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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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THE SOLO PERCUSSIONISTS' PERFORMANCE LIMITATIONS By Linda Pimentel

During the past two decades percussion has dramatically entered the arena of art music, not as the stepchild of the symphonic associations, but as an innovative, total-sound concept in its own right. Literature for this media has multiplied at an astounding rate. I can remember when I could name practically every available work for a college percussion ensemble. Now my own students have written as many works as we, then, could obtain. Ten years ago the college or university that hired a full-time percussion instructor was considered bold and innovative, now it is just following the established procedure. When percussionists meet composers, the composers shake their hands gratefully. They know who performs their compositions.

Thus, maybe we have arrived at a "Golden Age" of percussion, or have we? Are we following up on the music opportunities available? Are we exploring all avenues of our music culture? I recently received a letter from a high school freshman who had won a spot as marimbist with her tri-county honor band. Her conductor wanted her to perform a 4-mallet solo with the band. Could I suggest possibilities? The shortness of my reply was most embarrassing.

As a traditional classical pianist, having won many awards, and having trained many award-winning students, I am well aware of the formal channels for professional growth that are offered to the keyboard, string, wind, and vocal soloists. Practically every professional soloist in the art-music arena has entered certain series of contests, from his preteen years until he performs in the world-famous competitions when he is in his late teens and his twenties. These contests, with few exceptions, are not open to percussionists. Why?

I am quoting from the entry form for the San Francisco Symphony-Pepsi YOUNG MUSICIAN AWARDS: "Participants may enter only one of four classifications: Woodwind, Brass, String (including harp and classical guitar), Piano. (Instruments standard to the Symphony Orchestra)." What, may I ask, is more "standard" to the symphony orchestra than percussion?

Percussionists have few concerti from which to choose, for such contests. Many percussionists "back off" because of this lack. But with the example of the growth in the area of percussion ensembles clearly engraved in my mind, I reject such reasoning for its near-sightedness. When a college or university began a percussion ensemble, local composers hurried to compose for the new group; when percussionists start soloing with symphonies more composers will write for that combination. We now have enough concerti to begin, so let's get started! Percussion teachers, as you are training the future generation of young percussionists, are you sure that each will have the opportunity to challenge and grow in the area of his musical preference? Or, because we have not fought hard enough, will his objectives be thwarted, his horizons limited? Also, how can you, particularly those of you who have risen to positions of respect and influence, bear to let such inequality, such open neglect flourish among colleagues and professional equals?

I propose that Percussive Arts Society set up a committee to investigate music competitions in the United States and elsewhere as time and information permits. This group should:

1. Compile a listing of major competitions and categorize them.

2. Collect a file of the rules for these competitions.

3. Write and publish a brief but enlightening pamphlet to send to the organizers of these competitions. Many of the financial sponsors are large manufacturing firms that may not be aware. Lets make them aware!

4. Make a listing available to PAS members of all competitions that will accept percussion entries.

5. Set up a card file of interested and well-prepared young percussionists who would like to enter solo competitions.

6. Apply direct and continuous pressure, using our organization, members of their own percussion section, and well-known "names" in music who are sympathetic to percussion, to each major symphony in the United States which has such competitions and does not allow percussion entrants.

7. When a competition "opens its doors", encourage our best students to participate.

CONSIDERATIONS FOR COMPOSITIONS FOR MARIMBA By Allen Otte

The following information represents the beginnings of a new consciousness of what the marimba and marimbist are capable of as a creative and expressive medium. There are a number of composers and performers throughout the world who are actively involved with the role of this instrument in new music, and these notes reflect ideas gathered and discussed over the past year, especially with Prof. Michael Rosen of the Oberlin Conversatory.

The Blackearth group is sending these notes to composers interested in writing for our group, and as such, they are more aimed at composers than at percussionists. I assume them to be quite incomplete, and expect PERCUSSIONIST to be a good forum for their expansion. 1. Assuming the Musser grip for the marimba, (and the 'Burton' grip for vibes, not applicable here) a comfortable position, with hands resting upon the instrument, might give an interval spread as follows.



From this position, any passage may be efficiently articulated at fast speeds without excessive movement of the arms and body over the instrument.



2. Almost any two notes may be sustained while a moving line continues. Double stops of natural notes sound best since the sustained tones here may be executed with the sticks on the edge of the bars, one above and one below.

3. Almost any three notes may be sustained while a fourth voice is in motion; any of the four voices may be either sustained or moving. (the lower bars, being more resonant, make the reiteration less pronounced).





4. The four mallets can be of different materials; e.g. three soft mallets, and one hard mallet for accented notes. (See example from Simon piece.)

5. Sustaining a single tone may be accomplished by rolling with mallets 2 and 3, leaving 1 and 4 free for moving lines; (this technique usually for sustaining sharps and flats) or, with the two sticks of one hand on the edge of the bar.





6. Sustained tones in chords may be executed by two different methods.

"trill" - alternation of single hand strokes, the same with 3 or 4 mallets as with 2.

"tremelo" - used with 3 or more mallets, where they are held loosely, causing them to strike independently.



The trill gives a 'tense' sound and the tremelo gives a more relaxed full sound. (these terms are not standard, and would have to be defined at the outset of any composition.)

7. The center of each bar gives the most resonant response, and the timbre can be significantly varied by moving towards the node. In addition to less resonance, the overtones are emphasized, especially with the use of a hard mallet.

8. There are three basic modes of attack; normal, for maximum 'tone quality'; dead-stroke, to not allow the stick to rebound, but hold it firmly into the bar, stopping all reasonance; and drop-stick, to neither lift off of the bar, nor to press into it, the looser dropping action smothering some of the normal resonance. Finger muffling, especially of the lower bars, is also a useful tool for controlling durations.

9. A certain degree of independence may be assumed, both between the two sticks of one hand, and between the right and left hands. (See example from *BOKU*.)





10. Four mallets can be held at all times, permitting juxtaposition of the preceding types of figures with more "traditional" single lines, which are executed with two mallets.

Careful consideration must be given to the possible combinations of mallets which the performer might have in his hands at any given point in the composition, and also to the time necessary in switching some or all of the mallets.

It is conceivable that five and six mallets could be held at certain times; (exists in some pieces) this is not a very flexible situation and is most useful for specific chords. Ample time must be given for positioning the extra sticks in the hand, and to prepare for the chord intervals.

The basic set of mallets for the marimba might include five clearly discernable categories, with numerous and subtle distinctions available within each category. The basic set, soft to hard, could be: 2 degrees of yarn-wound mallets, 2 of rubber, and 1 very hard rubber, or possibly light plastic or wood.

Given the varying degree of resonance from the bottom to the top of the instrument, the optimum acoustic balance within the instrument would usually require mallets of a slightly harder consistency to be used towards the instrument's upper register; though the composer might keep this in mind, such considerations are best left up to the performer.

Additional resources under 'implement of actuation' include the rattan end of the mallet, hands-fingers, brushes, specially made cluster bars, mallets made with multiple heads, super-ball sticks, etc.

Experiments have been made with the "prepared marimba" -- attaching articles to the bars (a paper clip held on by a rubber band) to produce additional sound resources.



*mallet indications are by the numbers 1 to 5, soft to very hard





SUSTAINING SNARE DRUM TONES BY GARY J. SPELLISSEY

About the Author:

Mr. Spellissey holds a BM in Ed. degree from Lavell State College and is working on a Masters degree at Boston University studying with Mr. Tom Gauger. He has taught applied percussion for eight years and has backed such stars as Betsy Palmer, Jan Pierce, and Leonard Nemoy.

Primitive man discovered and enjoyed rhythmic sounds. Many of these first sounds were probably attempts to recreate noises in nature: the rustling of leaves, the cadences of rain, or the sustained drones of dripping water. Man tried to reproduce the sounds he heard around him. These sounds were many and varied. Charles White states that the musical sounds to be found in nature, of which there are eight (according to the Chinese), are those of skin, stone, metal, baked earth, silk, wood, bamboo and gourds.¹ To create these sounds he used gestures that were natural to him. Hitting, shaking, and scratching were common, everyday occurrences. These physical motions were carried over into man's first experiments with sound:

The desire to beat, shake and scrape the numerous primitive instruments found or invented by early man . . . led to the development of the first instruments of percussion.²

The first percussion sounds to occur, in all probability, were simple taps, objects struck with sticks. This striking motion was a common one for early men striving for survival. One's imagination can run rampant recounting the first sustained percussion sounds. The use of a circular disk-like object with small pebbles inside could have been swirled to create a continuous sound. Man began hitting and shaking many objects to hear which sounds he could produce.

The first encounter with "music" involved just rhythm. Fascinating rhythmic patterns can be developed by just the use of single notes or taps. However, the continuous sound is forever present: the wind blowing, bees buzzing -- all were very natural to man's ears. So, naturally man's endeavors with sound had to include prolonged sounds. The process of sustaining sounds was first utilized with percussion instruments for the simple reason that these instruments were man's first vehicles of sound. An object that we now take for granted, the rattle, had to be devised.

The first rattle-drums were simply dried gourds in which their own seeds provided the sounding agent. Small pebbles were added eventually to increase the sound. . . $.^3$

These seed-filled gourds produced a continuous sound simply by shaking. Through the use of everyday physical gestures a multitude of sounds could be created.

Tracing the early development of orchestral percussion instruments and their use, much of the same situations sequenced by early man are present. In earlier literature, single stroke patterns are predominantly used. Much later, sustained sounds or rolls are used. As the early single stroke patterns were being played, percussionists were experimenting with techniques to prolong sounds. After these techniques were developed, percussionists could sustain tones and actually function in a sense much closer to the other instrumentalists in the orchestra. The process of developing new techniques on any instrument is a gradual one. Experimentation, necessity, and hard work help to promote new ideas. Eventually, techniques of sustaining sounds on percussion instruments were realized. The system of sustaining and notating percussion sounds is still both vague and ambiguous.

Rolling is the term used in reference to sustaining sounds on drums. Each percussion instrument has its own techniques of rolling each unique, but yet each similar in many ways. From this point all references will be made to the snare drum roll. This limitation is made because of the quantity of percussion instruments and their varied playing techniques.

One of the first functions of the snare drum was to maintain a cadence for marching. Marching was an important function, later used as a gauge by composers for the tempo of their compositions. Tempo indications on certain earlier pieces on music read as follows: "To be performed at the rate of marching men." A primary function of the drummer was to maintain a steady pulse to keep soldiers in step. To illustrate the importance of this playing style, the following appeared in an early snare drum method book:

For as military music was instituted entirely for the use, and benefit of soldiers, the greatest care ought to be observed. . . .⁴

Rolls within the military style were called rudimental or open. Because most marching occurred out-of-doors and because of the importance of marching men to hear the drum cadences, this style of playing demanded great volume and projecting power. The size of the early drums were rather large and crude, so playing techniques had to be adapted accordingly. Volume, force and rhythmic drive had to be developed. To fulfill these requirements, drummers practiced and devised a double-stroke roll. This type of roll allowed for volume and out-door rhythmic articulation. George Lawrence Stone describes the military style roll:

The Two-Beat Roll is the pure roll of two beats of either

stick; the first beat struck, the second beat rebounded (bounced). A Beat and Rebound of either stick.⁵



The rudimental roll is based upon a rhythmic background, in this case, sixteenth notes. Actually, the player is playing two beats for each written sixteenth note, which produces thirty-second notes. The drummer relies upon an even rhythmic pattern to gauge his rolls:



Example "a" shows the actual roll notation. The rhythmic breakdown of strokes within the roll is written in example "b." These examples show why the rudimental roll has a measured rhythmic sound.

The rudimental roll technique requires that each hand play the two strokes evenly to produce a smooth, even, measured sound. The two beat articulation with each hand creates a measured texture within the roll. Usually, within the rudimental style, the final stroke of the roll receives an accent for rhythmic impetus. To achieve the desired volume, this style or technique worked well because the execution of the two-beat roll enabled the player to raise his sticks high, thus producing more force and volume. Considering the purpose, volume, and earlier instruments, the military style of playing proved very successful. G.L. Stone had this observation:

The rolls then employed, on a giant parade drum with heavy drumsticks were powerful in nature.⁷

To develop the open style roll certain exercises were invented. The roll was often referred to as the "Mama-Dada" roll. This word pattern was appropriate because it helped to reproduce the sound and rhythm of the two beat roll. When playing the two beat roll each hand has a different sound. The word pattern helps to convey this sound. The roll, and the word pattern worked together.

Initially, this rudimental style of playing was handed down, as any other artisan craft, from person to person, father to son. Eventually, as reading and music notation evolved, this tradition was written down for future reference. The following examples were from a book by John Phillip Sousa:⁸

2 L L J J A [J RR [RR RR) / RR

Sousa wrote this book as an instruction book in playing field music for the trumpet and drum. The book includes Sousa's rudiments of music and basic techniques for the trumpet and drum. References are made to the "Mammy-Daddy" roll. Sousa distinguishes hands by stem direction. The roll exercises are written with the directions to start slowly and gradually increase the speed.

As drummers played fewer military events and more indoor concerts, different demands were made of them. Concert playing required different techniques from rudimental playing. The rudimental or open roll did not produce the sustained closed sound needed in orchestral playing. The open roll with its measure sound proved to be unmusical and cumbersome. A technique for producing a smooth sustained sound had to be developed. The drummer had to produce a sound similar to the trumpet or clarinet players' technique of blowing an even air stream through their instruments, thus producing an even sound. To produce this sound the closed roll proved to be effective.

The major differences in techniques from playing the two beat to the orchestral roll is fundamentally simple. The closed, buzz or press rolls are produced by playing with a greater pressure upon the sticks as they come in contact with the drum head, creating a multiple amount of strokes. With the multiple of strokes played with each hand, more strokes occur in any given space, so the sound of the roll is more dense or compressed. This creates a freedom of strokes within the roll. Rolls are dependent upon tempo, roll length, and roll type. The actual number of strokes within a closed roll is unimportant, because the multiple bounces within the roll cannot accurately be tallied. The closed texture of the roll becomes the most important. Cirone describes an important difference between open and closed rolls: In concert snare drum playing, the roll must always be closed. Rudimental drumming measures rolls, which tends to add a rhythmic element to a sound that was meant to have no divisions.



The above figure can be played many ways, depending upon the tempo. To call this figure just a five stroke roll would be incorrect. At a fast tempo this could be played as a five stroke roll; however, the slower the tempo, the longer the roll must be.⁹

Cirone makes some very good points. First, the open roll adds an element of rhythm because they are measured. With the orchestral roll the number of strokes within the roll is variable. Secondly, the slower the tempo, the greater the number of strokes to fill the given space. The unmeasured closed roll can produce a smooth continuous sound. However, the closed roll, to some extent, diminishes the potential of fortissimo playing.

Technically, the problems of sustaining tones on a snare drum are vast. Many things must be considered: musical style, interpretation, tempo, volume, and actual density of the sustained sound. Mathematics plays an important part in music and especially rhythm.

Rhythm is simply applied mathematics within a set period of time and space. This is not to be misinterpreted. A sound mathematical mind will not make for a good percussionist alone. But, a solid mathematical background will aid in the understanding of ratios; that is, the breakdown of note values and their relation. Many times mathematical devices are used by composers, hemiola or mensuration canons, for example. Likewise, mathematical ratios are used in playing rhythms and rolls. Kozak presents a formula for playing rolls:

"In the many experiments I have conducted, statistics have proven a good roll to consist of 400 W. P. M. + 20."¹⁰

Kozak later explains his experimentation and application of roll ratios: W. P. M. meaning wrist motions per minute.

Similar to using ratios in the performance of rolls, the texture of a roll can be altered by basing the roll upon various rhythmic backgrounds.

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Assume a two beat roll is to be played in the above examples. A background of sixteenth notes, example "a," would produce a roll of sixteen taps within the space of two beats. Sixteen note triplets, example "b," would yield twenty-four taps within the space of two beats. The background of triplets enables the player to play more notes within the space of two beats. Thus, the texture of the roll becomes more dense. Multiple bounce rolls would proportionately increase the density on the roll.

Basically, both the open and closed rolls have been described. Realizing their differences is one problem solved, but an even greater problem arises in deciding upon each roll's particular use. Knowing the playing techniques of both types of rolls is of no value unless the application of the roll styles is also known.

Generally, rudimental rolls are distinguished by their outdoor character or military sound and usage. The closed roll is used within a delicate orchestral situation. Most players are aware of these general playing concepts. Keeping in mind these are the rules that need to be broken, Beethoven wished to create a martial feeling within an orchestral work, *Wellington's Victory*, for example. So, the orchestral player utilizes the open roll.¹¹

Many pieces of music may begin with the phrase "in a military style/manner." This immediately clues the performer as to the playing style of the music. Many concert marches have been written with a tight orchestral roll sound intended. Exceptions to the rule prove to be the most difficult. The player must always listen and be aware of everything around to distinguish how the rolls are to be executed. In many cases, the roll type cannot be decided upon by notation alone.

The acceptance and use of the percussion family is still in its infancy. Only recently have the percussion instruments been really utilized. Because of non-use, percussion notation is at a disadvantage. Roll notation is sometimes both vague and ambiguous. Professional players become aware of the notational shortcomings and automatically compensate. James Moore offered this solution:¹²



Hultiple Bounce

Rolls to be played in a two beat style would be notated as shown in example "a." Closed orchestral rolls would be notated by a through the note stem. With this system the roll type would be indicated by the notation. Although advantageous, this system's adoption is not warranted by its use. The important point is that the problems are now being recognized and attempts at clarification are being made.

Another inherent problem in rolling is the use or lack of use of the tie. Many times a composer notates this within the percussion part that leaves the performer stranded. So the percussionist's judgement must be used to clarify the notational ambiguity.

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Often, the above three types of notation are used to represent the same sustained sound. But, all three notations have different meanings. In example "a," the roll ends just prior to the third beat and the third beat is articulated separately. Example "b" shows a continuous roll with the final stroke of the roll on the third beat. Example "c" shows a roll continuing past the third beat and ending just prior to the next downbeat. Clarification of these notations are difficult. The best possible solution is to listen to what is happening in the music around you. Find out what the other instruments are playing. Listen to the spacing, phrasing and breathing of the other players. Then interpret the notation you have in front of you. Checking with the conductor and/or score, can sometimes be helpful.

An analogy by George L. Stone best expresses the use of open and closed rolls.

Today, the all around drummer finds use for as many degrees of coarseness and fineness in his rolls as there are in sandpaper, each degree dedicated to its particular purpose and type of drums. . . .¹³

This article was meant as a brief exposition on some of the techniques and problems of sustaining sounds on the snare drum. It is by no means all inclusive, but will hopefully give the reader a better insight into the percussionist's problems. Many problems exist. But by listening, studying, and comparing other instrumental parts, many of the problems can be alleviated. Of most importance is for the player to personally play as much as possible to see these problems, encounter, and solve them in order to develop an awareness of his playing. Hopefully, the use of the roll should sustain much interest in the field of percussion.

FOOTNOTES

¹Charles . White, Drums Through the Ages, (Los Angeles: Sterling Press, 1960), p. 22. ²Ibid., p. 19.

Чbid., p. 74.

⁴George Kusel, The Marching Drummers Companion, (Pennsylvania: George Kusel, 1970), p. 27.

⁵George Lawrence Stone, Accents and Rebounds, (Boston: G.L. Stone, 1961), p. 24. ⁶Gary J. Olmstead, "Snare Drum Roll," *Percussionist Magazine*, Vol. VIII, 2, p. 48. ⁷George Lawrence Stone, op. cit., p. 21.

*John Phillip Sousa, The Trumpet and Drum, Reprint (Chicago: W. F. Ludwig Com-+ pany, 1961).

"Anthony Cirone, Orchestral Techniques of the Standard Percussion Instruments, California: Cirone Publications).

"Eddy Kozak, "Roll Ratios," Percussionist Magazine, Vol. VIII, 2, p. 63.

¹¹Albert Payson, Excerpt from Snare Drum in the Concert Hall, (Illinois: Payson Enterprise, 1970), p. 16.

¹²James L. Moore, "A Notation for Double and Multiple Bounce Strokes," *Percussive Notes*, Vol. 10, 3, 1972, pp. 13, 14.

¹³George L. Stone, op. cit., p. 24.

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THE WATERDROPS By Prof. Richard Hochrainer Translated by Dr. Harrison Powley

Dr. Powley is an Assistant Professor of Musicology at Brigham Young University, Provo, Utah and also heads the percussion program there. He earned the B.M., M.A., and Ph.D. degrees from the Eastman School of Music, University of Rochester. While at Eastman he studied percussion and timpani with the late William G. Street, a teacher whose ideals closely paralleled those of Prof. Hochrainer.

Everyone has read in some musicological book that, for the first time in the history of music, Ludwig van Beethoven had the timpani tune to a diminished fifth at one point in the opera *Fidelio*. However, an explanation as to why that occurred is nowhere to be found.

Many years ago, I had the great honor of playing the timpani, in the Vienna State Opera Orchestra for a new production of *Fidelio*. While rehearsing Wilhelm Furtwangler suggested, at that point, in the introduction to the second act: "These blows of fate must sound muffled." In such a situation, the timpanist uses somewhat larger sticks and plays a little more toward the middle of the head, so that the desired effect is achieved.

After the long rehearsal, on the way home in the streetcar, something kept bothering me: blows of fate in diminished fifths? That is impossible. Now the union *f* at the beginning of the Egmont Overture is the call of fate and the unison e that occurs three times in Verdi's *La Forza del Destino* is the knocking of fate. When I arrived at home, instead of eating lunch, I sat at the piano with that excerpt from *Fidelio* and tried to figure out the secret behind the meaning of this world famous part, in order to learn how it should be correctly played. The strings first play a diminished-seventh chord in staccato sixteenth notes, then in sixteenth-note triplets. To this, the timpani plays soloistically the e-flat and A in a punctuated rhythm (Example 1).

Ex. 1. Ludwig van Beethoven, *Fidelio*, act 2, sc. 1, no. 11, Introduction and Aria, mm. 14-16.¹



Despite playing through this passage several times, I couldn't find the solution, so I played through the whole introduction. True, the plano unison f may announce fate (m. 1), but it is written piano because the fate of the poor, imprisoned Florestan is now hopeless. The following high F minor chord in the winds (m. 2), written forte and under Wilhelm Furtwangle always played loud and drawn out, shows us the great sorrow and enormous pain this man has suffered. But what are the diminished fifths doing there? After searching for sometime, I happened to read a description of the scene: "An underground, dark cellar with a cistern covered with stones and rubbish. . . . "² A cellar with a cistern where the walls gleam from dampness and drops of water fall now and then from the lid of the cistern. Then it became suddenly clear. How uncanny that drip-drip, drip-drip sounds in such a room, in a cellar, where there is no other sound to be heard. Surely everyone has heard at sometime the steady dripping of water in mother's old washtub--exactly in a diminished fifth.

The piano f unison, the weak, sympathetic side of fate, the f minor chord, the intense suffering (both measures repeated with changing chords [mm. 3-4]), characterize the imprisoned one. The next measures remind one of the wounds that this noble Florestan had to suffer (mm. 5-10). Later we hear his groaning in the figure played by the strings, but also in the same measure the oboe melody announces the "angel" Leonore (m. 11). And now the curtain should rise. We see the subterranean prison, everything is pitch black, "a ghastly stillness."3 Except for the beating of our hearts in the sixteenth-note rhythm of the strings, nothing is heard (m. 14). Then single drops of water fall irregularly from the cellar ceiling--the e-flat and A of the timpani (see Example 1). In the next measure, the strings play somewhat faster (sixteenth-note triplets), our pulse increases as the timpani plays eighth-notes, the droplets now fall in perfect form. In the following measure occurs the downpour (sixty-fourth notes forte); fearful, we shudder together.

In our intellectual age, one might say that Beethoven wrote all that, only from pure feeling. However, if one reflects a little, it becomes clear that in the prelude, Beethoven carefully understood the situation and the fate of his hero.⁴

FOOTNOTES -- THE WATERDROPS

¹Ludwig van Beethoven, *Fidelio* (Leipzig: Edition Peters, 1957), p. 479. ²Ibid., p. 477.

³Ibid., p. 486.

⁴Translator's note. The tuning of the timpani to the diminished fifth could be easily accomplished even in the early nineteenth century during the intermission between the acts. (The e-flat needs to be retuned to *d* for the next timpani entrance several scenes later.) While Beethoven could have conceived the effect suggested by Prof. Hochrainer, he no doubt was also aware of the inherent harmonic tensions of the diminished-seventh and major-minor seventh chords. The use of the timpani tuned to defining pitches of these chords emphasizes the melodic as well as the harmonic instability and tension of these chords. Note particularly how Beethoven uses the e-flat enharmonically. These factors also help to delineate Florestan's plight.

THE CONSTRUCTIONAL DEVELOPMENT OF THE MARIMBA Irving G. Jacob

(Cont. from PERCUSSIONIST, Vol. XI, No. 3, pg. 127)

Since the marimba doble is chromatic, it contains two rows of resonators, one for the natural keys and the other for the sharped keys. The spaces between the sharped keys are filled with non-functional resonators in order to give a uniform appearance, distribute the weight in an even manner, and protect the other resonance chambers, since the row is compact. These nonfunctional chambers sometimes have ornamental designs and are made of a different type of wood.

A characteristic of the marimba doble is a slight buzzing sound in the lower and middle registers (charleo) which accompanies the notes as they are played. The sound is produced by a delicate membrane taken from the intestine of either a pig or cow. The membrane covers a small aperture located in the flare of each resonator. It is stretched and allowed to dry and then is tied from one end of the flare to the other. The ends are supported with a circle of beeswax. The charleo, or sympathetic vibration, is an extension of tone and is viewed by the Guatemalans as an integral part of its tone quality.⁵¹ The membrane is needed especially in the bass because the notes in this register are naturally weak when sounded, the membrane thus serving as extra amplification. Without this device the marimba doble could not have a practicable bass register.⁵²

Since the resonator's function is to amplify and sustain the tone of the vibrating key above it, it also must be tuned. It must be constructed so that the air column will vibrate at the same rate as its key. The resonator's volume may be decreased by cutting down its sides at the open end. Correspondence of resonance chamber to key is tested by holding the key above the chamber and tapping it with a mallet. If vibration occurs, the resonator is in tune. If no vibration occurs, the resonator then may be adjusted by resealing or loosening it.

After the frame, keys, and resonators are constructed and assembled, the *marimba grande* usually stands seven and one half feet horizontally, two and one half feet high, three feet from front to rear at the bass side, and one foot from front to rear at the treble side. Its companion, the *marimba cuache*, usually stands five and one half feet horizontally while the other dimensions are the same as those of the *marimba grande*.

When making the instrument, a designer may carve a geometrical design according to his own imagination. For example, a marimba

maker might carve a floral pattern on the side the audience views during a performance. He might add a damper pedal in order to preserve the sound for a longer time period, although more instruments are made without it.

The mallets of the marimba doble are known as baquetas. These are wooden sticks about five-eighths of an inch in circumference with strips of crude rubber wound around one end. They are inflexible and are about seventeen inches in length. The most commonly used wood is the huitzicil.53 Like the hormigo, it grows in the coastal regions and must be imported to the highlands, where most marimbas are made. The wood is dry, brittle, and splits easily into long, straight pieces. The mallet heads come in four types. They are: 1) bass (bajo); 2) central (centro); 3) tiple; and 4) treble (piccolo). The bass mallet is about one and three-fourths inches in diameter and produces soft sounds, while the treble mallet is about three-fourths of an inch in diameter, and produces loud and brittle sounds. The dimensions of the remaining mallets fit in between the bass and treble. The types are strictly assigned to specific portions of the marimba and are not used elsewhere. For example, the softest mallets are very effective in the bass range; but in the treble range, where the vibrations are of short duration, the notes would be inaudible if they were to be struck by these same mallets. The treble mallets would be too harsh for the bass range and are not used there unless a special percussive effect is desired. In order of hardness the treble mallet comes first, followed by the tiple, central, and bass. (These mallets apply to the marimba grande. The marimba cuache employs all these except the bass).

The two instruments making up the marimba doble, when played, are placed either end-to-end, at right angles to each other, or in a shallow shape of the letter "V." Usually four men play the larger instrument while three play the smaller one. Traditionally, the players are men, but all-women marimba ensembles do exist. However, there aren't any known ensembles consisting of both men and women.⁵⁴

In Guatemala, as in Africa, marimba playing often is a family institution in which the elders teach the younger family members to play. For example, Hurtado's four sons, Arnufo, Celso, J.B., and Mario first learned to play the diatonic marimba. After mastering this they went on to learn the chromatic one. When their playing was perfected, they made very successful tours of continental Europe and the United States. Two years later, in 1915, the Guatemalan government sent them to the Panama-Pacific International Exposition at San Francisco where they won the highest gold medal of honor and became world famous.⁵⁵

This situation, however, was the exception rather than the rule, for the average Guatemalan player is a skillful technician whose entire repertoire is learned by ear, but his formal music background usually is very limited. His repertiore consists almost chiefly of popular dance music such as the waltz, foxtrot, and Latin dances, with 6/8 as the usual meter. The deficiency in harmonic and stylistic training is obvious when transcribing European and North American music.⁵⁶ For example, a Viennese waltz is not played in the Viennese style, but in the Latin style, with extreme acceleration, crescendi, and long holds on notes of the player's choice. He is best at playing the music of his own country and the performance occasions usually are for dancing. The music is very effective in both rhythmic and melodic appeal.⁵⁷

Each player has an assigned register on the keyboard. One is assigned the melody (piccolo and tiple), another the harmony (centro), and another the bass (bajo). The bass and harmony players of the large marimba hold three mallets, two in the right hand and one in the left. Their parts are harmonic or chordal. The remaining players use two mallets. The piccolo and tiple parts of the larger marimba and the centro part of the smaller one all double the melody in single notes, while the piccolo and tiple parts of the smaller one also play the melody, but in double notes with the piccolo part an octave higher than the tiple.⁵⁸

Players in the upper range produce shrill tones and due to the short vibration duration, a fast roll is necessary, alternating one hand with the other. The *tiple* and *piccolo* positions on the larger marimba are considered the most difficult because these are the melodic positions and both play the same notes an octave apart. This is technically demanding, especially when there are elaborate variations on the melody.⁵⁹

A Guatemalan marimba player is known as a *marimbero*. When playing the marimba, he expresses deep emotion and dedication. This high regard is shared by the marimba designer. In fact the Guatemalan marimba designer expresses his regard by giving his instrument a name and carving it on the front part which the audience sees during a performance. For example, these names have been given to different marimbas: 1) "Maderas de mi Tierra" (Woods of My Land); 2) "Vez de Occidente" (Voice of the West); and 3) "Ave Lira" (Lyre Bird).⁶⁰

After the perfection of the Guatemalan marimba much research was going into the marimba in the United States from about 1910 until 1920. As a result of this research newer marimbas were made accordingly. (It should be pointed out that the United States is the first country to manufacture the marimba commercially. The Guatemalan marimbas are privately made and made to order only). One such new instrument, the *nabimba*, was invented by J. C. Deagan and manufactured by the company bearing his name. Its range was C, three octaves below middle C, to C, two ocataves above middle C, the lowest bass range of any in the marimba family.⁶¹ The resonators were made of nickel-plated brass and were U-shaped. The bars were made of rosewood.

Also from the same company came the *marimbaphone*, a very novel instrument. Its two rows of keys could be turned upwards so that the ends could be played with the bow of a violin, viola, cello, or double bass. The ends were curved inwardly for the reception of the bow, but in their usual position the bars were played with mallets.

Another novelty instrument, the octarimba, was introduced by the Leedy Company around 1938. On this instrument the performer could play in octaves by using the same technique for ordinary playing. It consisted of two bars tuned an octave apart for each note of the scale. Each bar had its own resonator and double mallets were used to sound the two notes together. But all three instruments had to be discontinued due to lack of sales to justify continuing their production. Another reason for the discontinuation was due to an anti-bass attitude rising on the part of manufacturers and musicians.⁶²

Due to the anti-bass attitude, bar percussion manufacturers stopped making marimbas with notes lower than C, an octave below middle C. Around 1920 a new type of marimba was introduced, its construction the same now as it was then. Its range is four octaves, from C, an octave below middle C, to C, three octaves above middle C, and is considered the "standard" marimba in most major colleges, universities, and professional groups in the United States.

Around 1960 Clare O. Musser introduced the marimba whose bass extends down to A, a minor third below the standard C. Other than this the range is the same as on the standard instrument. The company bearing Musser's name is the only one making this type.⁶³

At first musicians would not accept the instrument because they considered it too primitive. One comment (probably referring to the African type) is this:

"The marimba has 'sticks, struck by sticks.' It has exactly 23 'slabs' of wood. It is suitable only for potpourris and slow, cantabile style of music. It has two octaves; has three octaves. It is a drum, a kind of harmonica, a set of musical glasses, and a kind of xylophone. It rests on a 'wooden base.' Classical music is never played on the marimba--that is for the xylophone. In Central America dried fruits hang under each key for resonance. There, the resonators are boards, each covered at the end with a bladder. In due time the 'steel marimba' may win acceptance by serious musicians. A marimba concerto is a 'freak concerto.' "64

(This comment was written around 1918. But still today, there is no such instrument as a "steel marimba").

However, after further observations of the instrument by interested musicians in the field, more positive statements have been made. For example, Musser says:

"Standard compositions of the masters, both of the old and new schools, lend themselves to a faithful interpretation. Chopin's works are suited to this instrument. Modern composers are becoming alert to the individual tone color of this newly improved instrument."⁶⁵

The instrument has gradually won acceptance into performing groups. In fact, compositions have been written for it such as the *Concerto for Marimba and Vibraphone* by Darius Milhaud and *Evocation* by Charles Martin Loeffler.

The standard marimba is constructed almost on the same principle as the Guatemalan marimba doble. The frame is made of various types of wood; but unlike the Guatemalans, who use no metal in their instrument, the North American marimba sometimes may have metal for the legs, and the frame may be constructed out of aluminum alloy. The frame consists of four crossrails set in an almost triangular position, the larger end on the left for the larger keys and the smaller end on the right for the smaller keys.

The keys, most commonly made from rosewood, are cut into a rectangular shape and diminish in size from the bass to the treble end, the largest fifteen and three-fourths inches long and the smallest seven and three-eighths inches in length. The thickness of three-fourths of an inch remains the same in all keys. Tuning is done by shaving, the center portion underneath the bar to lower the pitch, and the ends to raise it.

After the keys have been constructed and tuned, holes are drilled at the nodal points, the points of no vibration. They are drilled crosswise through both ends to allow the supporting string to pass through. Also, like the Guatemalan *marimba doble*, two pegs are placed vertically between each key; but unlike the Guatemalan *marimba doble*, whose pegs are wooden and circular at the top, the North American marimba uses metal pegs whose tops are semicircular. This allows for the removal of the keys in order to simplify transportation. The strings and pegs function to hold the keys above and away from the rails.

The resonators are made of brass differing from those of the *marimba doble* which are made of wood. They are made to vibrate sympathetically with their corresponding keys when struck. The resonators under the diatonic keys gradually diminish in size from the bass to the treble end, the largest being twenty-six and one half inches long and the smallest, one and three-fourths of an inch in lengths. But those under the sharped keys do not diminish in size through the treble end. Instead, they diminish in size through the B flat key, a minor seventh above middle C. The largest is twenty-five and one half inches long and the smallest is fifteen and three-fourths inches in length. The latter length is the same for the D flat key, an octave plus a minor second above middle C. The resonators gradually increase in

size after the D flat key until twenty-five and one half inches is reached once again at the B flat key, two octaves plus a minor seventh above middle C, giving the appearance of an arch. And like the marimba doble, the spaces between the sharped keys are filled with nonfunctional resonators to give the instrument a uniform appearance. But unlike the marimba doble, whose resonators taper to a flare at the bottom, those of the North American marimba are straight from top to bottom, giving the appearance of organ pipes. The resonators of the North American marimba contain no membrane.

The resonance chambers are supported under the keys by metal rails, one for each side, They are placed between the wooden rails and attached to the ends of the frame by two small flat pieces of plywood and two screws (one of each for each end) fitting into holes drilled for this purpose. The diatonic resonators are placed between the two front rails while the sharped ones are placed between the two rear rails.

Transportation of the instrument is very simple since wheels are attached to the bottoms of the legs. One must only go to one end and push the instrument, which is a much simpler procedure than the Guatemalan method of carrying it on one's back. While in place, the wheels can be locked by means of latches attached to them. The only reason why the Guatemalan marimba makers will not add wheels is because metal would have to be employed and they desire to keep the long tradition of using no metal in their marimbas. Were this tradition discarded, transportation would be much simpler.

The marimba has undergone a long period of evolution. From the ancient stones of Ndut Lieng Krak until now it has become a standard instrument of the modern orchestra and wind ensemble. It has gained wide acceptance by modern composers and musicians. In addition to the standard marimba, the bass marimba has been put into wide use among college and university percussion ensembles in recent years. Although it contains approximately the same number of octaves as the standard North American marimba, the range starts from approximately two octaves below middle C and extends to approximately one octave above middle C.

It will be very interesting to see how much further the marimba can evolve.

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Practical Mallet Studies

By Bob Tilles, Associate Professor of Music DePaul University, Chicago, Illinois

In the last issue of PERCUSSIONIST, the blues progression was studied in F Major and F Minor using the basic scales of Major and natural Minor. Only the basic chords of Major, Minor, Minor 7th, and Dom. 7 were used.

To this practice routine, the chromatic and parallel harmonic minor scales can be added plus the MAJ.7, AUG 5th, AUG. 7th, DIM. 7, and Dominant 9th chords.

I 2 mallet practice routine, one or two octaves up and down, using alternate sticking.

Example - one octave up and down.

F chromatic scale 1 #0 0 #0 ie be



II 4 mallets. The next step in the practice routine is the playing of the chords in 4 mallet closed and open positions.

Experiment with other voicings and inversions.



The simple blues progression can be altered with chords studied in the practice routine.

An efficient exercise is to chord the original progression with 4 mallets and then play an improvised chorus, then add the altered chords with 4 mallet chording and improvise another chorus with the new chords. It is important to play the chord background first in order to hear and see the progression, and then to improvise.



NOTE: It is important to transpose and play these exercises in every key!

In the next issue of PERCUSSIONIST, scale improvising will be studied to supplement chordal playing.

0 Percussion Material Review

by Mervin Britton and Sanford Siegel

TIMPANI

PRIMAL MOOD FOR FOUR TIMPANI, Mitchell Peters, \$1; Mitchell Peters 3231 Brenda Place; Los Angeles, California 90068.

As suggested by the title, this composition covers four kettles at a rapid tempo. One of the two pitch change sections could be a problem for young timpanists without a well developed ear. Otherwise, the only technical problem for this short composition is tempo.

CONCERT PIECE FOR SIX KETTLEDRUMS AND STRING QUAR-TET, Linel Nowak, \$6; American Composers Alliance.

While this is a solo for kettles, it boarders on a quintet ensemble. One of the challenges in performance is the blend of drums with the quartet. It is a good length for a chamber concert or percussion recital. **THREE SHORT PIECES FOR FOUR TIMPANI,** Robert Lombardo, \$4.50; Palle D'oro Press; 1040 West Wellington; Chicago, III. 60675.

The four timpani are written over two staves in a way that is difficult to understand the tuning intent of the composer. What is notated does not appear to be consistent with the "hand and pedal" tunings indicated at the beginning of each movement. Otherwise, the two unmetered and one 4/8 movements should not be overly difficult for a junior or senior university recital.

SOLO ETUDE for 4 Kettledrums (pedal), Stanley Leonard; 551 Sandrae Dr., Pittsburgh, Penn.

A college timpanist will find this short musical etude to be of moderate difficulty. The major challenge in this composition is rapid and accurate tuning as the etude progresses through three keys. **METHODS**

RHYTHMIC PATTERNS OF CONTEMPORARY MUSIC, Whaley, Mooney, \$5; JR Publications. Material in this book begins with simple changing meter exercises and progresses in gradual manner to meter modulations. While there are enough embellishments to keep interest, the emphasis is on the rhythmic problems. Advanced beginners could understand and enjoy the early pages and progress as they develop in maturity. Advanced students could use this as a prerequisite to a book as difficult as Contemporary Studies by Fred Albright.

FUNDAMENTAL STUDIES FOR MALLETS, Garwood Whaley, \$4; JR Publications. The first section of this book is designed to allow two pages to each scale up through three sharps and flats. Older students or those who read piano music would find the material more to their advantage than a young beginner. Most of the etudes are from famous composers. Section two is designed for more advanced reading of quality music while section three develops scale exercises which should be studied along with sections one and two.

CHORD STUDIES FOR MALLET INSTRUMENTS, Viola, Delp, \$6; Berklee Press.

The material in this publication is based on Saxophone chord studies in the popular idiom by Mr. Viola. Five basic exercises for each commonly spelled chord plus a section on chord sequences add up to 162 pages of studies adapted to the range of the vibes and marimba. Specific practice procedures are suggested for each chord.

DRUM SET READING, Ron Fink, \$4.95; Alfred Publishers.

The purpose of this book is to give a student some ideas for applying fills and time keeping to the actual music he will see in professional performance. A great deal of informative material is combined with practice charts. While it is all included some students may find it difficult to interpret the transition of exercises to practical application.

THIRTY STUDIES FOR TIMPANI, Vol. 1, 2, 3, Jacques Delecluse; Alphonse Leduc. Most of these etudes incorporate a specific problem given prior to the etude. The three volumes can be used as supplementary material for beginners, intermediate, and advanced students.

TWENTY STUDIES FOR XYLOPHONE, Jacques Delecluse; Alphonse Leduc.

The majority of these exercises covers series of wide skips over the keyboard. They are for advanced players.

TWENTY STUDIES AFTER R. KREUTZER, arr. for Xylophone, Jacques Delecluse; Alphonse Leduc.

Large skips as well as some embellishments appear in this collection. This material is for the advanced performer.

200 DAILY EXERCISES FOR THE XYLOPHONE, Vol. 1, 2, 3, Jacques Delecluse, Alphonse Leduc.

Even volume 1 requires a performer to have good technique before reading these exercises. A valuable extra feature is a special chart of "broken rhythms" which are variations that can be applied to the steady, flowing rhythms of Vol. 1 and 2. Vol. 3 is primarily based on double stop work with some two hand coordination.

COMPLETE METHOD OF VIBRAPHONE, Jacques Delecluse, Alphonse Leduc.

72 pages of material covers history and physical diagrams of the instrument through to four mallet studies. An interesting inclusion is the variety of four mallet positions that are drawn above the chords. Prose material also appears in English.

PORTRAITS IN MELODY, Anthony J. Cirone, \$4; Belwin Mills Publishing Corp.

Those percussionists familiar with *Portraits in Rhythm* will be interested to learn that those rhythms have been set to melodies for the bar instruments. Although most of the 50 studies are written for single line performance, a small amount of 4 mallet and double stop material is included. While the book was not written to be a duet to the snare drum counterpart, many percussionists will find it a challenge to practice them together.

SEVENTEEN STUDIES FOR XYLOPHONE, Francois Dupin; Alphonse Leduc.

These etudes cover a variety of keys and meter signatures including 8/16 and 5/32. Short rests mixed with the groupings are representative of modern xylophone parts. Each duet challenges any two performers' rhythmic ensemble sense. Explanations are in English as well as other languages.

TRAITS DIFFICILES, Felix Passerone; Alphonse Leduc.

This publication is a collection of 32 timpani excerpts from orchestral literature. They are examples of the major problems inherent in the excerpt, but not complete.

TEST, Felix Passerone; Alphonse Leduc.

Written for the kettle drums, this publication is a collection of short exercises to refine musicallity with certain techniques.

TWENTY STUDIES FOR TIMPANI, Jacques Delecluse; Alphonse Leduc.

These fine studies use from two to five kettles. The rhythms and pitch changes place the material in the advance range of performance.

RUDIMENTS REVISITED, Joel Rothman, 29 pages \$3.00; JR Publications, 3 Sheridan Square, New York, N.Y. 10014.

This book, consisting of sticking exercises combined with rudiments, is designed to strengthen rudimental technique.

PERCUSSION FUN, Ronald T. Hakala, 47 pages \$2.50; Pro Art Publications, Inc., Westbury, L. I., New York.

This book is designed to be used as a method book for young beginners or as supplementary material for other methods. All of the exercises have parts for two, three, or four players. While many of the etudes have parts indicated for a variety of percussion instruments such as wood block, cow bell and bass drum, others are left to the discretion of the teacher. The method progresses slowly with a great amount of playing material for each new item.

PERCUSSION EDUCATION CLASS METHOD, F. Michael Combs, \$3; Advance Music,; 501 Kendall Road, Knoxville, Tenn. 37919.

As suggested by the title, this material is primarily lecture style presentation of information for the general public school teacher. Although it is a recent release, some rather important PAS reference material is omitted as is material on drum set, some common Latin American instruments and tam tams. A public school teacher might find the most useful area of this book to be the collection of lists covering percussion dealers, methods, performance literature, recordings, and foreign terms.

Letters to The Editor

Percussive Arts Society California State University Northridge Campus Northridge, CA.

Congratulations, in your selection to the hall of fame of the late Gene Krupa, Morris Goldenberg also James Salmon and Harry Partch. In memory of Gene Krupa (a living legend) may we have a moment of silence for his contribution in generating the dignity and recognition we the drummers enjoy today. God Bless you Gene. We all love you. Personal regards to officers, members and guests.

Roy C. Knapp

Dear Mr. Fluegel:

I am enclosing a check for \$7.00 for my 1974-75 dues (student). I would like to take this opportunity to commend and thank the PAS for their fine publications. I've only been a PAS member for a year and have been delighted. The publications really keep me informed. Thanks.

Kurt Risch 610 Randolph St. Misbicot, Wis. 54228

Dear Mr. Fluegel:

Enclosed is a check to cover my membership dues for the coming year.

I also want to express my gratitude because your manuals have been very rewarding to me in expressing the fabulous world of Percussion.

Mr. Angelo Janvzelli Music Educator Combs College of Music Philadelphia, Pa.

Dear Mr. Fluegel:

I, Claus B. Jensen am a percussion player in the Royal Danish Orch. in Copenhagen. Besides playing, I teach percussion at Gladsaxe Music school and Blagardsemirarium, a state school with percussion where you teach school teachers. In Gladsaxe we started two years ago and have done about 30 concerts since, which included 15 drum clinics in the schools, where I speak about percussion instruments and music and the students play ensembles.

We have been very lucky that the schools have been able to give us instruments from the start, so we could play ensembles from the beginning.

I'm sending you a little tape that is recorded from some of our concerts, so you can here what we are doing.

The reason I'm writing to you is because I hope that we could get in touch with other groups in America of our standard. The students I teach are from 12 to 18 years old. The older students want to be members of PAS. The reason that not everybody wants to be a member is that they are not able to read English before they are about 14 to 15 years old, but they can talk a little when they are 12. Two of the students want to go to a summer camp in America if it's possible. One of the boys is playing the solo piece on the tape and he also plays the bongo part in Three Brothers. So, if you could help me to get in touch with some camps and give me some information of what we have to do and how much it would cost, I would be very happy.

I'm sending you 20 dollars for my own membership in PAS and if you have or know of some ensembles that are for school teachers that are not going to be percussion-players and are not very good readers, I would be very glad if you would send it to me or tell where I can buy it. I will also asu you to send me some of your magazines with applications for membership. I am looking forward to hearing from you and I hope that we can accomplish a lot of things together in the future.

Yours sincerely, Claus B. Jensen Lundemosen 57 2670 Greve Strand Denmark

Dear Mr. Fluegel:

Someone is badly misleading school percussionists and their innocent but unaware music directors as to what constitutes beautiful and proper sounds from their percussion instruments.

Indeed, through painful personal experience (or inexperience) and observation from many viewpoints, both close and distant, of typical school and university practises, I would say there is no sense of tonal quality or even how it is achieved. And this situation is not completely due to the naivety of the student or his director. It is so often the case that moden percussion equipment bought from our large manufacturers, even when new, does not or cannot produce good sounds. And further, so many so-called percussion educators have offered such faulty or misleading information, at least information so different from what I was taught from the masters with whom I've studied, that at best, it badly compromises an art in which one must not compromise. Have expediency, show, and profit so totally replaced what should be noble and beautiful?

The Shortcomings

The large companies have cheapened their products to the point where it is difficult to obtain good instruments. For example: calfskin heads are virtually impossible to obtain. I personally have had orders specifying calf turned down by our leading manufacturer. What they offer instead is a thin plastic head on a drum of dubious quality; you generally have to tighten the drum unnaturally tight to get response and to eliminate that ring from the plastic, so that the sound you end up with is too high pitched with no resonance; truly, the sound must be described as "plastic." Or else you find students stuffing their drums with all sorts of rags, felt, and stuff, so that the resultant sound is a permanently muted drum. And the problem is that you have little choice; you must accept this excuse for a tonal aesthetic in place of the beautiful deep and rich tone that comes from easily tensioned drums with good calfskin heads. The timpani and timpani sticks on the commercial market are equally unmusical in standards. The metal is thin (so is the tone), the heads are plastic, the sticks are ill designed, usually too heavy with extremely low quality felt and workmanship. The wrong size drums are advocated. They've tried to replace copper bowls with fiberglass ones, and lately they've tried to phase out rosewood bars on xylophones and marimbas too!

One must now turn to custom-made instruments, like the timpani of Mr. Light and Mr. Hinger or the triangles of Mr. Abel, in order to secure instruments of beautiful and expressive tone. Or (and band directors with budget problems take note) one can turn to old instruments, often advertised for sale privately in the want ads (Deagan xylophones and other mallet instruments of circa 1920-1930); often they can be had more cheaply than new instruments and are often of *much* higher quality. The commercial timpani sticks, even those endorsed by men of reputation, usually cannot produce a satisfying sound and are hard to play with. I confess I don't know what to recommend in lieu of these sticks; the best solution is to learn from a leading master of the timpani, how to make sticks. In this way one can depend on himself for standards in this regard.

My next complaint concerns advertising claims that are so distorted and misleading on out-and-out tall tales. For example: Plastic heads never sound better than high quality calf (on good to average days) as most companies would have you believe. Streamlined, fiberglass timpani with shallow bowls never sound better than beautifully cared for old German-style drums, yet one preposterous ad would have you believe this! One manufacturer claims gigantic ranges for his timpani, octaves and the like, but he doesn't describe the quality of most of those notes. No kettledrum I know of has uniform quality over the entire compass of its range. The lowest tones on a given drum tend to be flabby and indistinct and the highest tones are usually choked. Good timpanists recognize this and avoid these extremes in range even to the point of doing more pedaling in order to get the best quality note on the best choice of drum. In other words, you don't put a low F on a 28 inch drum when you have a 32 inch drum to put it on, even if you have to make a quick pedaling on the 32 to achieve it.

Some percussion education manuals suggest a starting set of tim-

pani with diameters of 28 and 25 inches. In actuality, I wouldn't recommend either size. A low F on a 28 is practically non-existent, likewise a Bb on a 25. And if I remember correctly, F and Bb are the most common tunings in high school bands. I would suggest a 29" (F or F # to C or C #) or 30" (E or F to Bb), and a 26" (Bb or B to F) as better choices, for the quality of the low notes is much better. The best set of four drums would be 32" (Eb or E to Bb), 29" (F to C #), 26" (B to F), and 25" (C to F #) or 24" (D to G or G #) on top. A 23" is just too small to sustain a good E,F or F#—so unless one would need the high G# and A a lot, the larger drums would be better.

Finally, I must qualify some of what I've said with a paragraph entitled "Expediency versus Quality." To say that I do not use some of the innovations I decry, would be as untrue as to say that all the innovations are not beneficial. Plastic heads are a miracle at times, when the weather is an important consideration. As a matter of fact, the highest quality plastic head, when properly cared for (as you would any calfskin head), sounds as good as a mediocre calf head.

But somehow, our drum corps and our preoccupations with the outdoor band and its need for expediency have been brought indoors and our schools and colleges have developed some sort of strange standard by it! This standard of sound is not only too low for the concert hall but out of place in it. It is nothing like the beautiful sounds produced in the sections of some of our leading orchestras; but this is the ignorant plague of our art — flash and shine outsell quality and beauty; and I hope that this state is not irrevocable.

Sincerely, David Davenport Percussion Coordinator, University of Kentucky Student of Cloyd Duff and Rey M. Longyear



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