Percussionist

An Official Publication of
PERCUSSIVE ARTS SOCIETY, INC.

VOLUME X, NUMBER 1
FALL, 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.

Percussionist *VOLUME X, NUMBER 1*
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WRITING FOR THE MARCHING BAND PERCUSSION SECTION
by Vincent K. Paxcia

About the Author:

Mr. Paxcia is assistant professor of music and director of the marching band at Butler University in Indianapolis, Indiana.

Every fall, band directors throughout the country begin to develop what they hope will be the finest marching band around. They draw up complex formations and drills, write music filled with festered fifteenths, and requisition that extra sousaphone with the school-colored bell. Then they gather the bandsmen together to rehearse and wonder why the sound they hear does not match the sound they "heard" as they arranged the piece.

The answer is very often what is in the percussion part, or, more precisely, what is not in the percussion part. It is no surprise that the best sounding bands have the most carefully worked out percussion scores. This is not to imply that marching band percussion should be complex. On the contrary, simple figures generally work best.

There is no secret to writing consistently effective percussion parts. There are, however, two guiding principles for the arranger: (1) The percussion part should fit the music in concept and style. (2) Pattern writing will result in the most precise and "together" percussion parts when a large number of tunes are being used and changed frequently.

To make the percussion part fit the style of music seems almost too obvious to mention; yet directors continue to write Basie-type tunes with obviously rudimental drum parts. Especially in good jazz and rock tunes it would be effective to think of the percussion section as a giant drum set and write patterns and "kicks" for snare drum (field drum), tom toms (timp toms and tenor drums), and cymbals. Additional traps (tambourine, maracas, claves, etc.) should be added as the style demands. The rudimental sound that is associated with drum corps work should be used for tunes that call for the more open style of performance.

The mark of a good percussion section is that the members of the section can adjust their style according to the music they play. Strict adherence to one style of playing regardless of its appropriateness should be regarded as a weakness rather than a stylistic consistency.

The harried director might well ask, "How do I write a new and inspired percussion part for every tune I arrange?" Fortunately that is not necessary or, over a long season, desirable. It is important to remember that percussionists must memorize their music. For this reason, similarities in patterns and phrasing from one piece to another are of the utmost importance. To ask a percussionist to memorize up to fourteen tunes a week borders on the inhuman. The percussionist's

job becomes much easier when only a limited number of patterns are used for all fourteen tunes and when the same patterns are used from week to week.

For many years the writer has followed the advice of some of the most well-respected arrangers in the marching band field. They simply isolate a number of patterns and employ them as the rhythmic contours of the piece change. For example, if we take  as a basic pattern in cut time and add  as a phrase ending, we can play 90% of all cut time tunes classified as "bright openers" or "up tempo." To change style or meter, it only becomes necessary to enlarge our pattern vocabulary to allow for syncopates (), triplets (), 6/8 time (), jazz waltz (), etc. Once the basic vocabulary is taught, the percussionist is ready to memorize a large amount of music in relatively little time. Pattern writing also cuts down on the mental slips that muddy up an otherwise clean percussion section.

In all patterns, flams and ruffs are kept to a minimum or omitted completely. Rolls are also used sparingly.

Pattern writing does not necessarily result in the best percussion part for a given tune. For a specialty number or a tune featuring percussion, some modifications need to be made for a more soloistic part. What pattern writing does is allow for the greatest number of tunes to sound well with a minimum amount of memorization. It is a very effective compromise.

The following is recommended to directors who would like to revitalize their percussion sections: (1) Consider the style of the piece and write a percussion part that fits. (2) Use pattern writing to improve the precision of the percussion section. (3) Avoid after beats, flams, ruffs, and rolls in most patterns. (4) Use cymbals sparingly -- their effect is inversely proportional to their use. (5) Write separate parts for timp toms and tenor drums but they need not play all the time.

It is finally recommended that the director write simple parts at first, and adjust them, if necessary, later on. Perhaps a local percussion teacher or members of the section could help develop a pattern vocabulary for most tunes. It is better to write what you know your section can play well rather than what you hope they can play at all.

RESEARCH IN PROGRESS

Mike Combs, at the University of Tennessee in Knoxville, has launched a research project which involves all PAS members. A questionnaire, with a stamped envelope for return, has been sent to all members. The questionnaire is short and easy to complete. The results will be printed in one of the PAS publiications and should be most helpful in guiding young percussion students who are considering some area of percussion as a career.

If you have not received a questionnaire, please drop Mike Combs a note at the University of Tennessee, Knoxville 37916. If you have received a questionnaire but have not returned it, please do so at your earliest convenience.

AVANT GARDE PERCUSSION
by Stuart Smith

About the Author:

Mr. Smith is Instructor of Percussion at Hartt College of Music in Hartford Conn. He has performed in the Hartford, New Haven, and Bridgeport Orchestras.

Mr. Smith is currently performing and composing for W. Inc. M., a group devoted to performing New Music, and his compositions are published by Media Press and SeeSaw Music Corp.

I perform and write for W(inc.)M (World Incorporated Music). We perform many chamber music programs in the greater New England area. We find that a thorough knowledge of pieces for unspecified instrumentation is indispensable in programming our concerts. This type of piece specifies form, content, and/or procedures to arrive at form and content, but not the specific instrumentation that actually plays the music.

Pieces for unspecified instrumentation are useful when planning a program for a combination of instruments that have a limited repertoire written for them, i.e. percussion and saxophone, or percussion and tuba. These pieces are also very helpful as a teaching aid. A thorough knowledge of them will help the percussion student build a solid technique of interpreting new notation. They also make the performer more sensitive as a musician because they force him to make musical choices; for example, what instruments to use, when to play material, when not to play material, etc. Most importantly, these pieces provide a valuable addition to percussion ensemble literature. By not specifying instruments, the performer may use the same instrument setup for more than one piece, keeping setup changes at a minimum.

The unspecified instrumentation pieces fall into these main categories:

1) All the material is thorough-composed. The performer chooses the instrument and in some cases he chooses the order of the material to be performed. Example, *Dimensions II*, by Edward Diemente, See Saw Press.

2) A graphic approach; that is, the performer plays what he sees. Example, *Interiors*, Robert Moran, C. F. Peters.

3) The basic form is given. Coordination of the players parts and general directions for the parameters of range and dynamics are explicit. The performer fills in the content (specific sounds) that fulfills these coordinations and general directions. Example, *In Between Pieces*, Christian Wolf, C.F. Peters.

4) Materials such as transparent sheets, graphic drawings, and special rulers are provided. The performer makes his own part from the materials and general directions for chance operations. Example, *Fontana Mix*, John Cage, C.F. Peters.

5) Any or all of the already mentioned types may be combined. Example, *Solo for a Melody-Instrument*, Karlheinz Stockhausen, Universal Edition.

Other Unspecified Instrumentation Pieces

(This list only includes pieces I have tried and found rewarding. It is by no means a complete list.)

Dimensions I
Dimensions II Edward Diemente SeeSaw Music
IIIysII Edward Diemente manuscript

Pairs
for 5 or 10 players
Septet
In between Pieces
for 1, 2, or 3 players Christian Wolf C.F. Peters

Fontana Mix
Variations I, II, III, IV John Cage C.F. Peters

Quartet Variations: Edward Miller manuscript

Towers: David Cope Media Press

Take Five: Barney Childs Tritone Press
Any Five: Barney Childs C.P.E.

Interiors: Robert Moran C.F. Peters

Round: Charles Hamm Media Press

Graphic Mobile: William Karlins Media Press

Show-Off: David Macbride manuscript

Ensemble: Romulus Franceschini manuscript

Plus Minus Karlheinz Stockhausen Universal Edition
Solo Karlheinz Stockhausen Universal Edition

PERCUSSION RESEARCH AND STUDIES

by Sherman Hong
University of Southern Mississippi

Much has been said about the pros and cons of plastic and calf heads. The following is a synopsis of recent studies done at the University of Wisconsin, LaCrosse. Duesterbeck, Wayne. *Calfskin and Plastic Drumheads,* University of Wisconsin, LaCrosse.

Introduction

In 1961, Howard Hardy and James Ancell, two prominent acousticians, undertook a study of calf and plastic drums to discover which was superior from an acoustical standpoint.[1] The study was done under control with the most sophisticated electronic equipment available. The results of the study showed the calf head to be superior in acoustical performance. The calf head was found to have much more damping, (capable of staccato beats), capable of a wider range of tension, and could withstand continual beating in the same spot. The only advantage to the plastic head was that it could withstand climactic changes better. The plastic head was found to possess a metallic or ringing tone as compared to the damped tone of the calif head.[2]

Recent Studies

In a recent study of professional timpanists done at the University of Wisconsin, LaCrosse, it was found that over 80% of the timpanists contacted were using calf heads, despite the high cost and relative unavailability of the product.. In another study at U.W.L., it was discovered that a majority of college and university percussion instructors favored the use of plastic heads. Reasons given were: 1) convience, 2) lower cost, 3) higher availability, and 4) superior durability. (Since 1961, most manufacturers have developed a more durable membrane than the mylar in use at that time.) These same instructors favored the use of plastic exclusively on the grammar school through high school levels.

For the sake of clarification, the following chart has been designed to demonstrate the relative characteristics of both heads. The characteristics are given for a standard 5 x 14 wood shell concert snare drum with the tone control deactivated. No muffling was used.

Regarding timpani heads, by far the majority of the professional timpanists favored calf. This choice is not apparently influenced by the performer's age or schooling. In tests performed in the LaCrosse area, it was found that calf timpani heads produce the same damped tone as do the snare drum heads. Plastic heads have a more free tone with considerably more duration and loss decay. The new clear plastic variety seems to combine the resonants of the calf head with the duration of the plastic head. The calf heads appear to emphasize the

fundamental pitch and the upper partials while the clear variety emphasizes the fundamental and middle partials. Naturally, the plastic is less susceptible to climactic influence than calf heads.

Regarding head set, it was found that the plastic head retained the set, once it was set, while the calf heads tended to recover their set with a minimum of tuning manipulation. When the set is lost on the plastic heads, considerable manipulation is sometimes necessary to recover it.

Generally, with regard to all drums, it was found that the calf heads are capable of greater resonance and damping while being highly susceptible to climactic changes, but the plastic heads are more consistent, tonally, and have greater tonal duration.

	CALF	PLASTIC
Definition of beats	X	
Response at low levels	X	X
Response at high levels		X
Shading (tonal variance)*	X	
Resistance to humidity changes		X
Durability		X**
Permanence of head set		X
Stick response (rebound)	X***	
Recovery of suppleness	X	
Freedom from resetting		X
Economic advantage		X
Availability		X
Feel****	X	X

* Difference in tonal quality in different areas of the head, i.e. edge, near edge, center, etc. A quality needed in much of today's literature.

** Medium weight better head of advanced design.

*** "Normal" tension. Both drums tuned to same pitch.

**** Personal opinion. Most older drummers favored calf whereas the younger ones favored plastic.

Recommendations

The writer recommends the following guidelines be used in the selection of heads for grammar school through high school.

1. Plastic heads on snare drums, field drums and tenor drums.
2. Calf heads for concert bass drums, plastic for scotch basses.
3. Plastic heads for all marching percussion.
4. Calf heads on tambourine (Basque) and Tambourin (Provencal)
5. Calf heads for all Latin concert percussion. (bongos, timbales, conga)
6. Calf heads for military drums used in concert. (Sousa marches, etc.)
7. Keep spare heads in stock for all drums no matter how infrequent their usage.

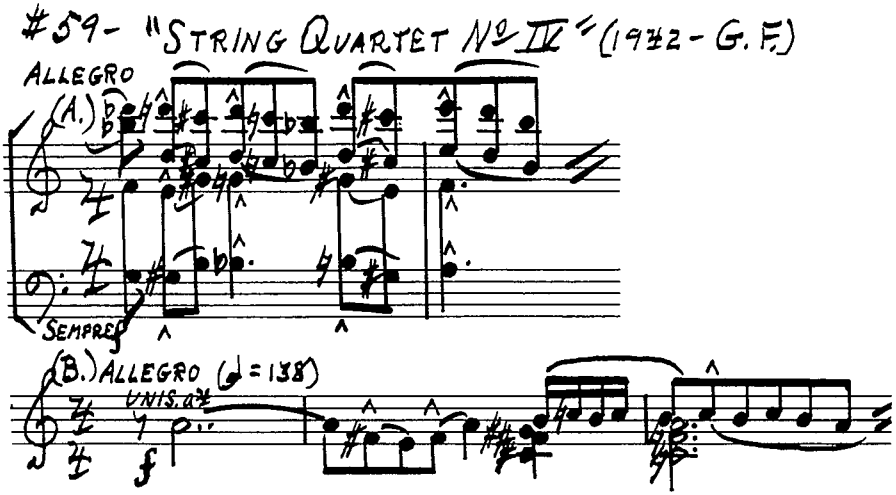
[1]Journal of the Acoustical Society of America, Vol. 33, No. 19, 1961.
[2]*Ibid.*

EFFECT OF OTHER MUSICAL ELEMENTS UPON RHYTHMIC STRESS PERCEPTION

by Grant Fletcher
Professor of Music
Arizona State University

Cross rhythms have been previously defined as the notation of a metric pulse idea in a meter signature which does not fit the idea's fundamental pulsation pattern. Since it is merely a notational inconsistency, I have avoided a complete explanation until we could discuss the notational elements which are so important to an understanding of this problem. It should be apparent from the material so far discussed in this chapter that while much music can exist without physical stress patterns, no music can exist without stress relationships produced by some means. The confusion of rhythmic means has resulted from at least two problems: 1) While some music can be organized into regularly recurrent patterns, music can also occur in irregularly recurrent stress patterns; 2) While some tonal-rhythmic styles demand physical stresses of various types to organize and retain their stress unity, other styles may obtain stress relationships through their inherent notational means. In cross rhythmic examples the true pulse can only be found through the notational means discussed in this chapter. We must also remember that these elements of notation are often altered by stylistic considerations. Most of the difficulty in identifying cross rhythm stems from its possible confusion with syncopation. Ex. 59a and 59b are two examples for examination. Ex. 59a is definitely a cross rhythm, as every notational element coincides to create two units of 5/8 meter. The articulation, harmonic pulse, pitch tension of the upper voice, dynamic signs, pattern ideas, and agogic pulse in the bottom voices all combine to create a series of stresses which in no way refer to 4/4 meter. Such a spot would be notated in 4/4 only to satisfy some convention or for some practical purpose. Ex. 59b (taken from the beginning of the same string quartet), while it contains many elements which contradict a simple 4/4 metric pattern, must definitely be an example of syncopation, for its musical integration lies about its metric organization. The avoidance of articulation on the emphatic first beat of measure one and two, the dynamic accents on off beats in bars two and three, and the beginning articulations of the several patterns contradict the 4/4 meter. And if these alone are played (as must happen in a cross rhythm) they are strong enough to destroy or at least confuse the several agogic, har-

monic, tonal and articulative means which corroborate the metric pulse of 4/4. So to retain musical meaning the b example must be played as a syncopation with a very strong physical pulse to clarify its meter or it will sound quite meaningless and unconvincing.



For examples in a different tonal style, turn again to the Brahms' Symphonies. Symphony No. 2 in D, movement I at bar 52, begins a passage of syncopation in which the inherent elements first confuse the 3/4 metric pattern and then proceed to overpower it so that by bar 57 a true cross rhythm develops. It should feel metric once again at the beginning of bar 59. Brahms' Symphony No. III, movement I, has so many elements present which contradict the notation that performances are usually very muddled. The first theme must sound as a syncopated 6/4 and not a weak 3/2 or it will lose its proper strength. But most orchestras play the opening fairly well - it is the less obvious points which confuse them. The passage after bar 51 should remain a syncopation for some time (possibly until bar 56) and and there are some indications in the score that this was intended (see woodwind dynamics in bars 52 and 53). It is the harmonic pulse and the slurs in the melodic chordal figure which tend to draw it into a cross rhythm, but see the contrabass at bar 53 and the pizzicato changes in the string parts. At bar 61 the same melodic idea plus a new one in the upper parts tends once again to become a cross rhythm. It is easy to see how notational elements have contradicted the bar metric pulses but sometimes quite questionable to perform all such examples as cross rhythms. The performer must play with physical metric pulses to maintain any feel of a syncopation.

Because we have used no static sign for phrase lengths, we have never been confused about cross rhythms of the phrase rhythmic unit. The bar length has been our most troublesome unit because of the formerly rigid adherence to static metricity. If we can identify a cross

rhythm as completely destroying the bar line pulse we will have solved the problem. Yet it is also possible (though not so often practiced) to create cross rhythms about the beat unit. This has not been so common because we have identified the single beat with a more or less regular muscular sensation and our greatest used means of altering its length has been through tempo changes of pace, sometimes gradual (accel., rit., etc.) and sometimes abrupt (at formal points). So these cross rhythms about the beat unit may not become a very popular (to the performer) means of rhythmic organization because of the muscular difficulties involved. Yet one can find examples. One such example of a cross rhythm of the beat unit is given in the previously mentioned article on Byrd's Great Service (Musical Quarterly, Vol. XXVII No. 4, page 481). In this example Mr. Giles Whittaker has wisely used dotted brackets to enclose groups of three and six eighth notes duration which, he explains, are "measures of 3/8 or 6/8 in the midst of normal three -, four -, or six - quarter measures . . . It is not syncopation as we know it, but a sudden passing from one type of grouping to another and back again." The example quoted is given with bars which (though changing freely in metric lengths) seem to mostly accept the quarter note as the beat unit. Yet at these dotted brackets it is necessary to feel the unit change to the eighth note and the pulse pattern now becomes triple with the group equal to one and a half times the duration of the previous quarter note beat. It is axiomatic to our unthinking acceptance of conventional rhythmic concepts that such subtle changes of stress relationships should be overlooked and forgotten in our musical styles. Actually any subdivision of a beat unit notated in a manner which opposes the commonly articulated divisions of simple or complex meter signatures is a beat divisional cross rhythm. So the occurrence of triplet eighth notes in a bar of 2/4 is such an example. Experienced musicians are not disturbed by this because the beat feeling remains the same and only the divisional articulations need be reorganized, but it is a difficult problem for the musically inexperienced beginner. I have mentioned the phrase and beat unit cross rhythmic possibilities because we will find later that the necessity for such irregularities as might occur in these lengths is exactly the same problem as that of the bar unit cross rhythm which has seemingly confused our stress perception of musical rhythm. The inconsistencies of cross rhythmic notation may continue to be necessary for extremely complex rhythmic problems where several parts do not coincide in rhythmic flow. Its use is probably quite justified when a composer can create the gamut of his rhythmic meaning by inherent means and so need not be too meticulous in his notation of an idea. But many times the performer's lack of understanding of rhythmic means has forced the composer to notate conventionally rather than intelligently.

Syncopation has been previously discussed in Chapter IV and defined as the addition of stresses (either physical or of the inherent

notational types discussed in this chapter) which in many ways contradict the ordinary metric pulse patterns but never completely destroy them.

The term *contrarhythm* which I have employed in this chapter refers to the possible organization of several simultaneous streams of rhythmic forces which contain no common stress points. I have coined this term chiefly to avoid the word polyrhythm, which has been so glibly applied to every type of metric contradiction and durational freedom in 20th Century musical writings. Most of this widespread ascription of new rhythmic resources to the polyrhythmic category has developed from the lack of understanding of the simple rhythmic phases involved and the concepts of their organization which have been opened to composers. I shall have more to say about these "polyrhythms" in the next chapter. The Tudor Madrigalists employed more true contrarhythm (polyrhythm?) than most of our modern styles of writing.

At this point it will be useful to apply the rhythmic means which we have discussed so far in these five chapters to an analysis of some well known scores. If we can perceive the rhythmic problem in a score and analyze the sounding pulses through these rhythmic means we will have discovered the very lifeblood of the work, and the necessary basis of its reproduction.

President's Corner

As we approach another December your President excitedly looks forward to our annual meeting and the opportunity of meeting with as many Percussive Arts Society members as possible.

Aside from the regular meeting, this year's Board Meeting will continue to discuss ideas and policies that will aid the growth and meaning of the Percussive Arts Society. Your participation in these ideas through correspondence with your State Chairman, National Officers and publication editors will greatly help in our decision making.

Also, the Day of Percussion, which was so successful last year, will be held again. We learned much from last year's effort, and this year a more varied program, groups from various parts of the country and various levels of the education and professional fields will add variety and interest to what looks like a most exciting and rewarding program.

It is with great expectation that your President looks forward to seeing as many of you as possible in Chicago.

THE PERCUSSION ENSEMBLE 1930-1945
by Larry Vanlandingham

Con't. from Page 118, Volume IX, Number 4 of PERCUSSIONIST.

Consolidation of Styles

Individually and separately, Roldan and Varese illustrated that it was possible to separate the percussion section from the orchestra and create a music which did not rely heavily on pitch and on harmonic relationships, but rather on rhythm and timbre. During the period 1933 to 1942, increasing numbers of composers became interested in the percussion ensemble. In 1933, Henry Cowell wrote:

> Up to this year, in my experience as a music publisher I have never been offered any work for percussion instruments alone. This season I have been offered fifteen different works for such combinations, . . .[1]

During that period, however completed ensembles were often never published. Many of the works are no longer extant, and are not available for study. Table 3 lists twenty ensembles from which definite data can be obtained. Generally, though not always, performers are required to play more than a single instrument. Sets of from two to five instruments having similar or, at times, different timbres are employed with increasing frequency. The variety of percussion instruments is greatly expanded. In addition to the use of keyboard instruments and a considerable range and variety of pitched and non-pitched conventional percussion instruments, many of the ensembles require devices heretofore not commonly associated with musical performance: tin pans, barrels, dinner bells, bottles, rice bowls, glass tumblers, marbles, metal bowls, sheets of metal, automobile brake drums, and panes of glass.

Many of the composers listed in Table 3 worked individually, each having his own theories and expressing them in his compositions. During the last years of the 1930's, however, a few percussionists and composers active on the Pacific coast began to gravitate around Cowell and his New Music Editions, working together to exchange ideas on percussion writing and techniques. These musicians gave demonstrations, lectures, and performances concerned with percussion music. The group included John Cage, Lou Harrison, Johanna M. Beyer, Ray Green, Gerald Strang, William Russell, and a few others.[3]

The interest of the Pacific coast group in percussion grew in part from their own working musical environment; Harrison, Cage, and their West-coast associates developed their interest naturally, as composers for the modern concert dance.[4] In the late thirties, there was

TABLE 3

PERCUSSION ENSEMBLES COMPOSED BETWEEN 1933 AND 1939[a]

Year	Composer	Title	No. of Percussionists	Instrumentation
1933	José Ardévol	Estudio en Forma de Preludio y Fuga, para 37 Instrumentos de Percusión, Fricción y Silbido	22	Single Instruments: Military Dr, 2 Sn. Drs, Bongos, 2 Tom Toms, 2 Timpani, 2 Bass Drs; 3 Bells, 2 Anvils, Hand Cym, Sus. Cym, Gong; 2 Slapsticks, Maracas, 2 Claves, 3 Guiros; Police Whistle, 2 Sirens; 3 Hand Clappers; 2 Pianos
	John Becker	Abongo	15	Single Instruments: Sn. Dr, Bass Dr, Water Dr; Hand Cym, Sus. Cym, Gong; Hand Clappers Sets of Instruments: 2 Small Drs, 2 Drs, 5 Timp, 4 Timp, 4 Timp; 2 Gongs, 2 Tin Pans; 2 Barrels
	Johanna M. Beyer	Percussion Suite	5	Single Instruments: Tom Tom, Bass Dr; Triangle, Tambourine, Cym; Xylophone, Rattle, Castanets Sets of Instruments: 2 Chinese Blocks
	William Russell	Fugue for Eight Percussion Instruments	8	Single Instruments: Sn. Dr, Bass Dr; Triangle, Glockenspiel; Xylophone, Piano Sets of Instruments: 4 Timpani; 2 Sus. Cym.

TABLE 3--Continued

1933	William Russell	March Suite	3	Single Instruments: Sn. Dr, Bass Dr, Flat Haitian Dr; Triangle; Slide Whistle; Piano Sets of Instruments: 2 Tom Toms; 3 Cowbells, 3 Turkish Cym; 2 Woodblocks
		Three Dance Movements	4	Single Instruments: 2 Tom Toms; Hand Cym; Slapstick; Piano; Bottle Sets of Instruments: Sn. Dr.-Bass Dr.-2 Woodblocks; 2 Triangles-Small Dinner Bell-Bottle-Anvil; Finger Cym.-2 Sus. Cym.
1934	José Ardévol	Suite, para 30 Instrumentos de Percusión, Fricción y Silbido	15	Single Instruments: Small Military Dr, Sn. Dr, 2 Tom Toms, Bongos, 1 Timp, Bass Dr; Sus. Cym, Hand Cym, 2 Gongs, Triangle, 2 Bells, 2 Anvils; 2 Claves, 2 Guiros, Maracas, Slapstick; 2 Sirens, Police Whistle; Piano; 4 Hand Clappers
	Henry Cowell	Ostinato Pianissimo	8	Single Instruments: Bongos; Xylophone; 2 Pianos Sets of Instruments: 3 Tom Toms; 3 Gongs; 2 Woodblocks-Tambourine-Guiro; 8 Rice Bowls
1935	Johanna M. Beyer	IV	9	No Instruments Listed in Score
	Harold G. Davidson	Auto Accident	12	Single Instruments: Trap Dr, Bass Dr; Chimes; Ratchet, Chinese Woodblock, Xylophone; Siren; Piano

TABLE 3--Continued

				Sets of Instruments: 3 Timpani; 5 Temple Blocks; 9 Musical Tumblers
1936	Gerald Strang	Percussion Music for Three Players	3	Single Instruments: Bass Dr; Sus. Cym, Anvil, Triangle; Maracas Sets of Instruments: 3 Tom Toms; 5 Small Bells, 2 Gongs; 2 Woodblocks, 5 Temple Blocks
	Ray Green	Three Inventories of Casey Jones	5	Single Instruments: Piano; Large Bottle with Marbles Sets of Instruments: 2 Drs; 2 Sus. Cym, 4 Gongs; 5 Pop Bottles
1938	John Becker	A Dance	6	Single Instruments: Sn. Dr, Bass Dr; Sus. Cym, Gong; Piano Sets of Instruments: 2 Gongs
1939	Johanna M. Beyer	Percussion Opus 14	11	Single Instruments: Tom Tom, Sn. Dr, Bass Dr, Timpani, String Dr; Gong, Sus. Cym, Triangle, Anvil Sets of Instruments: 2 Metal Bowls; 4 Temple Blocks
		March for 30 Percussion Instruments	6	Single Instruments: Sn. Dr, Bass Dr, String Dr; Anvil, Tambourine, Gong, Thunder Sheet; Temple Blocks Sets of Instruments: 4 Tom Toms; 2 Sus. Cym, 3 Triangles, 2 Metal Bowls, 4 Temple Gongs; 3 Chinese Wood Blocks; 4 Rice Bowls

TABLE 3--Continued

1939	Johanna M. Beyer	Three Movements for Percussion	9	Single Instruments: Bass Dr, Sn. Dr, Tom Tom; Hand Cym, Gong, Bells, Triangle, Tambourine; Wood Block Sets of Instruments: 2 Timpani; 2 Triangles; 2 Wood Blocks
		Waltz for Percussion	9	Single Instruments: Bass Dr, Tom Tom; Sus. Cym, Gong, Bell Sets of Instruments: 2 Timpani; 2 Triangles; 3 Temple Blocks
	Henry Cowell	Pulse	5	Single Instruments: None Sets of Instruments: 3 Drums, 3 Chinese Tom Toms; 3 Temple Gongs, 3 Sus. Cym, 3 Gongs, 3 Pipe Lengths, 3 Brake Drums; 3 Temple Blocks, 3 Wood Blocks; 3 Rice Bowls
		Return	3	Single Instruments: None Sets of Instruments: 3 Tom Toms, 3 Drums; 3 Gongs, Small Bell, 3 Japanese Cup Gongs; 3 Wood Blocks, 3 Temple Blocks; Japanese Wind Glass, Pane of Glass
	William Russell	Percussion Studies in Cuban Rhythms	4	Single Instruments: Bongos; Cowbell, Cowbell; Guiro, Maracas, Claves, Quijada; Marimbula Sets of Instruments: None

Source: All of the works except those by José Ardévol were made available through the courtesy of Mr. Harry L. Kownatsky, Curator, The Edwin A. Fleisher Music Collection, The Free Library of Philadelphia, Philadelphia, Pa.

widespread interest in the modern dance in the United States. In that area, percussion was essential as aids in defining rhythmic change. The functional character and free rhythmic development of the modern dance offered a new idiom to composers. Having mastered the gamut of the instruments used in the dance studios, they proceeded to compose works in larger forms, with enough instruments, timbres, and rhythms to achieve independent musical compositions. Between the years 1938 and 1942, more than forty ensembles were composed by members of this group.

Of all the composers of percussion music during that period, Lou Harrison was perhaps the most prolific. Among his works for percussion ensemble are fourteen Simfonies and five Canticles, most of which are not available for study; those works which are available are listed in Table 4. In Harrison's works, which display those instruments commonly used by the Pacific group, a wide range of both conventional and unorthodox instruments are evidenced. For membraned timbres, Harrison relied heavily on assorted sizes of tom-toms and bass drums; snare drums and timpani were seldom employed. Metallic sounds were obtained from all types and sizes of gongs, bells, and cymbals from Turkey, China, Japan, and Near-Eastern countries. Wooden timbres were most often produced on assorted sizes of Chinese wood blocks and Korean temple blocks. Harrison's scores also consistently require many unconventional instruments: flexatones, musical saws, thunder sheets, wind glasses, flower pots, porcelain bowls, glasses, automobile brake drums, tortoise shells, metalaphones, and bell coils. In *Canticle No. 3* (1940) are to be found many of the devices preferred by Harrison in his work with percussion.[5]

TABLE 4

LOU HARRISON'S PERCUSSION ENSEMBLES (1939-42)

Title	No. of Percussionists	Percussion Instruments employed
Fifth Simfony (1939)	4	Single Instruments: Sn. Dr, Small High Medium Dr, Bass Dr; Small Sus. Cym, Sus. Turkish Cym, Low Sus. Cym, Small Gong, Small Muted Gong, High Medium Gong, High Medium Muted Gong, Low Medium Gong, Low Medium Muted Gong, Low Gong, Low Muted Gong, Small Triangle, Large Triangle, Small Bell, High Medium Bell, Low Medium Bell, Low Bell, Small Sistrum, Low Sistrum, Thundersheet; Small Chinese Block, Small Rattle, Low Rattle; High Tortoise Shell, Low Tortoise Shell Sets of Instruments: None
Bomba (1939)	5	Single Instruments: Tom Tom, Bass Dr; 2 Metal Rattles, Thunder Sheet; Maracas, Rasp

		Sets of Instruments: 3 Large Bells; 3 Temple Blocks, 3 Chinese Wood Blocks; 3 Flower Pots
Canticle No. 3 (1940)	5	Infra, pp. 45-46
Labrynth #3 (1941)	11	Single Instruments: Bongos, Tom Tom, Bass Dr; 2 Sistrum, Japanese Button Gong, Thunder Sheet, Large Temple Bell, 2 Flexatones, 2 Saws, Elephant Bell, Water Gong; Claves, 2 Maracas, Wood Rattle, Rasp, 2 Guiros; Teponazli; Wind Glass; Bass Viol Sets of Instruments: 5 High Drs, 5 Tom Toms, 2 Bass Drs; 3 Small Bells, 5 Cup Bells, 2 Gongs, 5 Cowbells, 5 Brake Drums, 3 Muted Gongs, 2 Sus. Cym; 5 Wood Blocks, 5 Temple Blocks; 5 Flower Pots, 5 Porcelen Bowls, 5 Glasses
Song of Queztecoatl (1941)	4	Single Instruments: Sn. Dr, Bass Dr; Triangle, Gong, Tam Tam; Wood Rattle, Guiro; Wind Glass Sets of Instruments: 5 Tom Toms; 2 Sistrums, 5 Cowbells, 5 Brake Drs; 5 Temple Blocks, 5 Wood Blocks; 5 Glasses
Fugue (1942)	4	Single Instruments: Bass Dr; Wash Tub, Sus. Turkish Cym; Claves, Maracas, Box; Flexatone, Metalaphone, Bell Coil Sets of Instruments: 5 Cowbells, 5 Meditation Bells, 5 Brake Drs, 2 Gongs, 3 Triangles
Double Music[4] (1941)	4	Single Instruments: 2 Tam Tams Sets of Instruments: 4 Water Buffalo Bells, 5 Muted Brake Drs, 4 Sistrums, 6 Sleigh Bells, 5 Brake Drs, 4 Japanese Temple Gongs, 6 Cowbells, 6 Muted Gongs, 6 Brake Drs.

Source: Canticle No. 3, Song of Queztecoatl, and Fugue are published by Music For Percussion, 17 West 60th, New York. Double Music is published by C. F. Peters Corporation, 373 Park Avenue South, New York. The remaining manuscripts were made available through the courtesy of Mr. Harry L. Kownatsky, Curator, The Edwin A. Fleisher Music Collection, The Free Library of Philadelphia.

Canticle No. 3 originally required five performers who were capable of playing many instruments. In the published edition, which requires seven performers, the ocarina and guitar parts are separated from the parts of the five percussionists and distributed to individual performers.

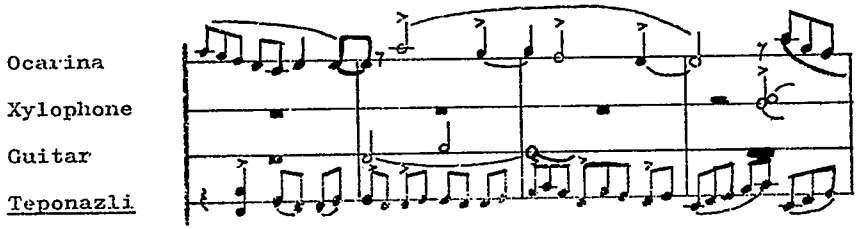
(1) Ocarina - small egg-shaped wind instrument with mouthpiece and fingerholes (may substitute flute)
(2) 6 Iron Pipes - graduated in pitch; muted by laying on cloth pad; played with rubber mallets.
5 Wood Blocks - graduated in pitch.
(3) 5 Automobile Brake Drums - muted; graduated in pitch; played with rubber mallets.
3 Automobile Brake Drums - suspended
Xylophone - small keyboard instrument with hardwood keys; struck with hard mallets.
5 Dragon's Mouths (Temple Blocks) - round, clam-shaped wooden blocks; played with mallets.
Maracas
Elephant Bell - round bell with suspended clapper; this part requires small bell.
(4) Guitar - tuned to E, B, F, E, B, E.
(5) 6 Water Buffalo Bells - cowbell-shaped bells; played with mallets.
Wooden Box - score vague about this; 3 different pitches indicated in part.
2 Sistrums - metal frames with loose metal bars; sound produced by shaking instruments.
Elephant Bell - this part requires medium bell.
(6) 5 Tongued Teponazli (or 5 Marimba Tones) - hollowed log with (in this case) 5 tongues of different lengths which vibrate when struck with mallet.
Tam-Tam - to be played with beater and triangle beater.
5 Cowbells - muted; graduated in pitch.
(7) Snare Drum
Bass Drum
5 Tom-Toms - graduated in pitch.
Elephant Bell - this part requires large bell.

In instrumentation Harrison, even more than Varese, seems impelled to avoid standard percussion. Timpani and cymbals are absent; snare drum and bass drum are used sparingly. *Canticle No. 3* exploits sets of conventional instruments (e.g., five wood blocks, five tom-toms) and unconventional instruments (e.g., five brake drums, six water buffalo bells) for their ability to produce a number of graduated indefinite pitches having the same timbre.

Varese took pains to describe instruments and playing techniques, as well as to dictate, in certain instances, the exact mallet or beater to use. The opposite extreme is employed in *Canticle No. 3.* Other than to dictate the tunings of the guitar and the three xylophone pitches and to write that all of the guitar strings are to be "open, or 1st & 2nd frets as designated,"[7] Harrison describes none of the instruments or playing techniques. The composer tells neither how the various instruments are to be muted nor, excepting the tam-tam, what beaters

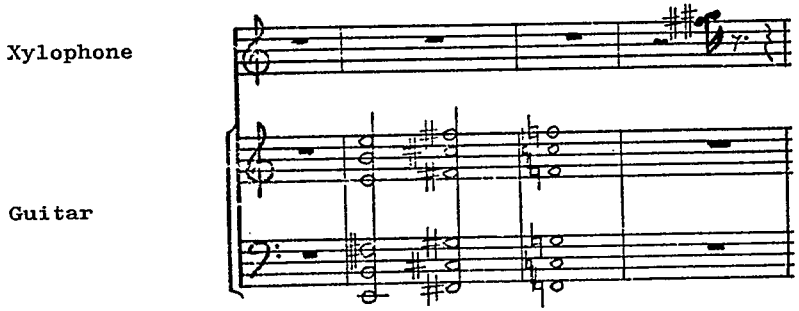
and sticks to use. The assumption that the instruments are graduated in pitch can be drawn only from the fact that they appear below and above single lines (Example 18).

Example 18. *Canticle No. 3*, p. 3, meas. 1-4.



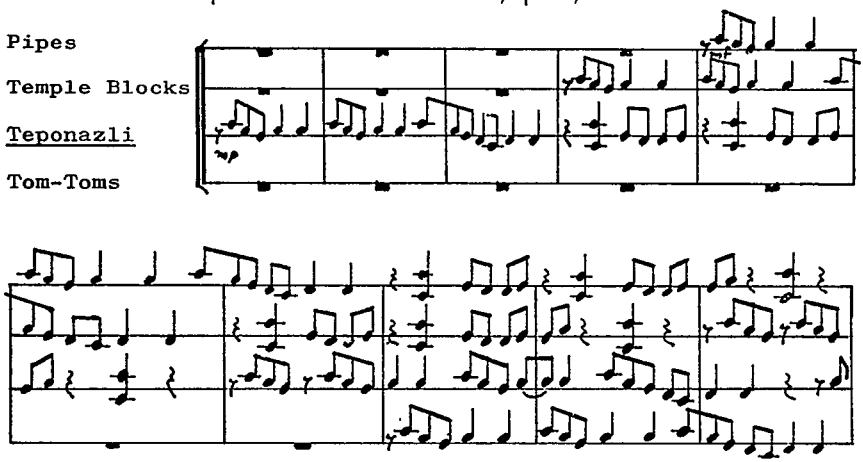
In *Canticle No. 3*, the composer divides the four pitched instruments into two groups, each of which has a different function: the ocarina and *teponazli* manipulate thematic material; the guitar and xylophone provide rhythm, timbre, and range. Of the first group, only the ocarina produces sostenuto (Example 18). Though both instruments are non-pitched in the sense that they do not appear in a clef, it can be assumed that performance would render them somewhat tonal. A pentatonic scale may be suggested, though Harrison is apparently indifferent to exact pitches. Much would depend on the ranges of the ocarina and *teponazli* employed for performance, it is possible that they would not have the same tuning. The other two instruments, guitar and xylophone, produce slightly sostenuto and secco sounds respectively. The following Example 19 illustrates the actual durations and pitches sounding on the guitar and xylophone in the concertino passage quoted above.

Example 19. Actual duration and pitches sounding on guitar and xylophone in Example 18.



Both Harrison and Cage were often termed "purists" because their ensembles were written without actual pitches. However, the two composers were very much concerned that their percussion timbres be graduated in pitch, the instruments were thereby capable of producing melodic implications. In addition to the pitched ocarina and *teponazli*, thematic material in *Canticle No. 3* is ultimately manipulated by ten non-pitched instruments--non-pitched in the sense that they are not tuned to definite pitches. Each of these ten metallic, wooden, or membraned instruments consists of a set of two, three, five, or six sound producers. When the instruments deal with thematic material, their short, non-pitched timbres are rendered somewhat tonal. The intervals within each part are relative to the arbitrary graduated pitches of the instruments. Even the seemingly arbitrary and unmusical sound-producing objects become distinctly musical as they exert a distinguishable melodic implication. In the following Example 20, the melody realized in solo by the mellow "plink" of the *Teponazli* is imitated successively by the hollow "tonk" of temple blocks, the short-ringing "klang" of iron pipes, and the hollow "bomp" of tom-toms.

Example 20. *Canticle No. 3*, p. 5, meas. 15-24.



All of the pitched and non-pitched instruments discussed above have limited ranges, the gamut of each range being dependent on the performers' choice of sound producers. No matter what range is chosen, however, none of the timbres are duplicated by other sets producing similar timbres. Consequently, the work contrasts relatively narrow ranges of diverse timbres; mixtures of highs and lows of the same timbre are not basic to the style of *Canticle No. 3*.

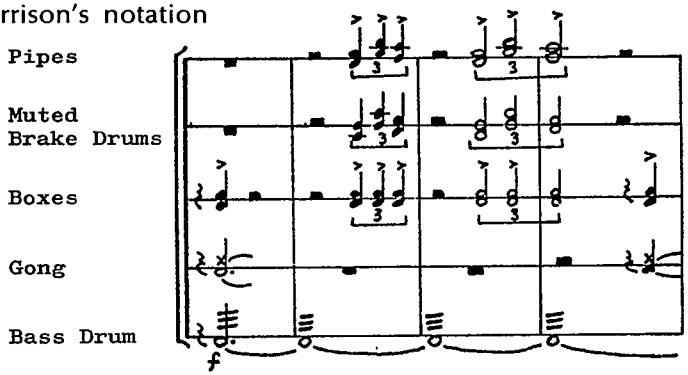
In addition to their use in manipulating thematic materials, assorted sets of instruments are at times used in a manner similar to the guitar and xylophone, to provide rhythm, timbre, and range. The single

non-pitched maracas, elephant bells, sistrums, and tam-tam are also employed in this manner; they are used infrequently and sporadically to produce ringing effects and dry sounds. The following Example 21a illustrates a tutti passage in which the short-sounding sets of pipes, muted brake drums, and boxes are combined with the ringing "ping" of gong (struck with a metal rod) and the rumbling ringing effect of tremolo bass drum. Example 21b is a condensation showing the actual durations of the passage.

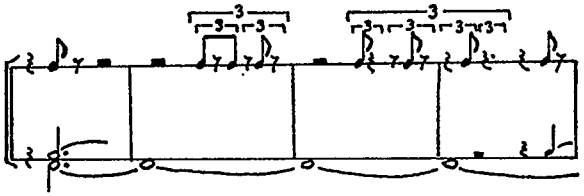
To summarize, each of the five percussionists employed in *Canticle No. 3* is required to play several instruments. Though the notation of the ocarina, *teponazli*, and sets of non-tuned instruments conveys neither a sense of key and scale nor degree of high and low, a definite melodic implication is conveyed by their arbitrary graduated pitches in performance. Only the ocarina, guitar, and certain non-pitched single instruments produce sostenuto or its illusion, all other sets and single instruments produce various degrees of staccato. Various combinations and contrasts of dry and resonant staccatos permeate the work: these short timbres are only occasionally combined with ringing sounds. Harrison appears to be interested in contrasting relatively narrow ranges of unduplicated timbre rather than in obtaining homogeneous mixtures of wide ranges of sound.

Example 21. *Canticle No. 3*, p. 16, meas. 8-11.

(a) Harrison's notation



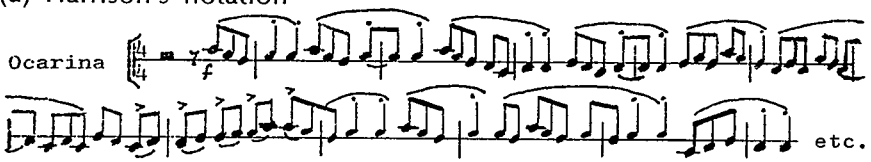
(b) Condensation showing actual durations



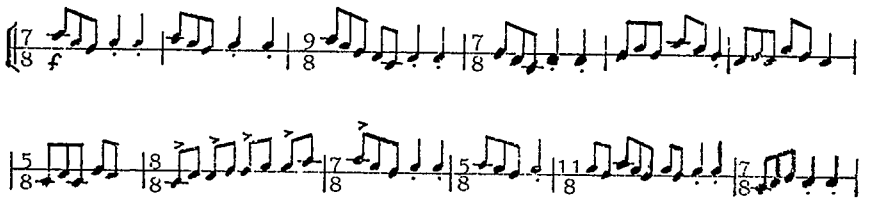
Canticle No. 3 is notated in 4/4 throughout, but it appears that the meter signature is for convenience only. There are few instances in which the meter is a procession of four quarter-note beats. Instead, Harrison obtains an irregular procession of mixed meters by employing various combinations of plain and dotted rhythms. The following excerpt shows the composer's notation of a portion of the first of two melodies on which the work is based (Example 22a) and its conversion into an assortment of mixed meters involving the quarter note and dotted-quarter note in normal notation (Example 22b-c).

Example 22. *Canticle No. 3*, p. 1, meas. 1-14.

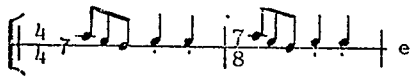
(a) Harrison's notation



(b) Actual rhythm



(c) Alternate rhythm for measure 1

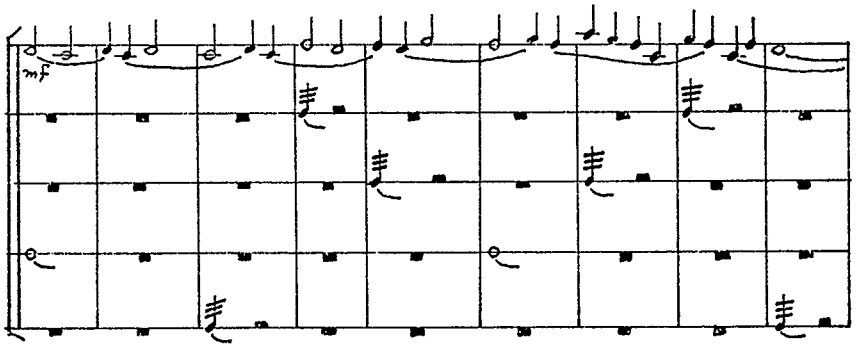


The second theme mixes rhythms combining half notes and dotted-half notes. As in the first melody, the rhythms have prolations of two or three, no more. Both themes are often combined with bits of random rhythm having various degrees of duration. The following Example 23a shows all of the notated parts employed in a passage combining theme two with apparently random rhythms, and a condensation illustrating that Harrison is actually combining the mixed meters of the theme with alternating "measures" of 5/1 and 4/1 (Example 23b).

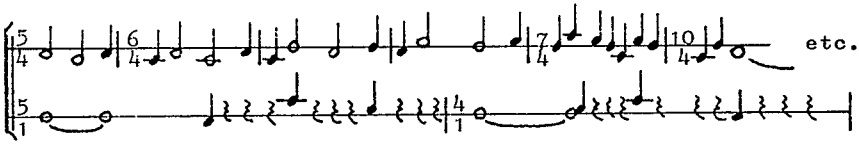
The two themes are, in turn, subject to extensive use, distributed among the sets of instruments, developed by fragmentation, variation,

Example 23. *Canticle No. 3*, meas. 166-74

(a) Harrison's notation



(b) Condensation showing actual rhythm



and frequent restatement in part and in full. Imitation is the most rigorous development employed in the work (Example 20, *Supra*, p. 50).

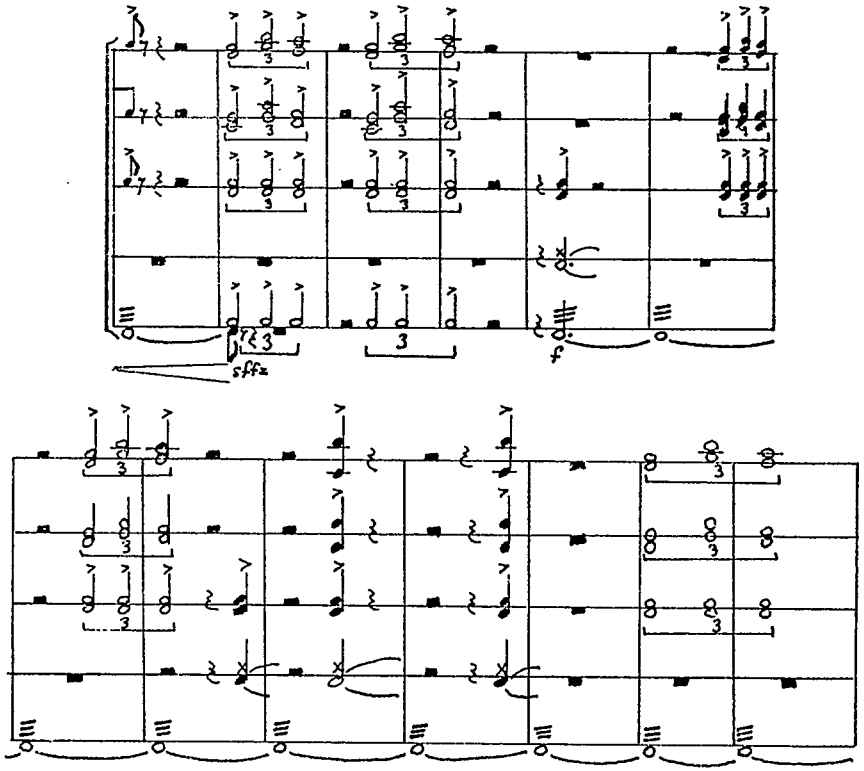
The following Example 24a illustrates a portion of a non-metric passage in familiar style. The passage appears toward the end after an extremely agitated tutti passage in mixed meter. By combining extended durations (bass drum, gong), moments of silence, and increasingly separated staccato reiterations, Harrison achieves a non-metrical effect; the illusion of an unmeasured *ritardando* is obtained by means of a highly controlled notational measurement. Example 24b is a condensation showing the actual rhythmic durations of the passage.

The excerpts described above constitute the features most basic to the style of *Canticle No. 3.* Passages featuring irregular but on-going mixed meters based on plain and dotted beats alternate with recitative passages employing various combinations of staccato, legato, and silence. The treatment of two somewhat pentatonic melodies in solo, in imitative style, and in combination with random rhythms is only infrequently interrupted by moments involving thematic materials or rhythms in familiar style. The alternation of metrical and non-metrical passages, the persistence of mixed meter, the continual use of normal notation with prolations of twos and threes, and various contrasts of solo, concertino, and tutti underlie the entire work.

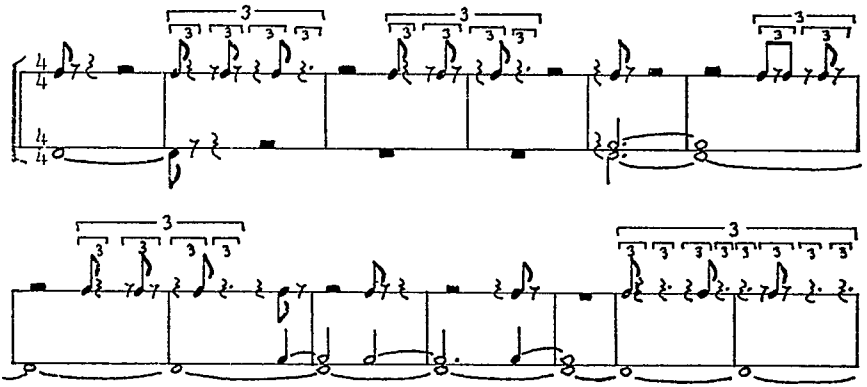
In addition to being perhaps the most prolific composer of percussion music, Lou Harrison has proved to be one of its more per-

Example 24. *Canticle No. 3*, p. 16, meas. 4-16.

(a) Harrison's notation



(b) Condensation showing actual rhythmic durations.



sistent advocates. This can also be said of one of Harrison's closet associates during the late thirties, John Cage.

To be continued in next issue of PERCUSSIONIST.

FOOTNOTES:

[1]Henry Cowell, "Toward Neo-Primitivism," *Modern Music*, X, No. 3 (March-April, 1933), 153.

[3]All of the available ensembles composed by Beyer, Green, Strang, and Russell are listed in Table 3; those of Harrison and Cage are listed in Tables 4 and 5 respectively.

[4]Henry Cowell, "Drums Along the Pacific," *Modern Music*, XVIII, No. 1 (November-December, 1940), 49.

[5]Peter Yates, "Lou Harrison," *American Composers Alliance Bulletin*, IX, No. 2 (1960), 3.

[6]*Double Music* was composed jointly by Lou Harrison and John Cage.

[7]Lou Harrison, *Canticle No. 3* (New York: Music for Percussion, 1960), p. ii.

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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, beginning at 2:30 p.m. a full afternoon and evening of percussion performances and/or clinics will be held in the College Inn of the Sherman House. It will include outstanding solo and ensemble performances and presentation of the first annual awards for tpthe percussion Hall of Fame.

Following is a list of events in order of appearance:

1. High School Percussion Ensemble directed by Jake Jerger.
2. Percussion section of the Indianapolis Symphony.
3. Crane University, Potsdam, New York percussion ensemble directed by James Petercsak, guest soloist, Roy Burns.
4. Gary Burton
5. Indiana State University Percussion Ensemble, directed by Neal Fluegel, guest soloist, Jim Gandduglia;guest conductor Ramon Meyer.
6. Hall of Fame awards.
7. Black Earth professional percussion ensemble.

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 PERCUSSIVE NOTES.

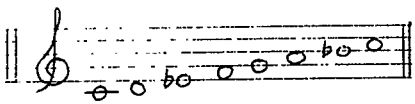
MALLET IMPROVISATION

by Robert B. Clayton
Deputy Commander/ Associate Conductor
Military Airlift Command Band
Scott A.F.B., Illinois

The main tools of Melodic Improvisation are chord tones, (which include arpeggio fragments) scale tones (which include approach notes and passing tones), and tension notes.

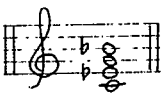
Most tunes are constructed on a harmonic basis, which is a progression of different chords. The purpose of improvisation is to play interesting melodic lines which flow smoothly over the harmonic progression. To do this the improvisor must have a thorough knowledge of scales, chords, and understand the relationship of melody to harmony. The improvisor must make snap decisions on note selection, rhythmic pattern(s) selection, and note resolution.

The main problem encountered by most student improvisors when they are reading a sheet of chord symbols is which scale to play against which chord. If there were a proper scale for each chord regardless of where the chord occurs, the problem would be simple. Too often teachers over-simplify this problem by stating that: "The scale for the Cm^7 chord is:



Needless to say, this inaccuracy obscures one of the basic concepts on which tonal harmony of music is built.

Let's examine the C minor seventh chord. The symbols "Cm^7" means



Standing by themselves, these four notes actually have very little significance. They are neutral enough in quality to be placed in any number of different harmonic situations. In each case, the chord will take on a different color and a different functional meaning. Let's examine four "typical" situations where the Cm^7 chord may appear:

(1) As the diatonic seventh chord built on the sixth degree of an Eb major scale.

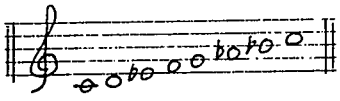
(2) As the diatonic seventh chord built on the second degree of a Bb major scale.

(3) As the diatonic seventh chord built on the third degree of an Ab major scale.

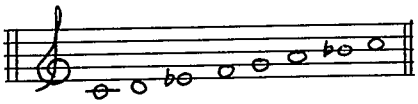
(4) As the diatonic seventh chord built on the fourth degree of a G harmonic minor scale.

Thus we see one simple chord in four different contexts. The chord itself doesn't change, but its function or use changes, therefore the proper scale in each case is different.

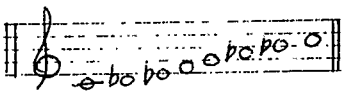
How do you determine the proper scale? All chords do not stand alone, but are a part of a larger order. They tend to be heard in groups of two or more, and these groupings indicate a kind of goal that the harmonic movement has reached up to that point -- a specific tonality or tonal area. These tonal areas do have proper scales, which are easy to figure out. In example No. 1, the Cm^7 chord was in Eb major so the improvisor knows to employ an Eb major scale for the duration of the chord, but avoid starting or stopping on the note Eb, use the note C:



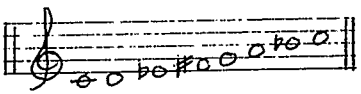
In example No. 2, Cm^7 occurs in Bb major, so the Bb major scale is appropriate, but again avoid starting or stopping on Bb:



In example No. 3, the Cm^7 chord occurs in the framework of Ab major, so the Ab major scale is used. Avoid starting or stopping on the note Ab:



In the last example No. 4, the Cm^7 chord is found in the framework of G minor, so the G harmonic minor scale is appropriate. Again, try to avoid starting or stopping on the note G:

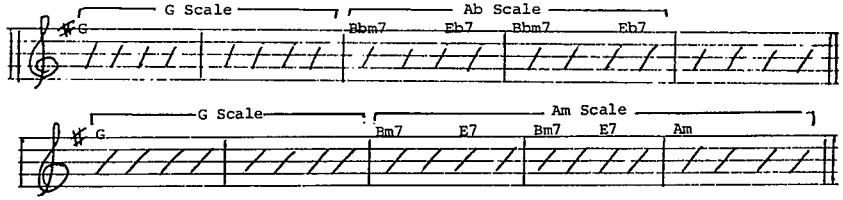


By using this "chord-grouping" approach, it should help clarify matters somewhat. I might add that it should help the improvisor in working with modulations - shifts in tonal areas and false modulations - new tonal areas that are not established but temporarily implied.

As a new tonal area is approached, the scale that defines it is the one to be used. It should be clear that it is not every new chord that has its own appropriate scale but every tonal area.

Too many student improvisors get "hung-up" trying to improvise on each chord, instead of using the tonal area implied or established by a group of chords.

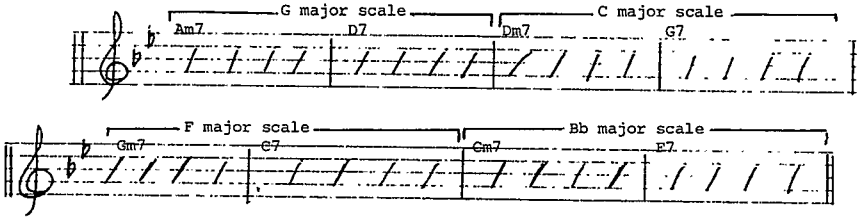
Here is an example:



In example A, there are five different chords in all, but only three scales should be used - because there are only three tonal areas. The reason is that Bbm^7 - Eb^7 chords form a grouping that indicates an approach to the tonality of Ab major. Also, the Bm^7 - E^7 chord progression indicates an approach to the tonality of A minor, which is actually achieved in the next bar.

Here is another example:

In this progression the main tonality is Bb major.



In example B, there are eight different chords, but only four indicated tonalities, therefore there are only four scales involved.

In conclusion, improvisation consists of chord tones, scale tones, and tension notes. Tonalities, not chords, have related scales. Usually a chord grouping, rather than a single chord indicates or establishes a tonal area, and the proper scale must be related to the tonal area.

It is probably difficult for a student to understand how chords combine to establish or imply tonal areas -- the progression Fm^7 -- Bb^7 -- Cm^7 indicates the tonal area of Eb major, even though the chord Eb major doesn't appear. To answer simply, in this progression, the Eb major scale is used because it is the *only* one encompassing *all* the tones of *all* the chords in the grouping.

The more that one performs and analyzes music, the faster he will be able to hear and locate the tonal areas implied or established by the chord progressions.

A NEW APPROACH TO REVIEWING PERCUSSION ENSEMBLE LITERATURE

by Charles W. Hiebert
Route No. 3, Box 139
Gillsboro, Kansas 67065

Editors Note:

This article has also been accepted for Publication in a future issue of the NACWPI journal.

The music of our European heritage uses the concept of rhythm and tone color to gain variation and maintain interest, but the greatest concern for musical ideas are in the melodic and harmonic aspects, with concerns for rhythm and timbre playing a minor role. The music of the percussion ensemble contains the opposite emphasis - the melodic and harmonic elements are contained or at least implied in the music with the majority of emphasis on rhythmic manipulation and concern for timbre.

In recent years the percussion ensemble has become a part of the total music program in the high school. This has come about because of the realization that percussionists are generally not taught what they eventually are expected to play, and the literature written for the percussion ensemble in recent years makes it a valid media.

To understand this media there are certain musical elements that are peculiar to this media that must be looked at from the viewpoint for which it was written - percussion; and at the same time there are certain considerations that remain unchanged regardless of the media. Those characteristics that are peculiar to percussion chamber music are the following:

1. INSTRUMENTATION - In percussion chamber music there is no such standardization of ensemble as the string quartet or woodwind quintet. Each piece is an ensemble all its own with no real relationship to the next. A composition may call for three players, while the next may call for fifteen or more players. We have not even decided on a grouping of ensembles by size. While six players seem to be a breaking point between small ensembles and large, this is quite vague. The International Reference Library catalog indicates that any ensemble over six players is a large ensemble; but even within the category of the large ensemble, one does not know how many players will be needed.

2a. INSTRUMENTS, SPECIFIC - Each percussion instrument itself also lacks a great deal of standardization. When a part is scored for violin, the specific instrument and sound is known. However, on the contrary when the composer asks for a crash cymbal many options exist. The size will change appreciably the timbre not only of that specific instrument, but also the entire timbre of the ensemble. If a suspended cymbal is scored, even more options may be taken. The

many different sticks and mallets will certainly offer a change in the resultant sound. However, when the violinist sees arco on the page although he has an option perhaps of several kinds of bowing the resultant sound is clear from notations on the page, not so to the percussionist.

2b. INSTRUMENTS, AVAILABILITY - Due to the wide variety of instruments, an important question stated simply is - Do we have the instruments to play the piece? We do not have to look far to see the wide range of instruments needed for many compositions. In John Cage and Lou Harrison's quartet, *Double Music,* the first player is asked to play six graduated water buffalo bells and six graduated muted brake drums. In comparison Warren Benson's *Three Pieces for Percussion Quartet* the first player shall play suspended cymbal, snare drum, triangle, milk bottle, and tambourine. While in the latter example the only item that would probably be any problem in finding would be a milk bottle. In the Cage-Harrison piece, the brake drums and water buffalo bells would offer some interesting problems to almost any high school percussion program.

2c. INSTRUMENTS, SUBSTITUTION - When the question of availability becomes a problem, we must consider the possibility of instrument substitution. Does the changing of instruments alter or in any way change any of the ideas of the composition? Cage and Harrison in *Double Music* make this a simple task, for they suggest to the performer that as long as the kinds of sounds are left intact and the relative sounds between players are kept in mind, any substitution will not hinder the composition. When this is not the situation, a book to which the conductor may refer is *Scoring for Percussion,* by H. Owen Reed and Joel T. Leach. In this book the common instruments are discussed in relationship to sounds and kinds of mallets that can be used on each. Also one can check with the "Substitution of Percussion Instruments" list on page 121 in *Music Educators' Guide to Percussion,* by Al Payson and Jack McKensie. While this list is rather limited, it does suggest some definite possibilities for substitution. When the above list is not adequate for a certain substitution and the composer does not offer any suggestion for a substitution, the conductor must decide for himself what to substitute, and the validity of the substitution in relationship to the music.

3. NOTATION - The existing staff notation often becomes inadequate when scoring for percussion. The common notational system works well to show harmonies and melodies; but when it is asked to show timbre, it loses its effectiveness. In considering percussion music in relationship to notation, there must exist in some form an identification chart of symbols. This is relatively easy when only one instrument is used by each player, but when more than one instrument is to be used, the performer must be able to identify a symbol or a definite space on the staff with a particular instrument. It is essential that this appear before the composition begins, so that the

performer knows what instruments are needed without looking through the entire composition.

Another style of notation which exist (and is often more clear) is line and graphic notation.

Another consideration when looking at the score is that category of unusual sounds. *Chamber Music* by Michael Colgrass calls for playing with fingers on the drums; if this had not been specifically described, there would have been no way to play the part with the contrast in timbre and dynamics desired.

Probably the most difficult aspect of reading a percussion score is looking at the g line on the treble staff not as a g, but perhaps as a cymbal sound, contrasted with a triangle, and a bass drum timbre. Instead of looking at the score for harmonies of some kind, one must see it as timbres.

4. PHYSICAL SET-UP - Due to the tremendous variety of instruments, the physical arrangement of those instruments becomes essential to the success of a performance. In William Kraft's *Trio for Percussion*, which is scored for tambourine, snare drum, and bass drum, the bass drum must be to the rear of the trio or at least parallel with the other two. It would be easy for the bass drum, due to its size, to overshadow the other instruments. Often the set-up is not given and the conductor must decide for himself what will work best.

Because there is such a lack of standardization of ensembles, there will obviously be certain changes during a program with which the conductor must concern himself. If the changes are too immense, possibly the programing needs to be changed or at least revised.

5. DIFFICULTIES - In terms of technical difficulties, there exist several areas which are peculiar to percussion. The most obvious is the immense problem of players having technical facility to perform on many instruments. While certain playing characteristics are common to all percussion, there certainly are mammoth differences between barraphonic percussion and membranophic percussion. The other problem is that of playing a number of instruments not only in the same composition, but treating these instruments as one - i.e., the percussion instrument.

Whereas there are a number of areas that are peculiar to percussion and need to be considered when looking at a score; there also exist certain areas that are common to any media of music. While these may seem obvious, they are seldom discussed in percussion literature. Those areas are the following:

1. PERFORMANCE PROBLEMS - The percussionist, like the string player, must be able to interpret the page into musical sounds and ideas. He must balance his part with the other players of the ensemble and must understand the relationship of his part to the ensemble. As a musician he must concern himself with quality of sound, problems of meters, and the numerous other technical concerns.

2. FORM OF THE COMPOSITION - To understand fully any musical composition, every musician must understand how it is put together - the large overall structure. Within this large structure the ideas must be presented clearly and with a logical conclusion. Points of conclusion can be rhythmically treated, and do not have to be treated in a harmonic fashion. Interest must be maintained through the use of unity and variety of the ideas.

3. KIND OF MUSICAL IDEAS - In any piece it is important to have certain motifs presented, and then to develop or evolve. Percussion ensembles, even when not employing melodic percussion, can use this motivic principle and develop it through the use of timbre, rhythm, etc.

4. PHRASING AND BALANCE - Finally, the ideas of phrasing and balance must exist in percussion works the same as any other media. Phrases must be capable of molding into an expressive art and there must exist a balance between small motives and the large structure, and must maintain interest on a level other than novelty or exotic sounds.

To enable the reader to use these ideas in a practical way in reviewing literature, the following chart is presented:

Guide to Percussion Ensemble Literature Review

Title
Composer
Publisher
Date
Instrumentation (by player)
- 1
- 2
- 3
- 4
- 5
- 6

A. Availability
B. Specific in details
C. Possible substitution
D. Relation to McKenzie-Payson list
- 1. Within list
- 2. In Leach book (readily available)
- 3. Difficult to obtain

Notation
A. Identification chart of symbols
B. Unusual sounds
C. Staff, line, graphic

Physical set-up
A. Sharing of instruments
B. Balance

Technique
A. Comparison of difficulty of parts
B. Technique as an ensemble
    1. Junior High
    2. High School
    3. Advanced High School
C. Performance problems
    1. Meter changes
    2. Reading
    3. Balance
    4. Timpani
    5. Multi-percussion
    6. Barraphonic
A. Form
    1. Large structure
    2. Cadence points clear
    3. Contrast in sections
B. Motivic development or evolving of material
C. Phrasing
D. Balance
Educational aspect (appeal)
Summary

—————————o—————————

Practical Mallet Studies

by Bob Tilles
Professor of Percussion
DePaul University

The diminished 7th scale creates an interesting and tonally different sound for improvising.

The scale has a minor, "Funky" quality due to the use of minor thirds and grace note effects.

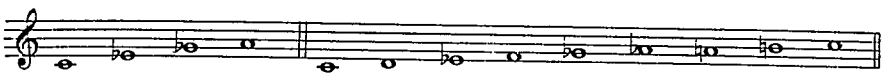
This versatile jazz scale is usually used for improvising dominant 7th and diminished 7th chords, but is also effective for major, minor, and augmented 5th chord improvisations.

III DIMINISHED 7TH SCALES

A diminished 7th scale can be created for each of the three original diminished 7th chords, by adding a whole tone above each tone of the chord.

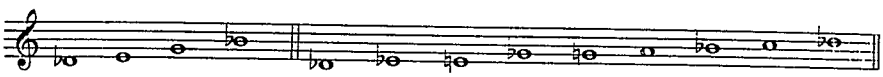
Example - Cdim7

Diminished 7th scale on C



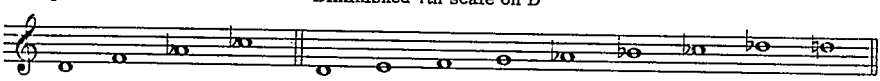
Example - D♭dim7

Diminished 7th scale on D♭



Example - Ddim7

Diminished 7th scale on D

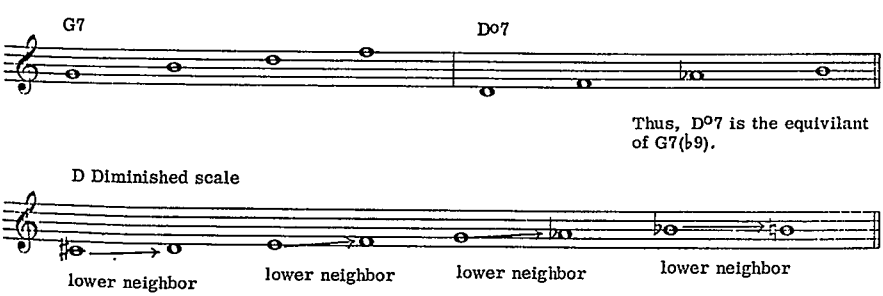


Another approach to the diminished 7th scale is that each chord tone of the diminished 7th is preceded by its lower neighboring tone (1/2 step below) which in turn forms a diminished 7th chord of its own.

The diminished scale is used for improvising diminished 7th chords and dominant 7th chords.

To play a scale on G7, use D°7 as the base of the diminished 7th scale.

Example-G7



Percussion Material Review

by Mervin Britton
Professor of Percussion
Arizona State University

ON page 134 of summer PERCUSSIONISTS the wrong information was given about the Elias Composition. Should be SUITE FOR THREE DRUMSETS Score and 3 parts, $8.

ENSEMBLES

THREE MOVEMENTS FOR PERCUSSION, Ronald Keezer $8 manuscript; Ronald Keezer; Music Dept.; University of Wisconsin at Eau Claire; Eau Claire, Wisconsin 54701

Seven players, including one on drum set are needed for this composition. Except for five timpani, instrumentation is standard for college or a well equipped secondary school. The first two movements use standard notation and have a duration of approximately seven minutes. The third movement uses chance techniques with basic control left to the director. Chance material is taken from sections of the first two movements. While the rhythmic techniques of the first movement are not difficult, there are many meter changes from 1 through 4/4. The second movement involves slow bar and metal sounds. Three measures to a score page along with some copying short hand pose a problem for the conductor. The composition is certainly worthy of better manuscript arrangements.

INTROSPECTIONS, Ronald Keezer $15 manuscript; Ron Keezer as above.

This composition is for narrator, one percussionist, flute, clarinet, trumpet, horn in F and string bass. Wind players double on a percussion instrument. The percussion instruments include drum set, marimba, xylophone, vibraphone, orchestra bells chimes & two timpani. The score is 98 pages of extremely clear, neat manuscript. Poems by Ogdan Nash, ee. cummings, and Dylan Thomas are set to an accompaniment of the above instruments. This is a major work for anyone who wishes to use voice and percussion in a recital.

COMPOSITION FOR PERCUSSION & ORCHESTRA, Ronald Keezer, $30, Ronald Keezer as above.

The duration of this composition for five percussionists and full orchestra is approximately 16 minutes. Marimba, two xylophones, vibraphone, four timpani and drum set are included in the percussion instruments. Notation is traditional, with meter changes and rhythmic groupings kept quite simple. A performance of this composition should be put together with a minimum amount of full orchestra rehearsal. Manuscript for the score is quite neat and clearly reproduced.

RITMO, Siegfried Fink; $7; N. Simrock-Associated Music Publishers, Inc. 609 Fifth Ave.; New York, N. Y. 10017

For seven players, this composition is a medley using a Beguine, Nanigo and Rhumba. The instrumentation is basic Latin American with one use of a gong dipped into water. Performance duration is 3' 40".

BOOKS

TECHNIQUES OF PLAYING BASS DRUM, CYMBALS AND ACCESSORIES (Tambourine, Castanets, Triangle, Tam-Tam), Al Payson; 65 pages; $3.50; Payson Percussion Products; 2130 Glenview Avenue; Park Ridge, Illinois 60068

This book presents practical & artistic basic techniques for performance of the listed instruments. Included in each section is a solo or duet for the instruments along with some standard orchestra literature. Diagrams and pictures are accurate, clear and concise. A table of foreign terms covers damping, where to strike and types of mallets used for these instruments.

STEEL DRUMS, HOW TO PLAY THEM AND MAKE THEM, Peter Geeger; 40 pages; $2.95; Oak Publications; 165 West 46th St.; New York, N.Y.

This is an instruction manual to go along with the Folkways Records, FI-8367 and FS-3834. Extensive diagrams and instruction for preparing and tuning the drums are included in this book, along with pertinent information about performance of steel drum music. Five well known steel band tunes arranged in four parts plus percussion accompaniment are also included.

MALLET PRACTICE ROUTINE, BOOK ONE, Bob Tilles; 22 pages; $1.50; GIA Publications; 2115 West 63rd Street; Chicago, Illinois 60636

The first section of this book concentrates on major and chromatic scale work along with the five variations of the tonic chord-major, minor, augmented 5th dominant 7th and diminished 7th. The second part deals primarily with four mallet chord work in a suggested blues pattern. An LP record is also available to accompany the material in the book.

BEGINNING DUET STUDIES, BOOK ONE, Bob Tilles; 32 pages; $1.50; GIA Publications. Beginning mallet players can use this material for supplemental work.The rhythms and melodic movement are quite simple at first. Later, some triplet material is added. Manuscript spacing is wide, making it easy to read for young students learning to concentrate on a line.

LETS PLAY PERCUSSION, Level 1, Learning Unlimited Audio-Visual Band Series, James Moore; cassette tape and manual $9.95; Hal Leonard/Pointer Publications, Inc. 64 East Second St., Minona, Minn. 55987

This is part of a total series for standard band instruments. It may be used for like classes, private instruction or self instruction. Clear, concise pictures and explanations covers preparatory and elementary instructional material for both snare drum and bar percussion instruments. The first level of 50 short units covers whole down through 16th notes, flam, flam tap, seventeen stroke roll (presented as multiple bounce) and addition of simple suspended cymbal beats with the snare. Tunes for the bar instruments cover the keys of C, F and G. General material includes ties, repeat signs, accents measure repeat signs and D.S. al Fine. Qualities of performance musicianship and sound potential of the instruments are stressed throughout the level.

Level 2, James Moore, as above.

Level two adds bass drum pedal work, triplets, different stroke rolls, ruffs and paradiddles to intermediate work with the material of level 1. The bar percussion moves through keys Bb Eb and D. Crash cymbal work is introduced as is additional music reading terminology. These levels may also be used as supplementary material to any standard text or individual teacher's approach.

Letters to the Editor

I would like to reply to Mr. David Bittner's letter found in the Summer 1972 issue of the *Percussionist*. Mr. Bittner said that he found the use of the multiple-bounce roll on tympani to be useful in certain situations. During my 9 years as a a tympanist I have stuck to the traditional single stroke roll on the tympani. However, Mr. Bittner's point does merit consideration. In my opinion the use of the multiple-bounce roll on the tympani should be limited to playing SOFT (no louder than mp) rolls on the higher pitched drums. Using a multiple bounce roll on a low pitched drum (E to B flat) would serve as a means of choking the true pitch of these low drums. Another, and perhaps the most serious, drawback to the use of the multiple-bounce roll would be that it would be very difficult to either crescendo or to sustain a tone at a loud dynamic level. Hence I conclude that the multiple bounce roll should only be used to sustain SOFT rolls on the higher (C and higher) tuned drums.

Tympany yours
David B. Edwards
365 Amberidge Trail N.W.
Atlanta, Ga. 30328.

Dear Mr. Fluegel:

When will the drum industry design a drum stool that will adequately support the weight of todays drummer?

Such a question becomes necessary because I have developed a chronic back condition, attributed to the inadequate support of the standard drum stool. And in all probability I believe there are also other drummers experiencing such an occupational problem.

According to my doctor the standard stool offers the buttocks no true support and this lack of support could easily develop back problems, by the strain placed upon the vertabrae.

My own condition became so acute that eventually I had to use a folding chair which somewhat alleviated the problem.

I appeal to you, Mr. Fluegel, to request the drum industry to consider redesigning the standard drum stool so other drummers could possibly avoid such a painful experience.

Sincerely yours,

Chet Kurowski

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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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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detach and mail

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