron Delp, $1.50; Southern Music Co.

Both parts are of equal medium difficulty for college performers. One player uses four timpani, the other three toms and a snare. Roto drums may be used in place of the three toms.

CEREMONIAL FANFARE, Walter Piston, $5; Associated Music Publishers, Inc.

Duration C. two minutes; Instrumentation includes six horns, four Bb trumpets three trombones, tuba, four timpani, tambourine, snare drum, tam tam, bass drum. Two percussionists plus a timpanist are required. The title explains the composition.

PERCUSSION FOR FIVE, Carrol M. Butts, $3.50; C. L. Barnhouse Co.

Instrumentation for this quintet is two snare drums, tenor drum, bass drum and two timpani. The style is like a series of easy eight measure marching cadences.

IMAGIND QUARTER, Sydney Hodkinson Score $5; BMI Canada Limited; 41 Valleybrook Drive; Don Mills, Ontario.

Apparently four scores are required for this quartet. Performance duration is C. 15 minutes. The composition is graphic notation with time relationships rather than regular meter. Over 102 instruments are required with duplication of instruments such as marimbas, xylophones, steel drums, vibraphones as well as smaller instruments eg. eight tambourines.

AN UNSEEN ACTION, William Duckworth; $?; Composers Autograph Publications P.O. Box 7103; Cleveland, Ohio.

The score calls for four percussionists, flute and prepared piano. With the possible exception of four tam tam and one gong (which this reviewer believes should read four gongs and one tam tam), the percussion instruments are standard and not numerous for a college percussion department. Traditional notation is used.

ELEGY IN MEMORY:

ELEGY In Memory of Maurice Ravel, David Diamond $6.75; Southern Music Publishing Co.

Duration C. eight minutes; Instrumentation includes four horns, three C trumpets, three trombones, tuba, three timps, tenor drum, glockenspiel, gong (1 percussionist) two harps.

SCHAGZEUG-TRIO, Werner Tharichen, score $9; Bote & Bock-Associated Music Pub.

Apparently three scores are required for performance. The parts are arranged for one timpanist, four kettles, and two percussionists. Percussion instruments are common for any college percussion department. Five short movements make up the composition, which uses traditional notation.

MALLETS:

CONCERTINO FOR MARIMBA AND PIANO, George Frock, $2.50; Southern Music Co.

Duration C. four minutes; with a short, easy four mallet section in the middle, this concerto is quite appropriate for high school contest, as well as solo recital performance.

SEA SOUNDS, Saul Feldstein, $.75; from Student Instrumental Course, Belwin Mills.

This piece is rated advanced intermediate for elementary school use. It requires some easy four mallet rolls, but could also be played on a vibraphone without rolls. Piano accompaniment.

FUGUE from Sonata in A Minor, Bach-Ron Delp, $1.50; Ron Delp; 845 Boylston St. Boston, Mass.

Three mallet technique is required throughout this arrangement. Occasional four mallet chords can be adapted. Manuscript is large and extremely clear in reproduction. Length and quality of the piece are worth the attention of a serious student.

TIMPANI:

WHEN JOHNNY COMES MARCHING HOME, arr. Saul Feldstein, $.75; from Student Instrumental Course; Belwin Mills.

Three kettles are necessary for this composition. When combined with like arrangements for snare drum and mallet percussion, it makes up part of a trio. Piano accompaniment.

WIND-SWEPT Saul Feldstein, $.75; same course; Belwin Mills.

Two kettles are necessary for this composition. Easy triplet and syncopation rhythms are used in changing meter of 5/4, 3/4 and 2/4 meter. Piano accompaniment.

RONDO, Mervin Britton & Ronald Lo Presti, $1.50; Byron Douglas Publications.

This 6/8 solo is appropriate as an intermediate contest solo or recital piece. Piano accompaniment.

SNARE DRUM SOLOS:

LU-LU, Arthur Cappio, $.75; HaMar Publications, Inc.

This is a rudimental solo written in 1970, rated difficult.

MIXTH SIXTH, THE, Frank Derrick III, $1; Derrick III Enterprises. P.O. Box 285; Harvey, Illinois.

This is a rudimental snare drum solo which is rated medium by the publisher.

DIDDLE DADDLE, Frank Derrick III $1; Derrick III Enterprises.

This is a rudimental solo which is rated medium by the publisher.

CHALLENGE, THE, Frank Derrick III, $1; Derrick III Enterprises.

This is a rudimental solo which is rated medium by the publisher.

The following four solos written or arranged by Saul Feldstein are rated advanced intermediate in the Student Instrumental Course of Belwin Mills. All have piano accompaniment.

NEW MILITARY, The, $.75; Easy flam taps and rolls are used in 5/4, 3/4 and 2/4 meter.

WHEN JOHNNY COMES MARCHING HOME, $.75; Students can get practice with four stroke ruffs in this arrangement.

TWO SPIRITUALS 'Swing Low . . .; He's Got the Whole World . . .), $.75.

Dotted notes and syncopation are used in this arrangement.

ONE AND TWO, $.75; A one line staff is used for each hand. Most of the rhythms are the same for both hands, but such an exercise is good for building control.

DRUM SET SOLO:

"9" Heads, Jake Jerger, $2.00; Slingerland Drum Co.

This is a collection of intermediate drum set solos using basic triplet and straight eighth note patterns. Such material may be used for study, concert, or contest.

SIWE'S TWEED, Harold Jones & Sheldon Elias, $2 Educational Ideas; 4912 North Kruger; Chicago, Ill. 60630.

This is a clean manuscript jazz waltz theme with three written variations. Each performer is encouraged to add his own variations. The solo requires at least advanced intermediate technique.

DRUM SET ENSEMBLE:

"54" HEADS, Jake Jerger, $3.50; Slinger Drum Co.

Six basic drum sets comprise the instrumentation of this unusual ensemble which is printed with score as well as parts.

SUITE FOR THREE DRUM SETS, Sheldon Elias $2; Educational Ideas.

Three short movements for three basic drum sets include Prelude, Minuet, Finale. Only the first part has a solo passage. The composition is presented without a score.

DRUM SET BOOKS:

SLINGERLAND PRESENTS COMPLETE INSTRUCTION IN DANCE DRUMMING, Jake Jerger, 70 pages; $3; Slingerland Drum Co.

While this book has a copyright of 1962, many teachers and students may like the manner in which the material is presented. The format includes work with and around the hi hat, brush beats, fill-ins and one measure breaks, two-eight measure solos, long solos, and some typical parts to a "Jump Tune."

The following books by Joel Rothman are recent releases of JR Publications.

LEFT HAND CONTROL FOR RIGHT-HANDED DRUMMERS, 45 pages, $2.50.

A series of repeated rhythms, which feature a predominance of left hand sticking comprising the material for this book.

JUST ANOTHER ROCK BOOK, 32 pages $2.50.

Exercises in this book are presented as patterns for slow rock performance.

COORDINATION PATTERNS WITH HI HAT AND BASS DRUM, 32 pages $2.

Jazz and rock independence between hi hat and bass drum are covered in the first two sections, while the snare is added in the latter two sections. Exercises are in repeated 2/4 rather than regular 4/4.

BEATS AND VARIATIONS FOR DANCE BAND DRUMMERS, 64 pages, $2.50.

There are approximately 32 pages of actual material, since the other pages are blank staves so that teachers can write in their own variations for the students. This material consists of one and two measure basic dance patterns with suggested variations.

THREE IS TO TWO AS TWO IS TO THREE, 16 pages, $2.

Organized into five sections, this material was designed for set practice of three notes on one instrument with two notes on another.

ROCK BREAKS WITH SIXTEENTH NOTE TRIPLETS, 15 pages, $2.

Material in this book covers breaks using 16th note triplets based on a straight 8th note pattern.

ROCK DRUM PARTS, BARRY LAZAROWITZ, 32 pages, $2.40; JR. Publications.

This is a collection of 16 drum parts that can be used with suggested rock tune recordings.

RECORDINGS:

FOR VIBEST ONLY, Shelly Elias, $5.95; Music Minus One; 43 West 61 St. New York, N.Y.

This recording, with printed material, presents simple explanation and progressive material for both melodic and comping performance in the blues style. Students have a chance to hear examples, and play

along within given limitations. While theory definitions are clear, concise and to the point, students without some theory background may have trouble assimilating all the material. However, anyone who can read directions can experience accomplishment with this recording. GOOD VIBE-RATIONS, Shelly Elias, $5.95; Music Minus One.

Following the same format as the previous recording, this record would best be used after FOR VIBEST ONLY. Emphasis is placed on improvising on some modern well known pop tunes that are practical for actual performance in public. These recordings are a major contribution to this area of percussion education.

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Letters to the Editor

To the Editor:

As a junior in college, I have recently been exposed to a multiple-bounce roll on the timpani. Based on my very limited experience, I found this roll to be useful in certain situations. I think the Society would benefit from, and I would certainly appreciate, any comments pro or con concerning the use of the multiple bounce timpani roll.

Thank you,

David S. Bittner
111 Lester Dr.
Beaver Falls
Pa. 15010

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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Percussive Arts Society, Inc.

PURPOSES OF THE PERCUSSIVE ARTS SOCIETY, INC. — To raise the level of musical percussion performance and teaching; to expand understanding of the needs and responsibilities of the percussion student, teacher, and performer; and to promote a greater communication between all areas of the percussion arts.

OFFICER REPRESENTATION CATEGORIES — Professional, College Education, High School, Elementary School, Private Teacher, Composer, Drum Corps, Dealer, Publisher, Manufacturer, Distributor, and Members at Large.

PUBLICATIONS — All members receive the journal PERCUSSIONIST (four issues per academic year) and the magazine PERCUSSIVE NOTES (three issues per academic year). Part of the membership dues collected from each member is allocated for a subscription to each of the publications. These publications contain articles and research studies of importance to all in the percussion field, and serve to keep all members informed of current news, trends, programs, and happenings of interest.

MEMBERSHIPS — Professional $8.00 (Percussionist)
Individual $5.00 (Music Educator: non-Percussionist)
Student $5.00 (Any full-time student at any educational level)
Library $5.00
Instrument Dealer and Publisher $25.00
Distributor/Wholesaler $150.00
Manufacturer $250.00

Note: All memberships are based on a fiscal year, September 1st through August 31st, and are automatically continued with annual billing unless cancelled by member. Please report changes of address promptly.

SPECIFIC PROJECTS UNDER STUDY — Acoustics of Percussion Instruments; Avant-garde Percussion Music; College and University Percussion Curriculum and Materials; Elementary Percussion Education; Improvement of Percussion Solo and Ensemble Contest Adjudication Standards, Procedures, and Materials; Musicology and Ethnomusicology as Relates to Percussion; Percussion Literature Improvement: Methods, Solos, Ensembles, Percussion Parts to Band, Orchestra, and Stage Band Music; Stage Band Drumming; Standardization of Terminology and Notation of Percussion Instruments.

SPECIAL NOTE TO STUDENTS — All students with an interest in percussion should take advantage of this excellent opportunity to join P.A.S., INC. Student membership in this organization along with private lessons from a fine teacher should be the goal of every aspiring percussionist.

Resolved: That a copy of each issue of "Percussionist" shall be sent to each member of the Percussive Arts Society, Inc., and that of each member's dues or enrollment fees of $5.00 or $8.00, $2.00 shall be paid for a year's subscription to the publication.

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APPLICATION FOR MEMBERSHIP

NAME_____ HOME ADDRESS_____

CITY_____ STATE_____ ZIP_____

BUSINESS ADDRESS_____

CITY_____ STATE_____ ZIP_____

OCCUPATION_____ REMITTANCE ENCLOSED_____

Send application form and remittance to:

PERCUSSIVE ARTS SOCIETY, INC.
130 Carol Drive
Terre Haute, Indiana 47805