

- I. The Point of this Document: A definition, explanation, and defense of a practice process.
 - A. This process is designed to provide a musician with guidelines for the goals of practice and a process for practicing to achieve these goals. It attempts at every step of throughout the process to explain the goal behind each step or tool so that the steps do not seem arbitrary and are not done mindlessly.
 - B. The goal of this process is to discover as much as possible about the musical aspects of a new piece and to make as many interpretive/musical decisions as possible before addressing physical (technical) aspects of its performance on the instrument.
 - C. The process then attempts to provide different tools (visualization, singing, rhythmic practice, slow practice, memorization exercises, etc.) for achieving on the guitar (and possibly applicable to other instruments) the musical, interpretive, and expressive decisions determined in the earlier parts of the process.
 - D. The ultimate goal of this document is to increase the speed of the learning process by quickly and effectively making interpretive musical assessments of a piece through analytical tools and score analysis methods that allow one to hear and understand the music before playing the instrument or listening to a recording. The process then takes one through stages of actually physically learning a piece using practice tools I have learned through lessons with teachers, videos of great players talking about their process, and method books that discuss how to practice. The goal is to achieve the musical goals determined in the beginning of the process as quickly as possible.
 - E. Another element of this practice method is to create a process that helps with memorizations by giving the brain more to associate with. If you have analyzed a piece and learned to sing it you will often find that when playing from memory, and especially during a memory slip, you have other associations that help you remember than simply visually seeing your hands move or the feeling of the motions. Its easier to remember a measure of music as a chord shape of open C or a G lydian scale than it is to remember the notes in the measure individually. Often novice guitarists spend so much time putting the notes on the staff in order that they miss the larger shapes they imply or the exercises they did that match whats in the music. Analysis often illuminates this. When you learn to sing a piece, your inner ear often guides your hands when performing as you have associated sounds with physical actions. The same is true for normal memory of every day life, which can both be triggered by and bring back taste, touch, smell, sight, hearing. The more ways we learn something, the easier it is to remember, an idea supported by the study and science of learning (SOTL).
 - F. Another element of this process is to brake the act of practicing down into individual problems. Often teachers prescribe time spent practicing as the fix to all problems. If you can't play it, practice more. Alternatively it is often said that more focused practice is more beneficial. It is the assertion of this process that the effectiveness of practice, not time spent, is the key to success. This processes goal is to create a guide for how one might practice more effectively by defining what "focused practice" means. In order to create effective practice, one must identify general problems and then create specific solutions for those problems. In other words, what problems do most performers run into

- most frequently, and how can one solve them? For example, if I am having trouble with the rhythm in a phrase, what techniques can I use to focus on and fix just that problem?
- G. It can't be understated how important it is to think of technical decisions as results of previously determined musical decisions (although your perspective on interpretation may evolve as you spend time with a piece). Technique serves the music, it is not an end unto itself (some strength trainers have a similar view in regards to competitive weightlifting: competition based on lifting makes no sense, as lifting weights should be done to make the body more effective at daily living or sports).
- H. As the student advances, elements of this process may be adjusted or removed or additions may be made to suit the individual. REMEMBER TO TEST AND INTERNALIZE THIS PROCESS BEFORE ADJUSTING IT.
- I. A student's first piece or pieces should follow this practice method. Only after those initial pieces are learned well using this process should a student consider themselves ready to create their own process. Otherwise the student risks not knowing what tools from this system work for them and what does not work for them because they did not try everything and give it enough time.
- J. I think many teachers are afraid to offer students their practicing process in an organized format because they fear they are imposing their perspectives or process on their students. Many musicians seem also to be unaware that they have a process because their process is so internalized that it is subconscious. I also think its a cultural issue within music: we ascribe talent or time spent practicing to so many problems we have in performance when it is actually how we spend our practice time that is the greater problem. We also let the culture of music as an "art" prevent us from viewing music as trade like engineering or welding that has skills that can be more methodically taught (perhaps a holdover from 19th century attitudes about art and artists). There is also a valid argument that what works for one musician may not work for another. These attitudes create the reluctance of many musicians to systematizing the practice process, but I can't stress that this document is not meant to determine how a student practices for the rest of their life. It is a guide for how to approach a piece for a beginning student, and the student can and should modify it to suit themselves after they have thoroughly attempted all the tools offered in this system.
- K. I struggled to understand how to practice, and I see my students struggling too. Clearly a system to get them started could be helpful.
- L. This process is informed by my own practice experiences, observations of difficulties my students have had, tips from multiple eras of method books from Sor to Iznola as well as non guitarists, and lessons with Christopher Kachian, Andrew Zohn, Rene Izquierdo, Robert Sharpe, Angelo Favis, Jeff Thygeson, Jeffrey Van, and a host of videos I have watched by great guitarists who at times have provided examples of how they develop or "work up" a piece of music.
- M. Please see the forest through the trees. Its not always about how many times you do some of the things within the roman numerals or how you accomplish it, its about solving the problems the roman numerals highlight (example: how do I visualize, how do I learn to hear it in my mind? Answer is solfegge and visualization exercises.)

II. Goals of this Practicing Process

- A. The goal of section III is to use analytical tools from music theory, aural skills, and sight singing courses to internalize a piece and develop interpretive decisions about a work before touching the instrument. By the time this section is completed, students should have a strong grasp on the piece simply by having spent so much time looking at the score and doing analysis. The performer will also have some idea after section III of how the music will sound and have some interpretive ideas in mind so that they are not starting from scratch when the physical practice takes place. In later stages of memorization this process also gives students other things to latch onto (harmonic analysis, phrase analysis, rhythm analysis) that are beyond simply repetitive physical (“muscle”) memory of the fingers that relies solely on the feeling of the motions and the visual experiences of the motions.
- B. The Goal of section IV is to create fingerings in the left and right hand before trying to play the piece. The goal of this stage is to create fingerings that lead to the expressive choices from section III. This should be done with the guitar only grabbed to confirm fingerings discovered through visualizing all the possible fingerings while looking at the score. This part of the process also allows a performer to see in the mind what will be done physically so that when they sit down to play a phrase for the first time they have already played it in their mind.
- C. The time spent visualizing the interpretive decisions, rhythms, sounds, and physical motions a performer will make through analysis, singing, and visualization/fingering (sections III, IV, V, and VI) create a rough draft of the piece in the mind so that by the time the performer begins physically practicing the piece they have already ran through the motions in the mind and heard a rough draft of the music with their voice through visualization tools. If you practice without any preconceived interpretive decisions, you are learning the note locations but not practicing the phrasing. The motions of just hitting the notes are not the same as the motions used to play the notes with phrasing, so you are working harder by starting with the notes and then relearning it later when you add phrasing.
- D. By the time section III, IV, V, and VI are complete, the performer should already have spent so much time looking at the score, imagining the motions, and hearing the melodies that they will have a strong idea of what their physical practicing will look like, what problems need to be solved, what spots are most difficult, and what the music sounds like that learning and memorizing will come more quickly.
 - a) Remember, part of the benefit of analysis is to see the physical actions in your mind. If the score is outlining in notes the standard fingering for an open A minor chord, or if a scale passage is a scale you have practiced many times, your hands should form those patterns quicker, and memorization should come faster because you already know the content. That is the point of exercises like scales and transpositions of chords or chord progressions.

- E. The ultimate goal is to memorize the music. Because guitar music is difficult to sight read, ultimately we should see memorization as the ultimate goal of any practice regiment, as the score is just a reminder of content you have already learned and at least partially memorized (although sight reading is a very valuable and possible skill, it is beyond the scope of this process).

III. Analysis

A. Historical Background.

1. The value of diving into the historical context of any piece of music is different for each player, but most great players have at least some background knowledge of the composer and the culture that created the composition. I would suggest with each piece pretending like you were going to write a two page paper of background information for each piece/work learning not just about the composer but the culture of that composers time including
 - a) Performance practice.
 - b) Music theory.
 - c) Compositional methods from that time period.
 - d) Composers biography.
 - e) Major historical events and cultural trends around the time of the composers life.
 - f) Important philosophical views of the culture and musicians from that period.
 - g) The function the music played when placed in its original context (why would someone have played it and where and for whom did they play it for?).

B. Analysis of the pieces structure and phrases.

1. Mark large sections, phrases, and sub phrases using letters and numbers (A, a, 1, Roman Numerals, etc.).
 - a) Give the measure number to every line's first measure so things are easy to refer to.
 - b) Be on the lookout for 2, 4, 6, 8, 12, and 16 bar phrases and sub phrases. (some of this may become more obvious or refined after harmonic and melodic analysis)
 - c) Note major key changes.
 - d) Note any double bars
 - e) Note large sections/phrases in which the meter has changed.
 - f) Note any melodic sequences.
 - g) Scales being used (major, minor, harmonic minor, melodic minor, pentatonic, diminished, whole tone, the modes of the major and melodic minor scales).
 - h) Note any 2, 3, 4 voice counterpoint.
 - i) Note any long contrapuntal melodic lines.
 - j) Note any harmonic progressions.
 - k) Note changes in harmonic rhythm and phrase rhythm in phrases and sub phrases. (This may become more obvious after harmonic and rhythmic analysis).
 - l) Note significant differences in texture between phrases or sections.
 - m) Note any rhythmic figures or patterns that are prevalent in a section.

- n) Note when different phrases or sections share, repeat, or vary any of the features mentioned in the above list. Look for large structures like ABA, ABACADA, AABA, 32 bar form, 16 bar form, 12 bar form, etc.
- o) Are there any Codas, DS signs, etc.
- p) Learn any unfamiliar language, like musical terms from other languages, signs for dynamics or style, etc.
- q) Learn any relevant performance practices from that time such as when to use slurs, or when to ornament.
- r) Be aware of or write in the appropriate use of the following: Accents, Strong Accents, Tenutos, Brief Tenutos, Stacatto, etc..
- s) This is all stuff to be constantly thinking about. Some of it will be obvious right away, some of this may become more clear as you continue through the followings sections. You should do the analysis section phrase by phrase (roughly 4-8 measures), but sometimes the length/location of the phrases will be more apparent after analysis, not before.
- t) Also note that analysis helps you with technique. If you find a scale or chord progression in a piece that you have worked on in technique exercises, learning and memorizing that portion of the piece will come more quickly.

C. Harmonic, melodic, and rhythmic analysis.

1. Note in writing the harmony in each phrase.
 - a) Determined the underlying harmony of each measure.
 - b) Use slash chord notation like in jazz (it is easier to see than numerals).

2. Analyze bass and melody in each phrase:
 - a) How many melodies/lines of counterpoint are there? Counterpoint features at least two voices prominently. Where are they?
 - b) Play individually somewhere on the neck where you will not play in your final rendition of the piece (or on another instrument):
 - (1) The bass line
 - (2) All melodies/contrapuntal lines
 - (3) This step lets you hear each line individually and will help you identify the phrasing of each line. This is useful in dense contrapuntal works like Bach. Sing the notes using fixed chromatic do Solfeggio as you play.
 - (4) See if you can create a hyper metric feel for each phrase just through singing the rhythms un-pitched. If you find it, practice it a few times.
 - (5) Is the phrase rhythm or harmonic rhythm even or uneven?

3. Rhythmic Analysis
 - a) Sing each phrase without pitches, focusing on just the rhythm.
 - b) See if you can identify phrases simply by the rhythmic structure you are observing.
 - c) This may be a part of step 1 of this section.

- d) As you find the beginnings and ends of phrases, note in each phrase
 - (1) Phrase rhythm (how many measures is each phrase). Do different phrases in a section have different lengths (for example: one is 6 measures long, another 4)?
 - (2) Does it have sub phrases: $2 + 2 = 4$ bar phrase, or $4 + 4 = 8$ bar phrase, $3 + 3 = 6$, etc. Mark large sections in square boxes with letters and their measure length. Mark phrases with the letters of the section they are in and subscripts denoting the order they are in the section and along with a number denoting their length their length. Mark sub phrases with circles, or don't mark them and use circles for phrases.
 - (3) Can you create phrasing through this rhythmic singing by crestings strong and weak relationships (accents and unaccented) on the level of the half note?
 - e) Mark large sections with letters in rectangles (A, B, C), phrases with subscripts denoting their order within the section (A1, A2.), sub phrases as necessary. Give the length of each section/phrase in a circle within the box for that phrase/section.
4. Note what the score says for the following musical aspects. If the score does not give any indications for these or if indication is limited, see if you can develop a rough idea of the following musical aspects before playing:
- a) Style
 - b) Mood
 - c) Tempo (mark both the quarter note, half note, and whole note speed).
 - d) Dynamics
 - e) Shape
 - f) Articulation
 - g) Tone Color (think about this as if you were orchestrating and pretend you are assigning different instruments (tone colors) to different phrases).
 - h) If you can make some of these decisions before playing, you will incorporate these actions into your physical practice, as apposed to learning where the notes are physically and then relearning that section with slightly different physical motions in order to achieve these musical elements.
 - i) Try doing the exercise where you sing the rhythms in each phrase unhitched, but this time adding some these musical/interpretive elements.
 - j) Note any words you do not understand in the score and look them up (especially expression markings in other languages).

- D. IMPORTANT: Steps IV-VIII should be done in large sections, sub phrase by sub phrase, starting from the end of the piece or section.
- a) Going by sub phrase ensures you do not try to tackle too much at once.
 - b) It also ensures you are considering whole phrases or sub phrases when making musical and technical decisions, not just fixing a problem in one measure while neglecting how it fits with what comes before or after.

- c) Starting from the end of sections and phrases and working backwards is a technique David Russell uses. He says in a guitar talk with Benjamin Verdery on YouTube that it helps because every time you add something you are heading towards somewhere you already know, versus just marching forward into unlearned territory.

IV. Visualization of rhythm and learning to sing the piece. (Techniques in this section are great if your sight singing and solfeggio are not strong enough to do letter B)

A. Sing just the rhythm of the passage and clap it while using a metronome.

1. Tap both feet to keep time (unless its odd meter). Moving more of your body helps you stay in time (this is a drumming technique).
2. Try singing the rhythms with the metronome set at the half note, then the whole note, then the double whole note per minute. This helps create phrasing and hyper-meter so that your playing does not sound metronomic. The goal of phrasing is to create accent patterns within the higher time scales (half note, whole note, and double whole note). If you can't do this, set your metronome at the tempo you want to practice at but set it to half, whole, and double whole notes per minute and practice just tapping quarter and eighth notes to these longer clicks. This will help you improve your time and your phrasing. As you do this, change how you accent. Experiment. The more you can keep time with these longer clicks, the better your time and phrasing will be.
3. Try using rhythm syllables: 1 and 2 and... 1 e and a 2 e and a, or ta ta ta ta, **takadimi**. Or just da da da da.
4. The following words can be used to achieve certain rhythms because of the number of syllables in the word (similar to how pitches have syllables in fixed DO). You can take out syllables that correspond to rests if you are practicing portions of the passage with rests.
 - 1 Life, Love, one, on, no.
 - 2/4 purple, perfect, pizza
 - 3/4 Chocolate
 - 4/4 takadimi, television
 - 5/4 University
 - 6 overpopulation, capitalization, Mesopotamia
 - 7 unconventionality
5. Sing the general contour of the melody, the pitch does not have to be perfect.
6. Try singing the rhythm again, but this time set your metronome to the performance tempo at
 - a) Whole Notes Per Minute
 - b) Double Whole notes per Minute.
7. Do this 3-5 times, by the 4th time try to do it with your eyes closed.

B. Used fixed or unfixed solfeggio and sing the bass and melodies individually while playing these parts on the guitar in a spot other than where you will finally play it.

1. Always include singing in every practice session.

2. The following exercises are meant for learning to sing while physically playing, but I recommend you simply learn to fixed chromatic do solfegge a piece before fingering it or playing it on the instrument).
 3. Do this until you can sing the bass and all melodies from memory without playing them on the guitar.
 4. This should take you about five-ten repetitions. The last five repetitions should be done without looking at the scores and even better without playing the notes on the guitar at the same time. Try closing your eyes and singing it.
 5. Be sure to sing all the parts while accompanying yourself with the harmonic realization you have created .
 - a) This makes sure you got the harmonization right.
 - b) It also allows you to hear the individual parts more as part of a whole and hear how the melody and harmony are codependent.
 - c) Often the fingerings of the harmony are close to the fingerings you will use when actually playing the passage, so its preliminary physical practice.
 6. You may forget how to sing parts by the next day. This is ok!
 7. You incorporate singing into your practice until you can sing the whole piece from memory without the guitar or music in front of you.
 8. You can also add singing the unfixed do solfegge, or singing the letter names, or the fret numbers, or the integer notation numbers for each note.
- C. Rene Izquierdo could sing back to me with fixed chromatic do solfegge syllables a Dowland piece and a Bach piece I was playing; neither of which he had played before. He could also sing pieces he had not played in over ten years using fixed DO. He said he usually learns the main melody using fixed chromatic do and does so while he practices the piece or in some cases before he starts physically practicing the piece.
- D. My guitar teacher in Minneapolis could sing pieces he had learned years ago without syllables.
- E. When I was playing the prelude in BWV 997 in the hallway outside Andrew Zohn's office, I missed a note. Just after I missed the note, Zohn walked around the corner and said "No thats supposed to be TI, you played RE, but its a B half diminished chord creating a ii V i into La. You just turned it into an iv V i progression by playing the wrong note"... come to think of it, maybe it was the other way around... I should know this by now!
- F. Robert Sharpe, One of Andrew Zohn's former students and now a professor himself, once told me that he would memorize the bass or other lines as if they where individual melodies and that helped him memorize since he had trouble singing and playing.
- G. I often learn a piece and its parts with a mandolin, banjo, piano, or bass. Playing lines from a piece I am preparing on another instrument keeps me from creating bad habits on the guitar, and it allows me to create more associations and develop phrasing ideas before touching the guitar. This process often leads to what I call putting the music on the guitar instead of putting the guitar on the music. When the music, the sounds, phrasing, physical actions, and note locations are already in your mind, playing comes more quickly and memorization tends to stick. Learning the passage physically and memorizing it on the

guitar comes quicker when I can do this. I also get an added benefit of learning banjo and mandolin.

- H. When Charlie Parker said “I can play as fast as I can think” I think he meant literally that his limit is how fast he can see it, think it, and hear it in his mind (I used to think this was some sort of jock statement).
- I. Bot Rene and my teacher in Minneapolis would commonly sing and play at the same time, with or without solfegg syllables.

V. Fingering Left and Right Hand.

- A. Do as much of these to sections without the guitar as possible, checking with the guitar only when necessary. As much as possible, always try to find fingerings that keep both hands in contact with the guitar as much as possible.
 - 1. Put in left hand (LH) fingerings (Numbers: 1, 2, 3, 4).
 - a) Put in as many fingerings as you need to have a clear picture of what is going on in the left hand or so that you will remember at a later time.
 - b) Consider how your fingering effect musical expression determined in section III and also the following factors:
 - (1) The connection and cohesion of a melodic or contrapuntal line.
 - (2) The connection between sub phrases or between phrases.
 - (3) Connecting two sub phrases or phrases.
 - (4) Note, a fingering can't just fit the measure in consideration, it must fit musically and physically with what came before and what comes after.
 - (5) The color and quality of tone (A on the B string sounds different from A on the E string, and open strings always stand out compared to fretted notes).
 - (6) Does the fingering make a melody or line sound connected or does the fingering interrupt the line?
 - c) Look for appropriate use of
 - (1) Barres: arched, hinge, partial, full, nested, un-nested.
 - (2) Location of shoulder (abduction, adduction, extension and flexion) and its movement of the hand perpendicularly in relation to the fretboard. Elbow flexion and extension and how it effects the vertical placement of the hand in relation to the fretboard. Both shoulder and elbow joints can be used to bring the fingers to the guitar, so that the act of pressing the fingers on the strings is not done only by the hand and forearm muscles.
 - (3) Intrapositional and Interpositional shifts: the motion of the shoulder (abduction adduction) and elbow joints and the position of the elbow effect the location of the fingers, especially 1 and 4 and their intra-positional placement on the neck.
 - (4) Make sure to minimize wrist deviation or flexion.
 - (5) Use forearm rotation (supination and pronation) to aid the movement of the fingers (supinate to aid 4, pronate to aid one). This motion aids in “pressure/release” exercises. It is very helpful when slurring (supinating for ascending slurs, pronating to relax from an ascending slur or to aid a descending slur).

- d) Look for comfort of execution and no excess tension. As Emilio Pujol put it in his method, “correctness is synonymous with ease.” I would define ease as neither overusing muscles nor of activating muscles that you do not need. A big part of the fingering process that is often overlooked is to not just think about where the notes are on the soundboard and what fingers should be assigned to them, but also how the wrist, forearm, upper arm, and shoulder should be used in place of or to aid the muscles of the hand forearm flexors and extensors of the fingers. Often using larger muscles to aid the hand reduces tension. Further explanation on this is beyond the scope of this document, but several methods present these issues very well: Ricardo Iznaolo Summa Kitaralogica, Aaron Shearer’s Learning the Classical Guitar, Abel Carlevaro’s guitar school, Fernando Sor’s Method.
 - e) Look for guide fingers (fingers that do not have to leave the the string as you shift positions) and anchor fingers (fingers that do not lift up when you are changing intra-positionally on the neck with the other fingers). Your goal is to have your hands in contact with the instrument as much as possible. These two concepts work in both the right hand left hand (p and a often function as anchors in the right hand).
 - f) Pay attention to finger 1 in scales, and all fingers in general. When ascending a single string chromatically finger one plays, then releases pressure but stays in contact with the string while finger two presses the string into the soundboard. The same happens from finger two to finger three and three to four. This is a big factor in scale speed. When descending, press down with finger three only at the moment when it is needed to play, and lift it off the string only when finger two needs to play. In other words, the fingers should be in contact with the string as much as possible, but not pressing the string into the fingerboard, thus expending unnecessary energy.
2. Put in Right Hand (RH) fingerings (letters: pimap).
- a) Pay attention to what type of anatomical position you are in and whether or not a finger needs to extend (for rest stroke) or flex (free stroke) to get to a string. Pay attention to use of rest and free stroke.
 - b) Look for opportunities to anchor any finger not being used to aid the actions of the others. p and a are most common, but all fingers including the pinky are often used. I once saw in a video Ana Vidovic planted i while plucking with p and m.
 - c) Focus on good string crossings.
 - d) Look for the most comfortable RH patterns utilizing all RH combinations to attain ease of playing (pi, pm, im, ai, ami, ima, iami). i and m will be used most frequently, as will pami and pmi for arpeggios.
 - e) Watch for strings that need to be muted, particularly in the bass with the thumb. The thumb can mute by placing it on a string that has been played or by using the radial and medial sides of the thumb on a string above the thumb (below in pitch).
 - f) Usually stick to RH patterns. if you are doing a run and start with mi, it is usually best to stay in that pattern unless a string crossing requires you to change it up.

- g) ami and ima are useful to get more out of the whole hand instead of overworking mi. ai is a good substitute for mi in some cases (Paco Pena uses ai sometimes).
 - h) Both Rene Izquierdo and Andrew Zohn told me that they try to use three strings in a row as much as possible. For example, in playing EDC, one may use open E, D on the third fret of the B string, and C on the fifth fret of the G string. This allows the RH to do arpeggio patterns, (regardless of whether or not the line is actually an arpeggio), which the RH finds very comfortable. Sor describes this as “Sometimes my left hand comes to the assistance of the right in descending groups of three notes, and I finger the three at once.”
3. As you become a better player, you will find yourself writing less in the score and doing less of this process consciously.
 4. Be sure to write in different LH and RH fingering combinations you come up with so that you don't have to remember all the different patterns you tried. If you come back later and need to change your fingering you will have these different fingerings to choose from and know which ones for sure did not work (this is a technique Rene taught me).
 5. Consider as many options as you can before deciding on something. When you think you have an idea, keep thinking. Remember, every notes fingering is effected by what comes before and after that moment. The goal is minimal use of the muscles to achieve maximum technical and musical goals.

A General Guidelines for Fingering:

For the Left Hand

- Pick a measure.
- Locate all the strings where the first note of the measure occurs.
- Once that first note is located, look at all the other notes in the measure and find their most immediate location, considering both open and fretted notes.
- Chose the string where that first note is that
 - Causes all the other notes to fall in one position
 - Or that causes the measure in question to fall as closely as possible to the form a CAGEDF chord shape.
 - OR a fingering that creates a 3 string arpeggio in the RH regardless of whether the notes being played are actually an arpeggio (an example is open high E string, D on the 3rd fret of the B string with finger 1, and C on the 5th fret of the G string using finger 3).
- Use open strings to give you time when you need to make position changes with the left hand or to avoid having to make position changes within a measure.
- Also consider tone quality: high B on the 7th fret of the E string sounds VERY different from the same note on the 12th fret of the B string.
- Choose the fingering that creates the phrasing and expression you want while allowing all the techniques you need to execute (slurs, barre, etc.) in the most efficient way possible.

For the Right Hand

-consider p, i, mac as three separate units. Avoid flexing any finger in unit mac while other fingers in unit mac extend (so don't pluck/flex with m while extending a or c, instead, alternate between i and m).

-Rely heavily on i and m alternations and ami for scales and avoid alternating a and m as much as possible.

-P usually takes the bass, although alternations between p and i for scales often help keep the hand from shifting

-Think of p as managing the bass strings and i matched to the G string, m matched to the B string, and a matched to the E string. Try to keep your right hand in this region and avoid shifting the whole hand as much as possible (don't however be dogmatic with this rule! If a scale or chord shape forces you to move the whole hand towards the bass strings, do it). This position can also be shifted so that i is matched to the D string, m to the G string, and a to the B string.

VI. Visualization of Physical Motions.

A. No tempo visualization

1. Try singing at pitch with your eyes closed the bass or the melodie(s).
2. Try saying the notes of each voice (bass, tenor, alto, soprano) in time.
3. Visualize the LH motions and fingers playing the piece.
 - a) Sing each line and say the LH numbers as you do this (1, 2, 3, 4).
4. Add the RH to your visualization.
 - a) Visualize just RH
 - b) Sing the line saying RH letters (pimac)
 - c) Visualize both LH and RH singing/saying RH or LH letters

B. Do Steps in Letter A with a metronome.

C. Remember, saying the fixed do syllables, LH finger numbers, and RH finger letters makes sure that you are actually critically thinking as you visualize. Something about actually saying the syllables and letters out loud as you visualize makes it stick better.

D. Learning all the melodic lines, bass, or chord progressions of the piece on another instrument like piano, bass, banjo, ukulele will all help you internalize the music if singing is difficult (this is a great solution for 20th century music which is often harder to sing).

E. Try playing the lines individually using the fingering that you will use when you put it all together.

F. YOU WILL ONLY BE ABLE TO PLAY A PASSAGE AS FAST AND AS ACCURATELY AS YOU CAN SEE THE MOTIONS IN YOUR LH AND RH AND BODY IN YOUR MIND, HEAR IT IN YOUR INTERNAL EAR, AND SEE THE SCORE IN YOUR MIND WITH YOUR EYES CLOSED OR LOOKING AT THE INSTRUMENT. DON'T STOP UNTIL YOU CAN "PLAY" THE WHOLE PASSAGE AT A SLOW TEMPO IN YOUR MIND.

VII. Physical Practice: How to work up to actually playing. Go through each large section of the piece.

- A. Play the piece with no tempo about 3-5 times, watching left hand and right hand and Focusing on:
1. Economy of motion.
 2. Controlling all the fingers.
 3. Play arpeggio patterns as though they were chords.
 4. Awareness and control of finger joints, knuckle joint, hand muscles, wrist joint and its flexion, extension, and deviation, forearm location, elbow flexion and extension, forearm supination or pronation, upper arm location (flexion, extension, adduction, abduction), shoulder, and how these limbs all effect the position of the fingers (as explained in section V).
 5. Relaxation of hands, arms, shoulders, back, and core with the goal of eliminating excess tension (meaning not causing muscle fatigue by overusing muscles or engaging muscles that are not necessary). Many performers on different instruments sway back and forth. This keeps the body relaxed by shifting the weight of the body around, as apposed to tiring out muscles trying to stay in one spot (isometric tension).
 6. As Pepe Romero says in a YouTube video of a lesson with a student, speed comes from relaxation. You will only be able to play as fast as you can relax. As important as the flexion of the fingers and using forearm muscles is, the relaxation to an inflexed neutral state (where the fingers fall at rest) after plucking is more important. Relaxation often facilitates or creates preparation. It also prevents muscle fatigue (tension). Every action in the arm has a range of motion (flexion and extension), and they also have a middle area where the muscles controlling those motions are neither flexing nor extending (where the arm would fall if you just sat in a chair and let it fall to its side or placed in in your lap). Muscles flex, pulling tendons, which attach the muscle to bones, which causes the bones to move (flexing the forearm flexors pulls tendons that bring the fingers into the palm, for example). When you finish a motion, it is important to return to relaxed or neutral (no muscle flexion). Again, see methods by Iznaola, Shearer, Carlevaro, and Sor.
 7. Tension can be static, in which a muscle is holding something in place (isometric motion), or a result of excess motion (isotonic motion). Holding the pinky out is an example of isometric muscle tension. To large a plucking motion is an example of isotonic tension.
 8. Accuracy.
 9. Not letting fingers in either hand do motions you don't want or that will impede your playing at performance tempo.
 10. Not lifting a finger off the string or fretboard that does not need to be lifted.
 11. Not letting the fingers hold a note for longer than you want, thus slowing them down from getting to their next destination.
 12. Not having awkward string crossing in the RH

13. After executing one motion, you must mentally and then physically prepare for the next motion. Always think ahead, like sight reading.
 14. Make sure you are aware of and executing all the musical and technical aspects discovered in section III and IV.
- B. Slow Practice: Play 5 times with both hands at 16th note = 30-60 per minute (speed depends teaching your muscles to flex and relax, which is first learned VERY slowly). This allows you to:
1. Put the music into time and forces you to think in time while going slow enough that you have more than enough time to think about ALL the VERY COMPLEX things you are putting together from part A.
 2. It also allows you to stay relaxed without tension or to eliminate tension if you notice it.
 3. As you practice in time, always be thinking ahead about the next motion, using your eyes not to respond to what you are playing but to see where your hands need to go next and direct your hands and body. This is a technique described by Pepe Romero and is the beginning of the memorization process.
 4. Remember to include all your interpretative musical elements from section III.
 5. Sing/say your fixed DO for all melodic and bass parts, then say LH numbers and then the RH letters as you practice.

Lukasz Kuropaczewski

I get asked a lot how I practice. Here it is. Finale from Jose Sonata. Right hand preparation. Thumb and a finger attached to strings to make the whole hand stable. Every movement always prepared. I always use metronome and do every bar five times. Sixteen note 80. Same with left hand (next video). It is weekend, so happy practicing everyone!:-))) He uses MIP, never A, and he relaxes like pepe remero says, although the M finger tends to relax when I does
<https://www.facebook.com/lukasz.kuropaczewski/videos/10153374013597226/>

- C. Play at 30-80% tempo putting everything together.
1. If there are any consistent mistakes after playing at this tempo 3 times, isolate these mistakes mentally or in writing on the score with a bracket.
 2. Watch your left arm and hand and then your right arm and hand and try to identify what is causing the mistake. It could be a left hand fingering issue like not using a guide or anchor finger, or a poor right hand finger combination, or an improper angle of the LH elbow, or perhaps you still can't sing or visualize the passage, or your phrasing is unclear, or you are playing the wrong rhythm. There are a lot of problems each requiring their own solution and they can't all be listed here.
 3. Go back to section IV and work through the fingering process again to see if an alternate fingering in the LH or RH may solve your problem. Do these things until you have eliminated the mistake. Reconsider every aspect of the mistake with the goal of achieving the larger musical goals of the phrase.

4. After finding a solution, repeat that problem spot at 16th note = 30-80 until you have internalized the solution.
5. Once that mistake(s) has been fixed, try doing more slow practice of the whole passage with the correction incorporated, then try playing at the 30-80% tempo.
6. Do this process until the passage is clean and musical.

“The top performers utilized a variety of error correction methods, such as playing with one hand alone, or playing just part of the excerpt, but there was one strategy that seemed to be the most impactful.

After making a mistake, the top performers would play the passage again, but slow down or hesitate – without stopping – right before the place where they made a mistake the previous time.

This seemed to allow them to play the challenging section more accurately, and presumably coordinate the correct motor movements at a tempo they could handle, rather than continuing to make mistakes and failing to identify the precise nature of the mistake, the underlying technical problem, and what they ought to do differently in the next trial.”

http://www.creativitypost.com/psychology/8_things_top_practicers_do_differently

VIII. Don't over practice

1. **IMPORTANT:** Over practicing can lead to injuries or a loss of focus.
2. Take five or ten minutes breaks every hour to let your body and mind rest. Many musicians I have talked to say that often solutions or internalization happens during their breaks. Somewhere I read a quote by a great pianist who said he always finds technical solutions away from the instrument (illustrating the importance of visualization).
3. Use the visualization time as time to relax from playing. This helps avoid overworking the body. You can also use your physical rest time to visualize.
4. **IMPORTANT:** If you are repeating a passage and not improving and/or you are losing focus, move on to another passage. Come back to that passage the later or on another day when you can be focused.
5. Practicing with mistakes will lead to mistakes in your playing.
6. Learn to distinguish between mistakes in performance that are because you are human versus mistakes because of a problem that has not been solved. Rene Izquierdo told me that if you make the same mistake once you are human, 2-3 times usually means that something needs to be fixed.
7. Stanley Yates once told me after my audition for his master in guitar performance program that when you are done practicing a passage, you should be able to play it at a modest performance tempo, and that this should usually happen after the first practice session. I agree with him.

IX. Memorization.

A. How to schedule in memorizing.

1. Really important: many studies from the science of teaching and learning field (SOTL) suggest two strategies that are really important.
2. The first strategy is practicing things in different ways (hence all the different ways of practicing in this method). This seems to aid your brain by giving it more ways to remember something.
3. The second is active recall is stronger than repetition. You are better off spending 30% of your time repeating something to learn it and then the other 70% trying to recall it, correcting yourself only when you absolutely can't remember, than you are constantly repeating. This means if you practice something 15 times, 5 should be looking at the score, 10 should be trying to remember it without the score. Same goes for time (60 minutes practicing a section, 20 minutes trying to memorize it, 40 minutes trying to recall it).
4. You are better off doing smaller chunks multiple days in a row than giving it too much space or spending a lot of time on one thing. In other words, pick three pieces, and practice for a total of 1 and 1/2 hour. Each piece is practiced for a half hour. Stop on each piece after a half hour. Return and cover the same material for the same amount of time every day until you have that material memorized. This is a more effective learning strategy than repeating a section or piece until you can play it (like spending 5 hours on one piece).
5. Also, if you are going to do two pieces, each 1/2 hour, in addition to following the 30/70 schedule mentioned in the memorization, make sure some of the 70% time is spent after some time has passed. So let's say you practice three pieces, each for 1/2 hour. 10 minutes goes to memorizing, 20 goes to recall for each piece. Of the recall time (70%), spend 5 of it at the end of the next piece's session. So, for piece one, memorize 10 minutes, recall for 15, do the other 5 minutes of recall at the end of piece 2's half hour. SOTL studies suggest that failed recall attempts are a much better learning strategy than repetition. The increase in efficiency is significant in other subjects and is likely very applicable to music.

B. Memorization techniques

1. Work from the end of the section, 1 phrase at a time, starting at the end of each phrase. This is David's Russell's method of memorization that he describes in a guitar talk with Benjamin Verdery. He believes starting from the end insures that every time you add something you are always heading towards material you already know, versus starting from the beginning where you are venturing off into no mans land. Angelo Favis works from the end as well, because he believes we often lose focus towards the end because we want to be done.
2. Only memorize 1-2 bars at a time. You may need to even memorize a half bar at a time.
3. Add the new bar to previously memorized ones.
4. Say/sing/visualize The chromatic fixed do sofegge notes.

5. Say/sing/visuals The LH numbers
6. Say/sing/Visualize RH letters.
7. Imagine it all together, singing and saying the main melody.
8. Do exercises 2-5 with your eyes closed 3 times each. Do no tempo, just focused on saying/visualizing everything in the correct order.
9. You can also do air guitar visualization (literally do all this on air guitar).
10. Try playing one line with RH, all lines with left hand.
11. Play one line and sing the other.
12. Play just RH or just LH
13. Play the left hand lines individually but using the fingering you will actually use when it is all together.
14. Transposing everything with a capo as high as you practically can is also a great way to internalize the music as it forces you to think critically about the notes in the original key as you are transposing.
15. Practice visualizing all the motions and sounds in your mind, starting with a sub phrase, then a phrase, then multiple phrases and a section, then whole pieces, etc.
16. Now do any of these exercises but this time playing on the instrument. Start no tempo, then 16th note = 30-60, then gradual tempo increase.
17. A passage is not complete until you can play it cleanly and musically from memory and until you can see and hear everything in your mind. Don't move on from a section or passage until this is done.
18. It is important to be as meticulous with the memorization process as you were in section VII.

- C. Gradual Tempo Increase. It is prudent to memorize at a slower tempo and then work up speed. Speed comes from memorization and from just living with the piece for a bit. The tempo you memorize should be at no more than what I call "church tempo." Church tempo is the minimum speed you could play a piece and still get paid for a church gig.
1. If at this point you can't play a phrase at tempo but you can play it cleanly at slower tempos, set your metronome to 20-50% of the final performance tempo depending on difficulty.
 2. Play each phrase that needs to be speeded up with a metronome, even sub phrases or measures, and each time increase the tempo by 2-5 clicks.
 3. Connect phrases or sub phrases together before increasing the tempo.
 4. Keep increasing your tempo on the metronome until you find a tempo in which you have excess tension or can't play accurately.
 5. Return to a tempo that you can both play accurately and have no excess tension. Stay at this tempo for a bit and focus on staying relaxed and then increase by a small amount until you are comfortable at higher tempos (no excess tension and consistent accuracy). Rene Izquierdo told me that gradual tempo increase should be thought of as learning to stay relaxed at every increase in tempo.
 6. Take 10 second brakes so you don't over work yourself.

7. Continue like this until you can play the whole measure, then sub phrase, then phrase at tempo. Then connect phrases in this manner.
8. This process make take multiple days or weeks to reach a performance tempo depending on the level of difficulty.
9. Don't rush the process.
10. Remember, its about getting relaxed and accurate with no excess tension at each tempo level before increasing to a faster speed.

X. ENJOY HOW FAR YOU HAVE COME WHEN YOU CAN NAIL THE PASSAGE 3 TIMES IN A ROW. Play the passage again and enjoy again because this is why we practice. Remember, the end goal of this is fun. This process is about getting to fun as fast as possible. It is ultimately an act of laziness. Music was originally a craft or trade before the romantic era. I think we would do well to go back to that mentality and think of ourselves not as artists but as happiness craftsmen, engaged in the trade of using organized sound to effect or empathize with people's emotions an experiences. This may take some of the mystery out of the learning and education process and allow us to teach in a more organized and effective way.

- XI. Shifting material to the "completed...ish" section of your practicing (nothing is ever really "complete").
- A. In his method book Christopher Parkening recommends that at some point you take your polished pieces and put them in your schedule as something you don't practice regularly but review regularly, perhaps touching up spots occasionally.
 - B. Rene Izquerdo told me that you should find a comfortable tempo somewhere underneath (60-90%) the final goal tempo. You need a performance tempo that you can sit at and play comfortably and then gradually grow into the final faster tempo (like the "church tempo").
 - C. Many top level performers set up a recording date at the end of tours. The material they record is the material they played on the tour. They thus use the tour as a means of building up the material for the recording date. By the time the tour is over they have practiced the pieces a lot and performed them frequently and have thus grown into faster tempos with increased internalization and multiple angles of interpretation.
 - D. Know when its time to let a piece go. Mistakes can usually be fixed but sometimes its best to take a piece out of your repertoire if there are too many issues. Its easier to fix bad habits by starting fresh sometimes. Many players I have talked to say that they still can't play passages in pieces from their early studies despite having improved their technique and played more challenging passages afterwards. Sometimes bad habits just stick. Often you will find that the next piece is easier because you have learned from the last piece.

Have Fun

Suggested Routines:

Do as many phrases of a piece as possible going through every section of this method. Stop when 1/2 hour is up and continuing where you left off in the method (unless you finish).

Pick multiple pieces (lets say five), and do the same section of this method (like the analysis section) for each piece or for sections of this piece, moving on to the next section of the method for each piece when you have completed the previous section. Make sure you pick as many pieces as you have time for. If you have three hours to practice and five pieces takes four hours, scale it down to three pieces. So it may take you three days to do the analysis section for all three-five pieces. Then do the fingering section for the three-five pieces, then the visualization section, etc.

Do the same method as the previous one, but do a different exercise from each section each day. So you have five pieces, you hit every section, but you only do one or two practicing techniques from each section.

Try throughout to locate trouble spots or more difficult areas and focus on them first. The sooner you can find the areas that will need more time and stop practicing parts that come more easily or that you have already mastered, the faster you will be overall.

Also, if you are going to do two pieces, each 1/2 hour, in addition to following the 30/70 schedule mentioned in the memorization, make sure some of the 70% time is spent after some time has passed. So lets say you practice three pieces, each for 1/2 hour. 10 minutes goes to memorizing, 20 goes to recall for each piece. Of the recall time, spend 5 of it at the end of the next piece's session. So, for piece one, memorize 10 minutes, recall for 15, do the other 5 minutes of recall at the end of piece 2s half hour. SOTL studies suggest that failed recall attempts are a much better learning strategy than repetition as it forces your mind to practice recalling information. The increase in efficiency is significant in other subjects and is likely very applicable to music.

Some general principals about learning:

- 1) Each recollection of a memory adds a new layer of memory to what is being recalled.
- 2) Forgetting helps you learn by showing you what has not been internalized. When something is recalled or revisited that has been forgotten, it sticks better. Active recall is more valuable than repetition.
- 3) Change where you learn something or how you learn it (don't just repeat, learn to sing it). Link as many of your senses to what you are learning as possible
- 4) At first you should repeat frequently, as time passes, less frequency is required for retention
- 5) Testing yourself is a form of learning. Don't just recite or review material, try to recall from memory or create some kind of test.
- 6) When you get stuck, take a brake

- 7) It is better to do short sessions every day on a particular skill or passage than one or a couple large ones.