



COLTS FRONTENSEMBLE BOOK



Thank you for your interest in the 2017 Colts Drum and Bugle Corps Percussion Section! The purpose of the audition is to assess your Ability and Attitude while providing an enjoyable and educational environment for everyone attending.

This is an exciting time as we look to continue the Colts recent successes and move forward toward even higher levels of musicianship and performance. It will take a highly motivated individual, fueled by maturity, integrity, and discipline, to perform as a member of Colts Drum and Bugle Corps. This said, we welcome your audition!

We are all familiar with the product drum and bugle corps offers, but it is the process that brings it all to light. Logistical information for the camps will soon be released. A more detailed explanation of technique for each section will be given at camp. The posted exercises should be the focus of your preparation for the audition camps. They are basic in nature and are designed to focus on fundamentals. More complex exercises and arrangements, as well as more detailed technique language, will be layered in over the course of the winter and spring camps.

The primary goals of the camps are to orient you to the standards, techniques, and approaches we employ, and secondly to evaluate skill sets. Each of you will be assessed individually and given constructive feedback. Please familiarize yourself with the exercises and the language used to supplement them. We place a great deal of emphasis on the musical/visual relationship and you will be held accountable for physical preparedness.

If you have any questions, please feel free to email me at b.t.pyles@gmail.com.

Section specific questions can be directed to the following faculty:

Oliver DeLotto - Snares, oliverdelotto@gmail.com

Andrew Barlow - Quads, andrew@barlowpercussion.com

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Chelsea Levine - Cymbals, levinechelsea@gmail.com

Greg Tsalikis - Front Ensemble, gregtsalikis@yahoo.com

See you at camp!

Benjamin Pyles

Colts Drum and Bugle Corps

Percussion Caption Head

Grip and Stroke

Two-Mallet Grip

Begin by wrapping the fourth and fifth fingers (ring and pinky) around the shaft of the mallet with the fingers extended, curling the fingertips into the upper padding of the palm. Then, ball the fingers into the heart of the palm by bringing the knuckles into the fist position. The firmness should be stable enough to harden the bottom, or heel of the hand, yet still maintaining a loose frame for the end of the shaft. The middle finger will rest comfortably above this, lightly resting on the large padding below the thumb. There should be a range of 1 to 3 inches of mallet underneath the bottom of the fifth finger. This is the base of the grip, and will never be compromised.

Now place the thumb and forefinger on the shaft, so the tip of the thumb is directly opposite of the forefinger's upper crease. This will create a gap between the forefinger and middle finger when held comfortably, and depending on the performer, the gap should average near $\frac{1}{2}$ to $\frac{3}{4}$ of an inch.

Gripping the mallets this way, it is revealed that the back fingers aid the wrist and arm, supplying power to the stroke. The thumb and forefinger are controlling the mallet and providing accuracy, as well as aiding the downward pressure included in the stroke. Often, playing without the aid of the first two fingers ensures the power of the stroke is adequate, reassuring the fourth and fifth fingers never leave the palm.



Stroke

In an amplified setting, it is important to achieve the appropriate sound acoustically before projecting it through the system. Therefore, the emphasis will be on obtaining a certain degree of articulation and depth, especially through high-density phrases. Quality of sound is paramount.

The definition of the stroke will remain consistent in its purest form, but different variations will be employed throughout the production. The basic stroke can be defined as such: high velocity strikes through the target; initiated by the elbow and powered by the wrist. Because of the nature of a keyboard instrument's surface, the result of the stroke is not a rebound, but simply a Reaction. Since there is no "up-stroke", the mallet will return to the extended position as a result of the velocity at the initiation of the stroke. Best stated, as a Reaction. The speed of this Reaction will depend on the desired speed and weight of the stroke, and the height of return will be a result of the following note. The goal is to have total unification from performer to performer, condensing the stroke concept into one motion.

Holding the mallet, begin by positioning the arm perpendicular to the body and parallel to the ground. Moving your forearms into this position should require as little motion from the shoulders as possible to reduce tension in the upper torso. The elbows are held slightly away from the body, but only enough for a strong frame, not enough to create tension. Also, be sure the elbows are not pulled back or forward, but are in line with the torso, again, creating no additional tension. Finally, the palms should be flat enough to the floor for the player to see both pinky knuckles on the outside of the hands. If there is any strain on the top and insides of the forearm, the palms are rotated too far flat and should remain more natural and relaxed.

Keeping your back fingers buried in the palm and the hands 1 to 2 inches higher than the target, bend the wrist upward to full extension. Now raise the forearm from the elbow 2 to 4 more inches above the current position, creating a vertical extension of the mallet. This position is vital in performance, as it is where the mallet starts and stops before and after a full stroke.

From here you can strike the instrument with the wrist, initiated by dropping the forearm. The assistance in height provided by the elbow joint will add density to the sound. It is important to remember a few key things when practicing this technique:

- Play stronger with velocity, not force
- Play through the target
- Keep the back fingers in the palm
- Allow the mallet to react appropriately
- Stay relaxed

The end of each stroke will hold in the extended position until the principal performer lowers their mallets (usually, within a common subdivision after the release). This will ensure uniformity throughout the ensemble performance and emphasize the extension of the assignment beyond the music.

Targeting

Striking zones vary from the center of the bar to the toe, and the preferred zone will depend on desired articulation. The exact center of the bar over the resonator will produce the fundamental pitch, limiting the harmonic tuning following the initial tone. As the strike is moved further off-center, accompanying harmonics will become more prevalent. Determined by the needs of the excerpt, the proper targeting will focus on the zone of the bar direct center over the resonator for faster passages in the upper tessituras, and the lower range and slower strokes will favor an off-center approach, enhancing the body of the key supplied by the harmonic tuning. Protocol for basic technique will start in the center for exercises, but will be changed for needs of the assignment.

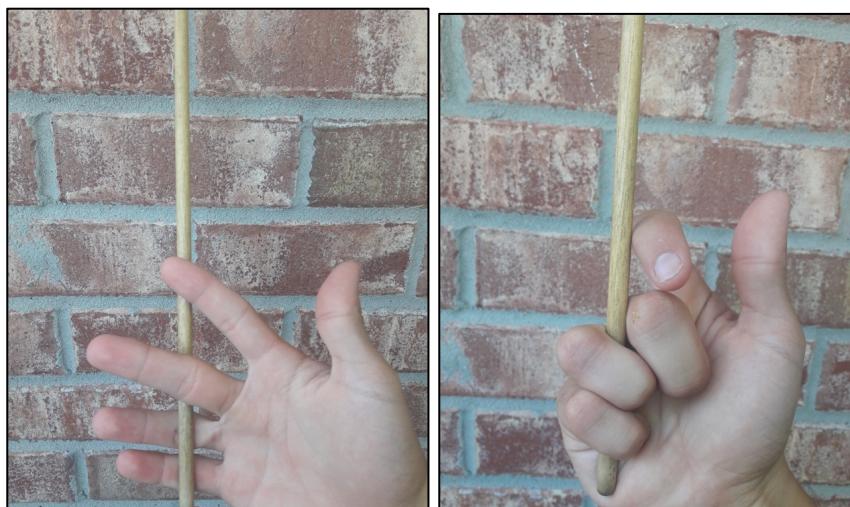
With proper two-mallet technique, the ability to play with both mallets in the same area of the bar (zone) can be obtained through proper reaction velocity. Playing in split zones on one bar, or “stacking”, will be avoided. As the mallet returns to the extension height, it allows space for the alternate mallet to strike in the same zone. During fast passages on adjacent notes in the same manual, the zones maintain a straight line throughout desired targets.

When striking the target, aim below the surface of the bar. The energy put forward will yield the appropriate reaction of the mallet head to its desired position. As the height of the initial stroke reduces, the target beneath the bar surface increases proportionately. At the lowest of heights, it is important to achieve the highest level of individual sound quality by targeting proportionally lower than the existing playing surface. Essentially, the lower the starting height, the lower the target.

Stevens Grip

Begin with the outside mallet:

- Place the end of the shaft in the pinky and ring fingers on the crease above your palm.
- Wrap your pinky and ring fingers around the mallet.



- Wedge the mallet in between your ring finger and middle finger so that the shaft rests just behind your middle finger's middle knuckle.



- Check to see that the shaft of the mallet is flush with your palm; there shouldn't be any mallet sticking out of the back of your palm.
- Flatten your wrist and check the angle of the mallet. It should be at a 45 degree angle.
- Turn your wrist so your thumbnail is facing the ceiling. Your outside mallet should be at its set position.



Inside Mallet:

- With the outside mallet still in your hand, make a fist as best you can.
- Lift up your index finger and thumb.
- Place the tip of the mallet shaft under the tip of your middle finger. The mallet should be supported by your middle finger, and the fleshy part of your thumb.
- Rest the mallet on the first knuckle of your index finger.



- The thumb rests on the mallet shaft directly above your index finger.
- Avoid pulling the index finger in. You should also avoid bending your thumb at the knuckle.

At this point, your mallets should be on an even plane.



Double Vertical Stroke

The double vertical stroke is defined as: both mallets from one hand striking at the same time, creating a double stop. Much like the two-mallet grip, the double vertical stroke begins and ends in the extended wrist and raised arm position. Keeping the thumb facing upward, ensure that both mallets are striking the instrument at the exact same time, guaranteeing a projected sound of two simultaneous notes. It is important to incorporate the use of the arm in each of these strokes, as the wrist turned upward will have a more limited range compared to when the palm is turned downward via the two-mallet grip. Different performance styles will dictate how much the arm aids the wrist, but for default purposes, the ratio will be 80% wrist 20% arm at fortissimo. Do not allow the wrist point to exceed the mallet height at the point of contact with the bar, as this will result in an inarticulate strike with the crown of the mallet.

Outer Mallet – Single Independent Stroke

To ensure a quality sound, it is vital to adhere to the regulations of the attack and react principles when using the single independent stroke. The basis of this motion is wrist rotation only, with additional arm incorporation in some specific cases. The outer mallet should start over the desired target and move directly downward into the bar, and then back to its original position, all in one motion. This rotation is based on the axis of the inactive mallet, as if the non-performance mallet shaft was sticking out of a wall. So, in theory, the inactive mallet head should remain still, should there be no arm motion.

Inner Mallet – Single Independent Stroke

The concept for the inner mallet rotation is the same as the outer. The mallet moves in a direct pathway to the target and back, all in one motion. The axis of rotation, however, is not exactly around the outer mallet, as this would round the pathway of the inner mallet too much. Instead, the axis of rotation is around an invisible line drawn through the middle of the hand that extends up through the forearm. During this motion, the outer mallet shaft can move slightly at the base of the mallet, but the outer mallet head remains absolutely still in space. This allows for the most efficient and effortless possible stroke.

For the majority of the time, all four mallets should remain at a constant and even plane at the top of the stroke. There are a few exceptions, however. When performing fast single independent stroke passages with inner mallets, a lower outside mallet height, compared to the fully extended position, is required. This height difference is a result of relaxing the outside fingers slightly, and not using extemporaneous energy to hold the outer mallet tightly. During these “inner only” passages, the outer mallets are simply a little looser in the hand, as to not waste energy where it is not needed.

Lateral Stroke

The lateral stroke is the quick performance of two consecutive single independent strokes in the same hand with one much larger motion from the initiating arm. It is required in fast permutation patterns and lateral rolls. One key element to the stroke is the transfer of energy from mallet to mallet whilst ensuring the inactive mallet is in the extended position. The way to accomplish this technique is by using the arm-drop once for both strokes, much like a rudimental drummer performs a double stroke. As the mallets are poised to perform the lateral stroke, the wrist will rotate slightly in the direction of the first performing mallet. This will provide extra room for rotation of the second performing mallet. When practicing, enforce the regulations of the stroke by starting each second stroke of the lateral from the extended position. Also, keep in mind that the transference of energy from the first striking mallet to the second must be accommodated by the extended starting height of both mallets. Remember to let the stroke roll from mallet to mallet, and listen for evenness of sound. When performed correctly, the mallet heads should create a “waving” effect from the smoothness of the arm and wrist initiate.

The Look

The image of a front ensemble varies with different techniques and philosophies. Our image is one similar to the symphony orchestra percussionist. The strength of our ensemble comes from our persona of professionalism and confidence. That being said, it is important to keep in mind what role a strong frame and uniformity play.

Feet

To facilitate the need of movement behind the instrument, the feet must be "at the ready" to stride in either direction. During close range performance, the feet should remain in a closed third position when the body is not in a lunge. When using four mallets, the feet should accommodate the zones throughout the phrase, including a spread stance for passages with spread voicing. Expand and contract with the range of the part, but return to a closed third position upon completion. Less movement is less room for error, so find a lunging position that works for as large a range for the excerpt as possible.

The same principle is in effect for vibraphones. Usually the right foot is placed on the pedal at all times, but some passages will require a left foot pedaling procedure. The stride comes from pivoting off the pedal foot and placing the other foot in the necessary positions, whether it across the pedal foot or behind for passages at the extreme end of the instrument.

Frame

A strong back and upright posture will ensure an appearance of confidence and create a look of girth throughout the ensemble. Swelling the chest and pushing it forward attain this uniform position, while the shoulders are pulled back to an angle nearly perpendicular to the head. To maximize width, always maintain an aggressively obtuse arm angle between 90 and 120 degrees. This posture will match the marching ensemble of the drum corps, creating a more unified look throughout the entire ensemble. Keeping the shoulders broad will provide a wider range of motion for the arms, and add width to the appearance of the performer.

Chin

Perhaps the most important element of the frame, the chin is to remain parallel to the ground as often as possible. Lowering the chin impedes visual communication from the ensemble, as well as diminishes the line of sight to the width of the keyboard manual. The concept in head position is to look towards the center through the attack, then use only the eyes to glance down at the instrument periodically.

Starting Together

As there are no “tap-offs” in performance, we will begin each exercise and repetition the same way: establishing a pulse within the performers and raising the mallets to the board and performing an air-stroke (or “Prep”), which reacts to performance extension. This technique will be applied at the beginning of repetitions and during tacit intervals.

Pulse

Pulsing throughout the ensemble offers an opportunity to maintain time while playing, and preps are not available. A simple bending of the knees, and pulsating weight to the balls of your feet, will act much like a mark time would for marching members. It should be tasteful to the style of music and the drum corps’ intention of visual focus throughout the show.

The Prep

The air-stroke employed will resemble the ictus of a conductor’s baton. The zone where the mallet will react to performance extension will be 2 to 3 inches above the first notes for both hands. The start of the stroke will occur from a slightly raised position from the ictus, providing just enough space to create a micro-stroke and reaction to performance extension. Although most of the prep stroke is the reaction, the stroke is still initiated by a downward motion, eliminating any need to define “up-strokes.”

Starting Sequence

The sequence will begin with a pulse establishment from the principal performer. After pulse is properly established, the performers, with mallets at their side, will raise the elbows one subdivision before the mallets are raised to the board. The arms will push down and the mallets will take an efficient path to the initial playing position over the span of two subdivisions. Once in this set position for the duration of one subdivision, the mallets will strike the ictus point and begin the motions from the prep described previously. A constant visual connectivity between the principal and the instrument must be maintained. Often, proper initiation will include aligning the body with first notes struck. Then, check the principal for pulse through the elbow initiation. As the mallets are raised, the head will move to the instrument for a final check for proper targeting. Lastly, the prep and first notes will be performed with the head turned toward the principal. All of these steps will create a smooth and efficient way to begin each exercise or excerpt, and maintain a solid connection to the center of ensemble pulse whilst doing so.

Remember these key points to the prep sequence: Elbows, Arms, Set, and Prep. In most cases, in an eight count prep sequence, the Elbows will initiate on count four, the Arms on five, Set is on count seven, and the Prep is one count before the first attack on count eight.

Choreography

Our performance goal is to create ultimate consistency, not only from player to player, but also from repetition to repetition. In order to do this, not only must each member commit the same motions to each portion of the performance, but each emotion as well. The more detailed and defined the performance becomes, the more consistently the ensemble rehearses. This applies to all segments of the performance, including before and after, as well as during the tacit sections.

Effortlessness

Above all, the most important element to uniformity is how all parts, no matter how difficult, are performed with a certain degree of ease. In achieving uniformity and attitude, all performers must present the appearance that the repertoire is under supreme command. Never will a group that struggles to play difficult passages have the same effect as an ensemble that intimidatingly achieves perfect control combined with optimal muscle usage. This level of control takes time to develop, and is only acquired after the experience of repetition reflects in the performance.

It is, perhaps, the single element that separates good front ensembles from the elite, and must be understood by each member from the beginning of the season.

Rehearsal Tips

Work Smart

Rehearse rehearsing well. Remember that. Like strong technique, intense rehearsing over long periods of time takes practice. There is no substitute for strong will, and it never comes naturally. No matter whether you are alone, or with the entire drum corps, practice with a purpose. The group most prepared will succeed every time.

Individual Practice

Use three tempi for every exercise or excerpt. The first tempo bracket should be a perfect performance tempo through excessive repetition, in which there is a consciousness existing in between each stroke, reaction, and shift. The second bracket will be difficult to establish a consistent performance until after several attempts, resulting in a near 60% success rate. Finally, the third tempo needs to be beyond the capability of the performer, but within the capacity to make it through the excerpt with limited stopping and starting. This bracket should result in a 5% to 10% success rate. With proper data collection, these three tempi can be monitored daily and will provide the performer with a reasonable rate of increase to achieve desired results. Performance tempo should ultimately be categorized in the first tempo bracket.

Slow Mechanics

Slow Mechanics is a term used to describe one of two types of slow practice. It should be a pure technical rehearsal with the quickest of reactions and shifts that results in a performance usually at or near eighth to quarter tempo. This rehearsal technique is to ensure that all rhythms, targets, and heights are absolutely correct. It is not intended for gradual increases of rehearsal tempo, but to define the exact measure of a technique required.

Slow Motion

Slow Motion practice is a type of rehearsal technique that utilizes the same amount of energy at maximum performance tempo, but is performed down tempo with a slower speed of reaction and stroke initiate. This type of practice is much like slowing down the playback of a video and is ideal for long gradual increases of tempi. As techniques tend to change from traditional slow practice to performance tempi, it is key to understand the importance of maintaining the same technique and relaxedness at both the slow and desired tempi.

Etiquette

Understand there are many ways to achieve excellence in front ensemble performance. Please keep an open mind and be respectful of your surroundings. Once rehearsal has started, refrain from making statements or requests, but limit yourself to asking questions to staff or the member leaders. We are happy to help everyone reach their full potential, and we'd like to keep the channel between educator and student as clean and efficient as possible.

Remember to have this manual on your person at all times. Whether digital or hard copy, there are many instances when you will need to refer to these instructions in order to achieve maximum development. When first learning the exercises, understand this manual and the music go hand-in-hand. Use the descriptions from each section pertaining to what you are practicing much like having an educator observe your performance. Definition is the keystone to success, and knowing your identity as a performer is a vital first step. Have fun in your performance, and don't be afraid to try the exercises in as many settings and permutations as possible.

Legati

Greg Tsalikis

The musical score consists of four staves of music, each starting with a treble clef and a key signature. The first staff is in G major (no sharps or flats). The second staff is in A major (one sharp). The third staff is in E major (three sharps). The fourth staff is in C major (no sharps or flats). Each staff contains a series of eighth-note chords and eighth-note patterns, primarily consisting of quarter notes and eighth-note pairs. The music is in common time (indicated by the number '4' at the beginning of each staff).

etc...

Quality of the Scale:

Major Scales
Natural Minor
Harmonic Minor
Melodic Minor
All Ecclesiastical Modes
Octatonic (WH & HW)
Whole Tone
Pentatonic
Minor Pentatonic
Blues
Diatonic 3rds (13 Scale)

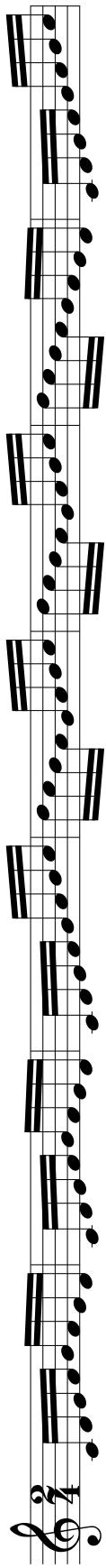
Progressions:

Chromatic Ascending
Chromatic Descending
Circle of Fourths
Circle of Fifths
Diatonic Ascending
Diatonic Descending
Diatonic Circle of Fourths
Diatonic Circle of Fifths
Arpeggiated

Scales

Greg Tsalikis

Var. I



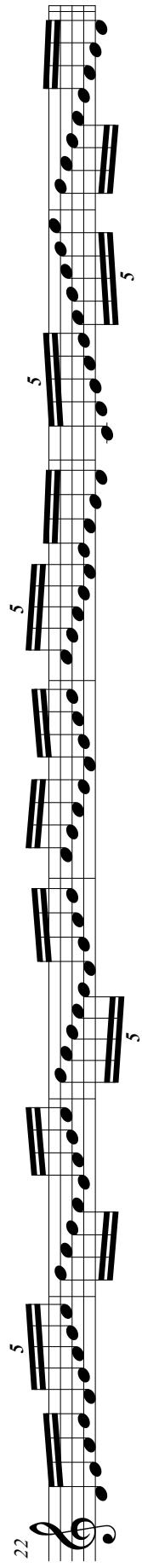
Var. II



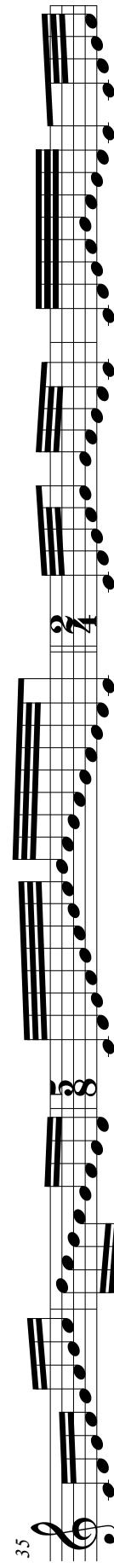
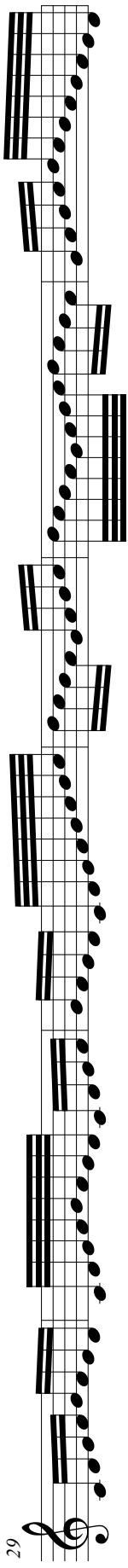
Var. III



Var. IV
29



Var. V



40

A musical staff in 2/4 time. It features a treble clef, a key signature of one sharp (F#), and a common time signature. The staff contains a series of eighth-note pairs and sixteenth-note patterns, primarily consisting of F#, A, C, and D notes.

Var. VI

45

A musical staff in 4/4 time. It features a treble clef, a key signature of one sharp (F#), and a common time signature. The staff contains a series of eighth-note pairs and sixteenth-note patterns, primarily consisting of F#, A, C, and D notes.

49

A musical staff in 4/4 time. It features a treble clef, a key signature of one sharp (F#), and a common time signature. The staff contains a series of eighth-note pairs and sixteenth-note patterns, primarily consisting of F#, A, C, and D notes.

Var. VII

54

A musical staff in 2/4 time. It features a treble clef, a key signature of one sharp (F#), and a common time signature. The staff contains a series of eighth-note pairs and sixteenth-note patterns, primarily consisting of F#, A, C, and D notes.

60

A musical staff in 3/4 time. It features a treble clef, a key signature of one sharp (F#), and a common time signature. The staff contains a series of eighth-note pairs and sixteenth-note patterns, primarily consisting of F#, A, C, and D notes.

66

A musical staff in 3/4 time. It features a treble clef, a key signature of one sharp (F#), and a common time signature. The staff contains a series of eighth-note pairs and sixteenth-note patterns, primarily consisting of F#, A, C, and D notes.

Var. VIII

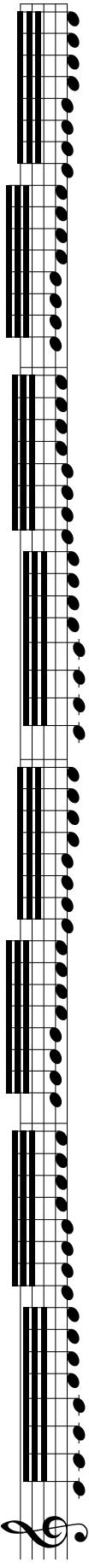
72 78 83 88 94 101

Var. IX

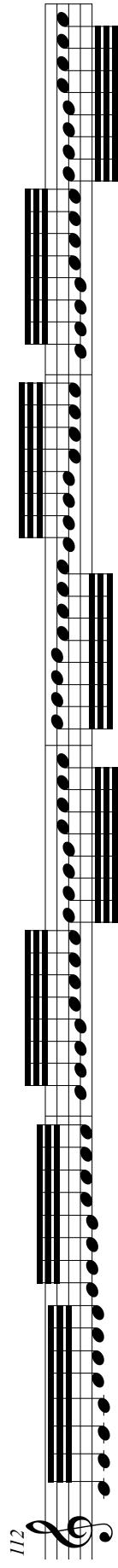
9 15 21 27 33 39

Var. X

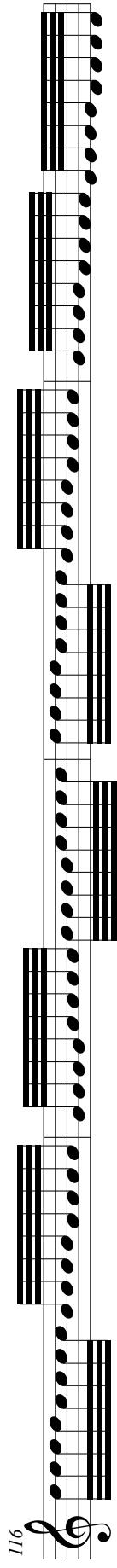
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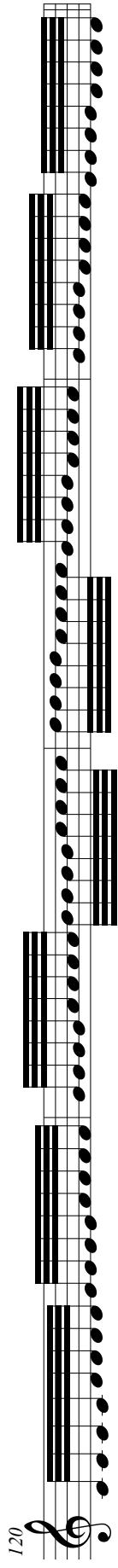
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116

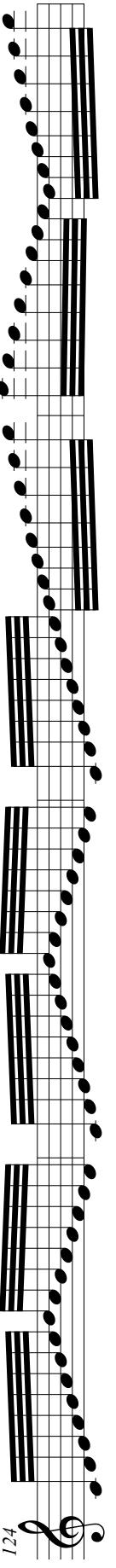


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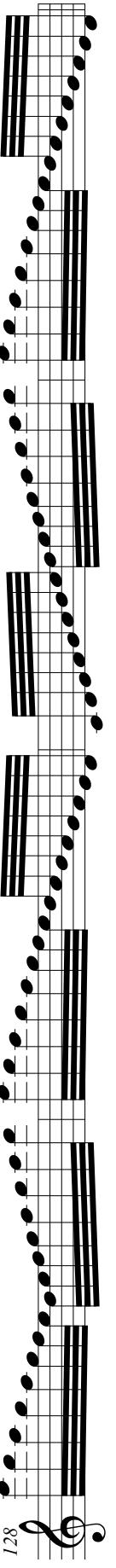


Var. XI

124



128



Scales

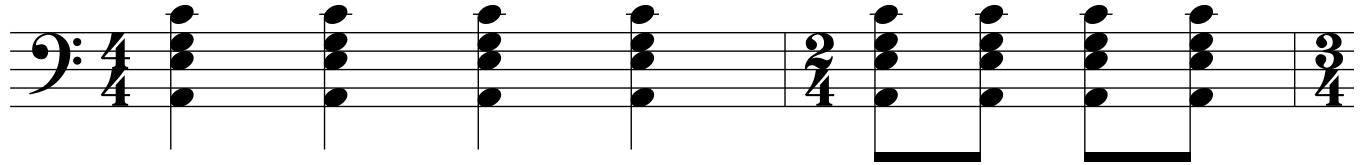
5

Var. XII "Gear Changes"

The sheet music consists of four staves of musical notation for a single instrument. The notation is primarily composed of eighth notes and sixteenth notes. Above each staff, there are markings consisting of three horizontal bars with a '3' or '5' written above them, indicating gear changes. The staves are separated by vertical bar lines. The first staff begins at measure 132. The second staff begins at measure 138. The third staff begins at measure 144. The fourth staff begins at measure 149. The music is in common time, indicated by a 'C' at the beginning of each staff.

SRT

Greg Tsalikis



3

4

5

4

7

4

9

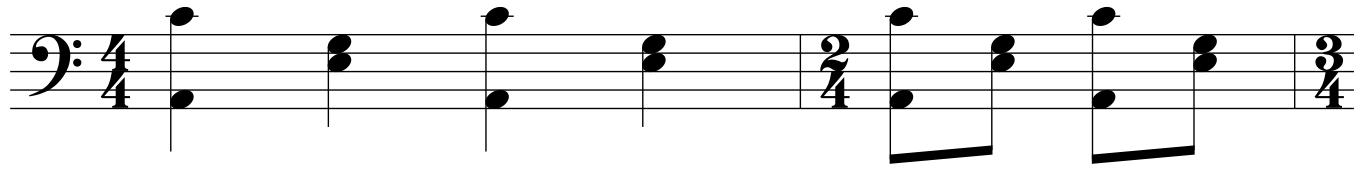
4

11

4

SRT 14-23

Greg Tsalikis



3

Musical staff in bass clef, 3/4 time. Shows a bass line with eighth-note chords and sixteenth-note patterns. The measure ends with a bass note and a chord.

5

Musical staff in bass clef, 4/4 time. Shows a bass line with eighth-note chords and sixteenth-note patterns. The measure ends with a bass note and a chord.

7

Musical staff in bass clef, 4/4 time. Shows a bass line with eighth-note chords and sixteenth-note patterns. The measure ends with a bass note and a chord.

9

Musical staff in bass clef, 4/4 time. Shows a bass line with eighth-note chords and sixteenth-note patterns. The measure ends with a bass note and a chord.

11

Musical staff in bass clef, 4/4 time. Shows a bass line with eighth-note chords and sixteenth-note patterns. The measure ends with a bass note and a chord.

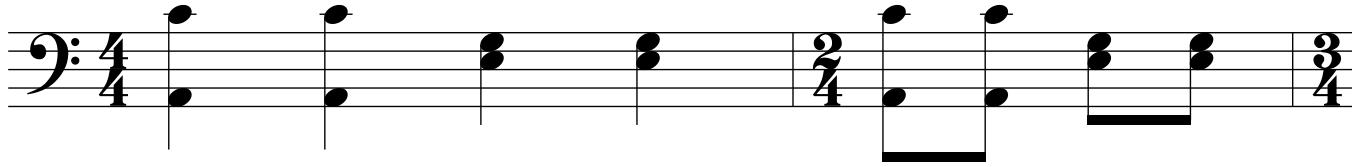
SRT 4-1-3-2

Greg Tsalikis

The sheet music consists of six staves of bass clef music. The first staff begins with a 4/4 time signature, followed by a 2/4 time signature. The second staff begins with a 3/4 time signature. The third staff begins with a 4/4 time signature, followed by a 3/4 time signature. The fourth staff begins with a 4/4 time signature, followed by a 3/4 time signature. The fifth staff begins with a 4/4 time signature, followed by a 3/4 time signature. The sixth staff begins with a 4/4 time signature, followed by a 3/4 time signature.

SRT^(SRT)

Greg Tsalikis



3

Musical staff for bass clef, 3/4 time. Shows eighth-note pairs followed by eighth-note pairs. Measure number 3 is indicated above the staff.

5

Musical staff for bass clef, 4/4 time. Shows eighth-note pairs followed by eighth-note pairs. Measure number 5 is indicated above the staff.

7

Musical staff for bass clef, 4/4 time. Shows eighth-note pairs followed by eighth-note pairs. Measure number 7 is indicated above the staff.

9

Musical staff for bass clef, 4/4 time. Shows eighth-note pairs followed by eighth-note pairs. Measure number 9 is indicated above the staff.

11

Musical staff for bass clef, 4/4 time. Shows eighth-note pairs followed by eighth-note pairs. Measure number 11 is indicated above the staff.

TAYW

1-2-3-4

Greg Tsalikis

A musical score for a right-hand drum exercise, consisting of eight staves of music. The music is in common time (indicated by a '4' in the top left corner) and uses a treble clef. The notes are primarily eighth notes, with some sixteenth-note patterns and grace notes. The score is divided into measures by vertical bar lines. Below each staff, a sequence of numbers (e.g., 1 3, 1 3, 1 3) provides a rhythmic or performance guide for the player. Measure numbers (5, 9, 15, 19, 23, 28, 35) are placed at the beginning of their respective staves.

TAYW

Triple Lateral Inner Lead

Greg Tsalikis

The sheet music consists of six staves of musical notation for a single instrument, likely a wind instrument. The notation is in common time (indicated by a 'C') and uses a treble clef. The music is divided into measures by vertical bar lines. Below each note, there is a number indicating the finger used to play it. The numbers are grouped in pairs under each note, such as '2 3' or '3 2'. Some notes have a '3' above them, indicating a triple lateral lead. The first staff starts with a measure of eighth notes followed by a measure of sixteenth notes. The second staff begins with a measure of eighth notes. The third staff starts with a measure of eighth notes. The fourth staff begins with a measure of eighth notes. The fifth staff starts with a measure of eighth notes. The sixth staff starts with a measure of eighth notes.

TAYW

Triple Lateral Outer Lead

Greg Tsalikis

The sheet music consists of six staves of music for a single player. The music is in 6/8 time, indicated by a treble clef and a '6/8' symbol. The notes are primarily eighth notes, with some sixteenth-note patterns. The first staff starts with a measure of eighth notes followed by a measure of sixteenth notes. Subsequent staves show various rhythmic patterns, including measures of eighth and sixteenth notes. Measures 13 and 21 each contain a repeat sign with a double bar line. Measure 21 concludes with a single vertical bar line. Below each staff, a sequence of numbers (1, 4, 1, 4) is repeated, likely indicating fingerings or stroke patterns. The music is divided into measures by vertical bar lines.

The Grid

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The sheet music consists of 12 staves of sixteenth-note patterns. The time signature is 4/4 throughout. The key signature is one sharp. The notes are grouped into vertical columns of four, with each column containing a different sequence of note heads. The patterns are organized into measures numbered 1 through 22. Measure 1 starts with a descending sequence: 1 2 3 4, 1 2 3 4, 1 2 3 4, 2 3 4 1, 2 3 4 1, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 3 4 1 2, 3 4 1 2, 3 4 1 2, 3 4 1 2. Measures 2-6 continue this pattern with variations: 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4; 4 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4; 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4; 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4; 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4. Measures 7-11 show more complex sequences: 1 2 3 4, 1 2 3 4, 2 3 4 1, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4; 3 4 1 2, 3 4 1 2, 3 4 1 2, 3 4 1 2, 3 4 1 2, 3 4 1 2, 3 4 1 2, 3 4 1 2, 3 4 1 2, 3 4 1 2, 3 4 1 2, 3 4 1 2, 3 4 1 2; 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4. Measures 12-16 show further variations: 1 2 3 4, 2 3 4 1, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4; 4 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4; 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4. Measures 17-21 show the final sequences: 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4; 4 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4; 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4. Measure 22 concludes with: 4 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 3 4.