

The Bass as an Improvisational Instrument

by G. Radai (7/7/04)

I. ON IMPROVISATION IN GENERAL

If improvisation is meant to be a more-or-less spontaneous generation of music, or at least “musical sound” (See the article on Levels of Improvisation referenced at the end of this document) then considering the wide-open-ness of that definition, one would think the sky is the limit, anything goes, complete freedom is not only necessary but that the exercising of such freedom is required, mandated, even expected.

I submit that there is, however, a wiser position that is informed by an opinion I hold regarding the innate “flavor” or abilities of your chosen instrument, and that the character of your instrument represents a filter, a further requirement (non-mandatory, however important) and also a potential roadmap for successful expression within an improvisational context.

(A lot of improvising musicians skirt the topic of “successful vs unsuccessful” in their expository writing about the genre of improvised music. Of course, “success” has many and broad and often quite subjective definitions. For the purposes of this essay, I will give you my personal definition, which may or may not meet with yours.)

Successful improvisations are, in the minimum, satisfactory to the musician that is improvising. There is a feeling that valid and expressive musical statements are being made, and that the generated material is unique. Of course, in this definition, the entire sense of satisfaction derived from the act of the improvisation is a completely subjective one, and not bounded by any other concerns whatsoever. At this point, whether there are other listeners who enjoy what is improvised is completely moot. The *improviser* is having a good time!

Perhaps this is obvious, but subjective criteria are STILL valid criteria to the person setting the criteria, and therefore if you place further pre-requisites on your improvisations such as “the other musicians must ‘get it’” or “the audience should smile and applaud and gaze adoringly at my musical prowess and my sublime and passionate sensitivity as an artist” or “at least no one is throwing things at me”, then you will not judge your own improvisations as successful unless these subjective criteria are met. It’s not my intention to argue the sense of this or not, it’s just a fact. You have to have things your way to be happy, right? It should be stated for the record that your own sense of success often may have ABSOLUTELY no bearing on whether others will love or hate your improvisations.

One thing can be said for certain: music is a form of non-verbal communication that is often subliminal in nature, due to its abstract non-verbal idiom. It is interesting to note that listeners will often profess liking a piece of music by saying it “spoke” to them, which I take to mean that some sort of abstract expression from the musician took on a more cohesive and concrete interpretation in the listener who provided their own personal contextual foundation upon which the improvisation could take hold, flourish, and develop meaning.

Now that those ideas are established, let’s focus on the idea that each instrument has its own character, and that this implies several consequences for the improviser which they ignore at their own peril.

Any instrument throughout the ages of man has been used both in solo and ensemble contexts. Whether an instrument capable of only one note or sound or an instrument of polyphonic multi-timbral complexity is chosen, the manner in which one will improvise with that instrument can change, depending on that instrument’s internal characteristics, and whether it is to be used in a solo or ensemble context. Some of this contextual change may be purely societal or musical convention—that is to say, the “accepted” manner in which such an instrument has traditionally been used. Some of this thinking may actually have its genesis in the physiological/biological function and ability range of our human limits. Although frequencies of vibrations in air extend theoretically from the single longest wavelength that our atmospheric density can support all the way “up” to the shortest, quickest wavelengths that are likewise supported by our particular atmospheric mixture of

gases, we humans haven't made a lot of instruments that play in these extremes of harmonic registers because of the limitations of our own hearing. Nobody is writing western ballads for the bat or the dolphin or the elephant—all animals with hearing ranges that surpass our own.

Some anthropologists argue that humans evolved to hear the things they do because their survival depended on it, and most of the things that caused our untimely demises tended to make noises in those particular frequency ranges. Consequently, we can hear the high-pitched sussuration of the savannah grasses being parted by the leopard that stalks us, but we can't hear the ultrasonic noises made by bats and insects we don't need to fear as much...or so goes the theory. The human audible hearing range is stated in the table as 64Hz to 23,000Hz, but most audio engineers agree that 20Hz to 20,000Hz is more the normal range.

Here's a chart of relative hearing responses of different animals, illustrating the striking differences!

Species	Approximate Range (Hz)	Species	Approximate Range (Hz)
human	64-23,000	bat	2,000-110,000
dog	67-45,000	beluga whale	1,000-123,000
cat	45-64,000	elephant	16-12,000
cow	23-35,000	porpoise	75-150,000
horse	55-33,500	goldfish	20-3,000
sheep	100-30,000	catfish	50-4,000
rabbit	360-42,000	tuna	50-1,100
rat	200-76,000	bullfrog	100-3,000
mouse	1,000-91,000	tree frog	50-4,000
gerbil	100-60,000	canary	250-8,000
guinea pig	54-50,000	parakeet	200-8,500
hedgehog	250-45,000	cockatiel	250-8,000
raccoon	100-40,000	owl	200-12,000
ferret	16-44,000	chicken	125-2,000
opossum	500-64,000	chinchilla	90-22,800

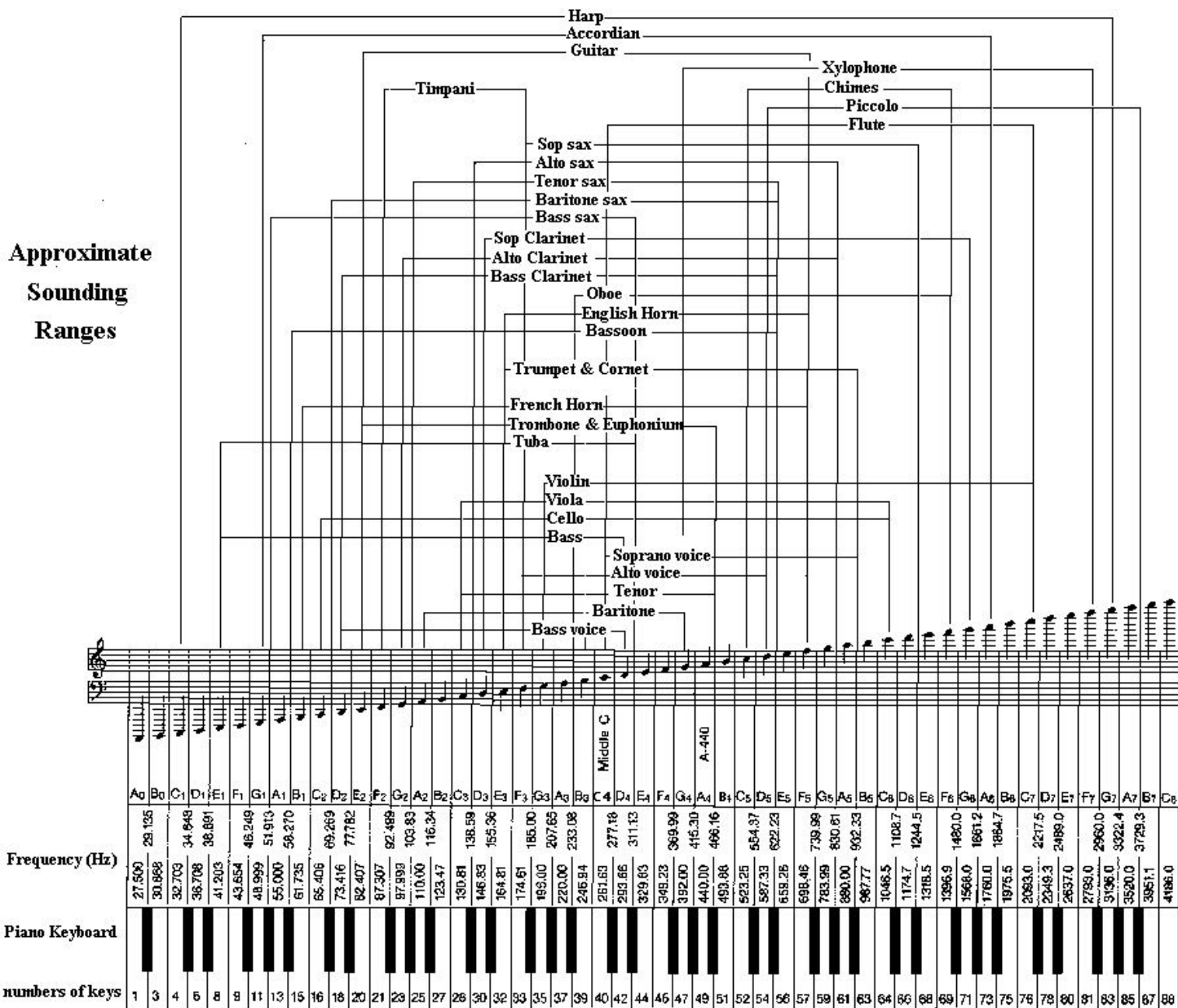
(This chart was found at <http://www.lsu.edu/deafness/HearingRange.html>)

That said, we've come as a culture to accept that instruments whose harmonic ranges lie more or less in the middle of what we can audibly apprehend are "the lead" instruments, preferred for melodizing and soloing, while the instruments that play at the further extremes are relegated to support roles and "icing". This is also our tendency regarding monophonic versus polyphonic instruments, although perhaps less so, since many homophones are used as solo instruments specifically, and even polyphonic instruments tend to play monophonically when soloing. These are simply generalities based on observation: there are a lot more concertos for violins and pianos than there are for double-bass or triangle. Maybe that's a good thing in the case of triangle, but in many instances it seems to be simply an historical bias, or just maybe it's the fact that the range of expressive ability one instrument has over another holds more appeal and utility for most composers. Although it WOULD reflect a certain perhaps unfair bias to assert that no one could write the definitive rockin' and musically meaningful triangle concerto—maybe it's just that no one has bothered to, yet.

I'd like to focus on the Bass here. Traditionally, the lower frequencies have been always treated as *foundational*, and bass was almost always used in the context of being a supportive voice for the higher-frequency instrument voices. This was accepted in Bach's time and since because of the refinement and development of four-part harmony. Chord structures have traditionally been built from the bottom frequencies upward, with

chordal movement and tonal centers described by the movement of the bass or baritone voices. There was a prevailing attitude that the higher notes were “sweeter” and “purer”, while the lower notes were where impressions of force, power and sense of size and motion were derived from. This is borne out in physics plainly enough: lower tones actually do require more energy to be produced, as well as more energy to make them audible to the ear which is less sensitive to lows than to highs, and when they are effectively produced lows tend to travel farther in air, and move larger volumes of air, creating more of an impression of sound force on the listener than high frequencies. Lows also sound denser, which is a function of the fact that since their harmonic fundamental is at the lower end of our hearing we can hear more of a lower tones’ higher-order harmonic series in the remainder of our hearing range. This is what makes bass tones more sonorous, dense, and “weighty” to the listener. The relatively high notes of a violin sound purer to the ear because much of the higher-order harmonics of that instrument actually extend beyond our ability to hear them well! So the part of the violin notes’ harmonic spectrum we are most aware of is its fundamental or lowest tone, which, without hearing the remaining upper harmonic content it possesses, seems purer and less dense than the rich and deep bass sonorities comprised of the bass fundamental and its own extensive harmonic series. There is, of course, much harmonic overlap in all instruments, even if they are very different in timbre and character. For instance, the Oboe and the Cello share much the same frequency ranges, but the Oboe is generally regarded as a nasal-sounding wind instrument, while the Cello is regarded as a more pleasing string sound, no offense intended to the Oboe players out there!

Here’s a chart showing the relative frequency ranges of various instruments, and their zones of overlap!



Aside from a very few historically significant virtuosi of the lower frequency instruments in the classical music period, there really was no acceptance of these instruments in the soloists realm. There were real physical handicaps to this as well. In order to produce enough energy to be heard as loudly as the higher tonality instruments, a bass had to be BIG! An acoustic bass had to have a big body with a large resonant cavity in order to excite enough air mass to be heard at the same relative volume level as the higher frequency instruments. Since the bass wavelengths are also longer than highs, the instruments had to have long necks, and big fat heavy strings that had to be plucked or bowed with a great deal of strength in order to sound loudly, and that often required vigorous exertion in order to play it halfway nimbly. By comparison, it is much easier to play fast parts on a violin, where the notes are really close together, than on a bass. Where note durations of 16ths, 32nds and 64ths were common for violin, bass notes were often whole notes, half-notes, quarter notes and at their quickest, the occasional 8th note passage, and this was usually the composer's concession to the fact of bass player's frequent arm cramps!

Some time later, Jazz music gained popularity, where the bass as a solo instrument began to be featured occasionally. In jazz forms, often each member of an ensemble got to solo in succession on the theme of the piece, and this extended to the instruments of the traditional jazz "rhythm section", at the time understood to

comprise guitar, piano, drums and bass. In traditional jazz, brass and reed instruments were the lead soloing instruments. As jazz evolved from big band to be-bop, the ensembles got smaller, the multiple horns and reeds often went away, and the smaller, more free-form ensembles began to make important strides in musical development. At this point some of the first bass virtuosos began to gain popularity. But the instrument itself was still physically difficult to play, and difficult to record, and often the hardest instrument to hear in the ensemble: everybody else in the jazz band had to totally quiet down or stop playing entirely when the acoustic bass took a solo, or nobody would hear it! Thankfully, the electric bass guitar was invented, removing some of the physical limitations for the players of bass frequencies, and enabling a greater access to soloing possibilities.

Improvising a solo in the jazz context was often a matter of extrapolating short melodic and rhythmic ideas based on the framework of the chordal structure and melody of the tune, which were well and pre-established. In other words, since the bass solo section was a place in the song where the rhythmic propulsive drive and lowest-voice-of-the-chord's motion was not required (or taken over by another instrument assuming the rhythmic foundational role) the bass could do the same kinds of things the other instruments did when soloing, according to the ability of the bass player.

I want to make an important distinction between bass improvisation within the context of a solo section, and improvising on the bass WHILE the rest of the band is still playing. Typically, ensembles have allowed the former and *seriously frowned on the latter!* This was an offense that would usually get a bassist FIRED!

And here's the crux of the biscuit: convention has sequestered the bass into a support role so completely, and the remaining instruments of an ensemble depend upon the bass for propulsive drive and chordal definition so much, that if the bass leaves these focal duties unattended, the entire ensemble can crash and burn and train-wreck immediately! This is why musicians often refer to the bass as "the foundation", but they usually mean it as "THE FOUNDATION!!!" to give you some idea of the instrument's importance in an ensemble context. Indeed there are still musicians that believe the high notes of a bass are largely useless, irrelevant territory at best, and the death of a band's driving power at the worst!

In my own view, the bass is the part that unifies the rhythm parts and the melody parts, into a cohesive whole. As such, its importance cannot be overstressed. Without a good (that is to say, *effective*) bass part, most music never coheres into anything interesting. I feel the bass function is not so much foundational as *interstitial*, existing between the foundation and the melody as part of both. I think it's the "glue" of the band. More on this later, but for now, consider that if an ensemble were a ship, then the bass is always the keel.

But we were speaking of the improvisational context, which is supposed to be free of these sorts of strictures.

Therein lays the challenge, a supreme challenge for every bassist that wants to be an improvising musician beyond merely the obligatory 4-bar solo. The improvising bassist MUST still find a way to merge the traditional support role of the bass as an ensemble's primary foundational element with the ability to be spontaneous and creative and sensitively reactive in an improvisational context. At first, these two elements SEEM to be at odds with each other. How can one be supportive and foundational and at the same time be totally free to express oneself for the sake of exploring their unbounded, unrestricted improvisational realms?

By the way, before moving on the expound on this, I do have a firm belief that each and every instrument has a certain innate character, and this opinion is shared by trained orchestrators and arrangers, as well as knowledgeable music producers and composers. While any instrument can play any given part, the individual timbre of certain instruments lend their selves readily to certain emotional colorations. For instance, it is fairly well accepted that certain instruments produce a "lonely" or "sad" sound, while others produce a different coloration entirely, based on the not-entirely subjective content of their particular set of harmonic characteristics resulting in their specific timbre. There is a reason that certain parts are assigned to certain instruments in an orchestra or ensemble (not to say that skilled players cannot transcend or extend their chosen instrument's emotional range somewhat) and this is easily illustrated. Imagine a melody you are familiar with, and then imagine this melody played by a flute, then a French horn, then a harmonica, and then a kazoo, and you will easily see that your melody "fits" better with one or more of these instruments, but might sound ridiculous with

one or more of them too! This sense of “fit” is what I am talking about regarding the emotional content of the music being supported by the innate emotional and tonal range and characteristics of a given instrument. While a bass COULD play the transposed notes of a flute part, it might not sound “right”. It is also a challenge to improvising musicians to practice trying to interpret the “feel” of a different instrument and its playing style upon their own instrument of choice, and in fact this is often done in certain improvisational contexts and not just as intellectual exercise. As an experiment, try to play your bass like a flute, or like a sitar, or like a banjo, and see what kind of interesting possibilities for expression this brings forth.

In order to be able to freely improvise without context or restraint, you merely have to play from the inspirations of your moment. To try to freely improvise *while* maintaining the singular constraint of acknowledging your particular instrument’s innate character and strengths is not necessarily a philosophical contradiction to the idea of freedom—something of an analogous idea could be the concept of specificity or speciation. If I *am* a duck, that means **I’M A DUCK**, so does it even make sense to say my duck-self is not free because I cannot also be a moose?

Note that the argument, framed in terms of what a thing IS, and not in terms of what it can DO, is what is in debate here. You may feel that your duck-self does a pretty damn convincing moose imitation, so good that even other moose are duped, but it doesn’t stop you from being a duck, and not really a moose.

Maybe that sounds inane, but just as specific hand tools are meant for specific jobs, so is an instrument a tool of sorts, a tool of musical expression in this case. You indeed can use a screwdriver as a can opener, and this is intellectually analogous the same way I might use a guitar to play a violin part. In the same way that I probably might get a slightly better or more convenient result actually using a can opener to open the can, I will probably get more “violin-ness” out of an actual violin than a guitar.

I submit that a deep cognizance of the innate character of your chosen instrument is **ESSENTIAL** to being able to improvise freely upon that instrument, and that this is in some fundamental way a core path to successful improvisations. This is only my opinion—I *think I make a better duck if I’m ok with being a duck, and I don’t try to be a moose*. However, in a “directed” or “conducted” improvisation, you may just as easily be called upon to moo as to quack. Luckily, most musical instruments have broad emotional voices, and can speak a pidgin version of other species of musical instrument, if the player is skilled enough to do so.

Since the advent of electrical musical instruments, the world has certainly become less bounded by the strictures of any instrument’s physical properties. In the bass world, you can now get so loud with amplifiers that you needn’t have to turn the other players down in order for your own parts to be heard. Effects can introduce many more subtleties to your instrument’s tonal range and harmonic content, and therefore extend the available emotional vocabulary range of your instrument. But it is important, I think, to never forget that a bass-range instrument has certain roles, responsibilities, and relative strengths and weaknesses due to its innate character.

To get even more detailed and specific, the physical reality of the tonal range of the standard electric bass guitar actually allows a definite strata of coloration that is more or less dependent on WHERE upon the neck a note is played. Assuming the bass is a 5-or-6 string instrument, the range can be from 31.5Hz (the low B string played open) to the highest harmonics of the upper fret notes up to ~10kHz. Comparatively, this describes **OVER** a 5-octave range on the piano, which is very wide. Indeed, because of the range of notes that a bass guitar can produce, there are some insights one can glean from looking at the following “equalization” range descriptions.

Common Frequencies For Equalization

Instrument	Cutting	Boosting	Comments
<i>Human voice</i>	Scratchy at 2 KHz. Nasal at 1 KHz. Popping Ps below 80 Hz.	Hot at 8 KHz. Clarity above 3 KHz. Body at 200-400 Hz.	Aim for a thinner sound when blending many voices, especially if the backing track is full.
<i>Piano</i>	Timmy at 1-2 KHz. Boomy at 300 Hz.	Presence at 5 KHz. Bottom at 100 Hz.	Don't add too much bottom when mixing with a full rhythm section.
<i>Electric Guitar</i>	Muddy below 80 Hz.	Clarity at 3 KHz. Bottom at 125 Hz.	
<i>Acoustic Guitar</i>	Timmy at 2-3 KHz. Boomy at 200 Hz.	Sparkle above 5 KHz. Full at 125 Hz.	
<i>Electric Bass</i>	Thin at 1 KHz. Boomy at 125 Hz.	Growl at 600 Hz. Bottom below 80 Hz.	Sound varies greatly depending on the type of bass and brand of strings used.
<i>String Bass</i>	Hollow at 600 Hz. Boomy at 200 Hz.	Slap at 2-5 KHz. Bottom below 125 Hz.	
<i>Snare Drum</i>	Arnoying at 1 KHz.	Crisp above 2 KHz. Full at 150-200 Hz. Deep at 80 Hz.	Also try adjusting the tightness of the snare wires.
<i>Kick Drum</i>	Floppy at 600 Hz. Boomy below 80 Hz.	Slap at 2-5 KHz. Bottom at 60-125 Hz.	For most pop music, remove the front head, then put a heavy blanket inside resting against the front head.
<i>Toms</i>	Boomy at 300 Hz.	Slap at 2-5 KHz. Bottom at 80-200 Hz.	Tuning and adjusting the head tension makes a huge difference too!
<i>Cymbals, bells, tambourines, etc.</i>	Arnoying at 1 KHz.	Sparkle above 5 KHz.	[Analog only:] Record these instruments at conservative levels, especially at slower tape speeds.
<i>Horns and Strings</i>	Scratchy at 3 KHz. Honky at 1 KHz. Muddy below 120 Hz.	Hot at 8-12 KHz. Clarity above 2 KHz. Strings are lush at 400-600 Hz.	

Note that even though the chart above describes a variety of different instruments and their consequent tonal characteristics when certain of their frequency rangers are boosted or cut by equalization, the range of the electric bass guitar falls into most of these tonal realms as well. Similarly, depending on the specific tone settings of the electronics of the instrument, and it's construction, and the manner of it's playing, a bass guitar can have "boomy", "honky", "brassy", "glassy", "smooth", "mellow", etc. kind of tone, and these subjective tonal descriptors may or may not be stronger or weaker in certain areas of the bass neck. For instance, a B note played on the B string's 24th fret is supposed to be the exact same frequency of note as the B played on the 19th fret of the E string, and is also the same as the B played on the 14th fret of the A string, and the same as the B played on the 9th fret of the D string, and the same as the B played on the 4th fret of the G string, but all five of these notes that are supposed to be the exact same, and in fact are notated in sheet music the exact same way sound much different, due to their placement on the neck, and due to the relative thicknesses of each string's metal diameter, and due to the overall vibrational length of the string that is playing the note. This is why note choice, *where* you would play a given note on the neck, also can have the ability to further refine emotional expression. For instance, the B that I'd play on the thickest string furthest up the neck has quite a different "gravity" and "resonance" and "density" than one further down, which has a little more of the same than the one further down the neck than that, etc.

Since it is not my intent to belabor a list of potential "tools" and utilities that the improvising bassist can use (it would be long indeed, and would apply generally to any instrument choice) but rather comment or advise on the mind-set and philosophy that an improvising bassist ought to possess, I'm going to leave off further exposition on those other items and get to the meat...

2. ON THE MANNER OF IMPROVISING WHEN YOUR INSTRUMENT IS THE BASS

There are a few suppositions I will make that bassists attempting to improvise ought to view as pre-requisites. These include, but are not limited to, these following necessary elements of background education. Note that I don't necessarily believe that they are going to make you a better improviser; in fact they should be viewed as part of the "kit" one is advised to take along when venturing into possibly unknown and treacherous musical territories, the same way you'd be advised to take a compass, matches, and a Swiss army knife, etc., on a real camping trip...

That said, if you want to be fore-armed for successful improvisation, some of the stuff I think you should have packed into your brain and readily available are:

1. Knowledge of basic western harmony, theory and musical structure
2. Knowledge of the varied physical techniques of playing the bass instrument
3. Good understanding of your other accessory equipment (amps, effects, etc.)
4. Some wide experience of listening to varied styles of music in general
5. Some wide experience of listening to recordings of the great players of your instrument

Some folks resist the influence of such requisite knowledge, arguing that somehow this fore-knowledge compromises some quality of essential naiveté that would be lost as a result, and that there is no way to be truly original in voice unless one shuts out all these influences.

Well, that's patently B-LLSH--T. For one thing, you don't live in a cave, and you CAN'T block EVERYTHING out. For another, the originality of expression in your own personal musical voice will come out whether outside influence is there or not...you cannot help this, being a unique individual, and not a mass-produced automaton—*everything you do filters through who you are*. Experienced musicians recognize that there is repertoire, and there is pedagogy, and there is history, and that these are items of resource for the creative musician that isn't too **lazy** to take advantage of them. Of course, the things I listed require time, patience, dedication, and not a little hard work to get, so I understand how daunting it looks, especially if you haven't got any of it yet. Perhaps there are other paths to good improvisation skills, but I don't know about those. You're on your own there, buddy.

Continuing on as if you agree with everything I've asserted, let's assume you've got these 5 pre-requisites under your belt and you're gonna improvise, dammit. Let's look at three situations in which you could be doing this. I'll focus here on single-instrument solo improvisation, ensemble improvisation within a context of someone else's making (pre-established structure of some minimal sort), and improvisation you might do over your own created pre-established structure that is guiding an ensemble.

SOLO IMPROVISING

When you're all alone, there's no requirement other than that you try to be "musical", whatever that interpretation holds for you. There is only one suggestion I have for the improviser on the bass, and these reflect only my own biases regarding the instrument. It's this: **MAKE A STATEMENT**. However lengthy or short, quiet or loud, lotsa notes or few...you should actually play each note you play for a considered reason, even if that considered reason is pure random musical exploration. In my opinion music is a form of non-verbal communication, sometimes highly abstract, but often still very direct. Just make an effort to communicate whatever it is you are feeling or expressing through the medium of your instrument, as honestly, nakedly, and plainly as you can. Just as in a verbal conversation, it's annoying and ultimately boring to listen to anyone babble inanely about nothing, and the same is true in music. Note that I do not think it is very important if you are

playing by yourself to make a “*bass* statement”, although placing this stricture on yourself may suggest interesting possibilities.

(By the way, the prevailing attitude towards solo bass has been that since the instrument itself is generally played in a monophonic style (most bass chording tending to sound muddy and unpleasant) that such soloing is best kept to a minimum of short snippets, short little etudes, and brief musical passages. This has changed in the last 15 years, and there are many notable bass virtuosos whose recordings one can obtain that put the lie to these ideas. Better recording techniques and better-built instruments with extended ranges allow cleaner and more expressive chording, and more acceptance of the idea of entire bass solo pieces being musically interesting is definitely there, at least in jazz and avant-garde musical appreciation circles.)

IMPROVISATION OVER STRUCTURE OF YOUR OWN DEVISING

If you have suggested or initiated a structural basis for a musical bit, your improvisations upon the theme of the piece can be anything that you can **MUSICALLY JUSTIFY**. What I mean by this is that the allowable parameters for your improvisations should again have a considered reasoning that will determine the breadth, scope and focus of the playing you do. This should be easy to divine if you are the agent of the structure the ensemble is using in the first place. You set the foundation, you set the pre-determined character of the piece (at least minimally) and this provides a springboard for your ideas expressed in your improvisation.

The process of creative derivation, the way in which one consciously creates their expressive solo based on extrapolation from the foundational elements already presented in the structure of a piece is a well-documented and researched subject in musical education, so I won't delve into it here. Suffice it to say that with the 5 listed pre-requisites for successful improvisation under your belt, and some sensitivity and taste, you should be well equipped to derive cornucopias of musical ideas from any given base elements.

IMPROVISATION OVER STRUCTURE OF ANOTHER'S DEVISING

On the final possibility, that of you called upon to improvise in an ensemble context where the genesis of the foundation did not come from you, but that you must expound upon, I offer the following opinion.

In addition to the requisite knowledge, make-a-statement onus, and musical justification for your improvisations that I feel it would be wise to have and project, I think it might also be incumbent upon one to **DEVELOP SENSITIVITY TO THE MUSIC**. This is not the easiest concept to relate to someone. I encapsulate the whole idea in the aphorism, “*the music knows what it wants, and you only have to supply that.*”

You are probably wondering what kind of new-age mystical koan it is I am proposing, and I want to protest that and get you to consider something that is very real and very concrete, though abstract. It's the idea that if music, while non-verbal, and in many ways abstract, still comes from a rational, considered place, possibly the higher-ordered areas of the human subconscious mind translating into rational, nearly mathematical expressions of sounds and their organization in time, then this means that the music **MUST POSSESS AN INTERNAL LOGIC**, that if divined, can be complemented appropriately, in a completely non-verbal, somewhat abstract, yet ordered, rational and non-subjective way. In other words, if musical interaction is analogous to a verbal expository interaction, like conversation between people, then there are appropriate ranges of musical responses to any musical thought expressed in such an ensemble conversation. You can also sum this up rather broadly and simplistically in a statement like “it's a sad song, so it deserves a weepy solo...” –this is a dumbed-down way of saying that there is, for most music, at least some kind of concrete emotional pretext that can be used to derive a solo's potential direction.

This simple idea is very complex in analysis, and would seem to be a completely subjective requirement—since music is non-verbal communication and therefore somewhat abstract to our verbal-oriented

minds, then the way it makes you subjectively feel, and the physical improvisational response that you played that were generated by those feelings would seem to be a perfectly adequate way to conduct your improvisation.

The one problem I have with that accurate but incomplete assessment is one of INTENT. Improvisation, particularly the “considered improvisation” I’ve been describing is much more than a mere stimulus/response knee-jerk reaction. My intention as an improvising musician is not to be merely re-active, but to be pro-creative, exactly in the sense of birthing something new from a fusion of influences. Not just creative, but procreative, and so the stimulus-response aspect is merely one facet of my conscious and unconscious melding of all the attributes and pre-requisites described earlier.

Obviously, to accomplish this requires the utmost skill, focus, and sensitivity. In the same way that one could successfully imitate being a witty conversationalist for a short time by merely parroting things already said, or just by knee-jerk reacting to things already said, one could also converse musically the same way in an improvisational context. However, just like in a conversation, your lack of understanding of the subject under discussion will eventually come through, showing that you are a conversational dullard, and you have nothing new or interesting or stimulating to add to the conversation. I submit that improvising in this manner will also be simply unmemorable, un-stimulating, and ultimately dull. This goes back to the idea of making a statement that is also musically justified—if you cannot do this in your improvisations, then I fear it means that you are not musically skilled enough nor sensitive enough to the music itself to be a good improviser. This, then, goes far beyond the oversimplification of “sad songs need weep solos” assessments. It would do any creative person a great deal of good to dwell on this idea at length. In the same way that you can say someone is sad, you could also be more sensitive and describe them as “melancholy”, “bitter”, “despairing” or “gloomy” etc. The same is true for musical sensitivity. How would you play “bitter” as opposed to “sad” or “gloomy?” Just as in speech, skilled musicians are capable of quite literal shades of meaning.

THE CONSIDERATION OF THE ROLE OF THE BASS IN IMPROVISATION

I do feel that **using** the single filtering aspect of considering that it is after all, a bass instrument that you are playing, and that therefore in the context of an ensemble you might still want to improvise a part that serves *the DUAL ROLE of providing supportive elements AS WELL as being a completely creative expression*, is probably a wise thing to do, particularly if your intention is to improvise over a lengthy section of the piece itself. Such “soloing within the context of the piece” that also serves to support the remaining instruments (because they haven’t bowed out to make space for your solo, perhaps, and they themselves are still soloing, maybe) is a way of making the noble effort of responsibility while retaining creative freedom, and is also possibly the greatest creative challenge an improvising bassist can set themselves.

I mean, what could be hipper than doing a totally free improvisation that somehow manages to support the other instruments, spontaneity seamlessly married to responsibility, creatively holding the whole band together while still getting the ya-ya’s out? I submit there is nothing cooler that a bassist may accomplish.

IN THE “ZONE”

I will summarize the thoughts and ideas presented up to this point: *in order to be a successful improviser on the Bass, one must have some of the necessary pre-requisite knowledge and experience, one must strive to make considered musical statements that can be musically justified, that stem from a sensitivity to the music itself, and make those statements with real intent, also filtering them through the ideal embodiment of the characteristic function of the bass instrument.* Interestingly, when all these things fall into place for me, I feel like I’m in the “zone” that usually athletes speak of—a level of concentration and focus that seems effortless, and in which the improvisations I do almost seem to have always existed on some deeper level of the universe, and I actually feel like I am only a conduit or channel for them to become manifest on this plane. I have to admit that since I am not a person predisposed to the spiritual or metaphysical, this is a really weird feeling to have.

But it's also wonderful and magical, if you'll allow me to use those words instead.

Let me re-iterate that I am NOT saying that you have to be a music historian, chops virtuoso, or in any way brilliant or prodigal in any way. The fact is that even neophyte musicians can be effective improvisers if they deeply comprehend the points I have made, and have spent some time digesting and analyzing the implications of these ideas.

In music, it is never only about the "how" and "what" that you are extrapolating. Those are interesting and enjoyable facets of musical expression to be sure, but the place of real interest to the improvising musician is the place that the un-nameable essence comes from, the wellspring of creation, the fount, in short, the "why" that comes from the "where" of the music itself. The "where" is what I call the "ZONE". Why I play what I end up playing depends entirely on what I find there in the "zone". Although the description does not suffice to frame the complexity of the idea, one can think of the "zone" as the place inside you where the subconscious, interpretive, reactive musician and the conscious, analytical, creative musician meet.

When you are musically asked "why", and you can spontaneously summon a true, real and considered response to that question from "the zone" out through your instrument, then you will be improvising with the best.

3. GETTING TO "THE ZONE" – A PERSONAL PERSPECTIVE ON IMPROVISING IN THE BASS ROLE

One of the most pleasant and surprising, and indeed most desirable side-effects of being an improvising musician was finding that improvisation was a way to enter a transcendent state of awareness that I have come to call "the Zone", as some athletes do. You might prefer other terms, or attribute it to other causes, but my intent here is not to promulgate any specific philosophy, just to try to describe what the Zone is and what an improvising musician might need to do to try and get there.

I have been an improvising musician since 1985, when I joined PaperBag, as a replacement for departing guitarist Ken Rosser. PB had had no actual bass player for several years, and the low-end of the band was often traded off by the two guitarists, using octave divider effects. I had been playing the bass since about 1977, but was only recently very serious about it at the time that I first heard PB, and I had not done that much performing. I was in college at the time, and had taken a couple of music classes in elementary harmony, and some music theory, but otherwise I was a completely self-taught musician. When I approached the band about playing with them, they filled me in on their particular brand of improvisation, and how it worked.

I viewed the PB philosophy of improvisation as an intriguing challenge to my limited skills. The various concepts PB used to create initial conditions for their improvisations fascinated me, and it was only much later that I began to realize that these minimal conditions acted as filters or imposed constraints, and that just like a constructed waterway directs a river, these skeletal frames would also be useful ways to focus improvisations, and that basically almost anything goes as far as these imposed constraints are concerned. To give a brief summary and get the idea across, I'll give you a smattering of the kinds of ideas we worked with most often:

1. Duration – If, as Shakespeare asserted, "brevity is the soul of wit", then we would endeavor to keep all our improvisations at about 5 minutes length, since it was generally felt that longer pieces might be less focused, and we wanted to put pressure on ourselves to develop the piece into something interesting rather rapidly, lest we be accused of just "noodling around" or "jamming" –it was a mission of ours from the first that improvisation be taken seriously on its own terms as being just as potentially interesting and meaningful as any pre-composed music.
2. Alternating Conductors – We used the idea of "rotation" where the responsibility for the creation of the initial conditions used to "conduct:" the improvisation alternately fell to each band member present. This idea assured that each of us would get a chance to lay a foundation for the piece. Of course, the foundational elements could be just about anything, but there was always one condition imposed by

agreement—these would also be as sparsely detailed as possible, the most minimal constraint to get your idea translated, in order to leave the maximum room for subjective musical interpretation. One sentence or only a couple of words was best. For example, in my turn as ‘conductor’ of a piece, I might say something as concrete as “let’s do a fast waltz in A” or something as abstract as “[let’s interpret] rainy storm clouds, then sunshine” or something wacky like “[let’s try imitating] Hendrix playing Japanese Flutes in the Congo”... Yes, it was wide open to any and all ideas, as long as they could be simply conveyed, and left everyone room to express themselves within that context.

3. “Roller Coaster” requirement – the idea here was that whatever improvisational piece had just been done must be followed by one that was as different from the previous one as possible. This was also wide open to subjective interpretation, but the idea is plain: if the previous piece was a slow blues in E, the next piece had to avoid those keys, tempo, and style. If the previous piece was an abstract tone landscape, the next piece had to avoid going there again. In this way, we hoped to avoid the sameness of approach that plagues improvisations, and places the condition that you must explore as wide a range of musical possibilities as possible, all the time.
4. Besides these first three major constraints, there were also a handful of more minor, but no less important, “awareness” factors that required focus and management.
 - a. Primary among these was “EYE CONTACT”—in the middle of a piece, a conductor (or sometimes *any* player) could change the musical direction abruptly, introducing a chord change, or signaling a volume shift, or a tempo change, or indicating to another player that they should take a solo right then, and so it was of extreme importance that the players not get lost in a trance or reverie, but remain attentive to each other with both ears and eyes throughout the improvisation, ready for any possible shift to occur.
 - b. A secondary awareness factor directly related to this first one, and it was one that was also somewhat subjective. It was what we derisively called “TURKEY FACTOR”. This caveat was introduced because of the reality that sometimes one is NOT brilliant, and an improvisation may not always gel into something wonderful, or it may begin to meander, not developing quickly enough, or for whatever reason *it threatens to go to Stinkerville for an extended holiday*, if you know what I mean...as soon as any player felt this was happening they would invoke their right to yank the piece in another direction, or even signal the others to end the piece ASAP. Usually, I found that ending the piece was not as effective as attempting turning it around into something good, which would often succeed in at least providing some meager entertainment value to the audience, and in many cases would thoroughly impress them with our “last-second save” ability. It was a matter for constant vigilance and attention to always try to minimize the potential turkey factor. We pretty much all agreed that any all-improvised music ensemble should ideally have a 0% turkey factor, but if we managed to keep it below 10%, we were doing pretty well.
 - c. It should be noted that several elements of one’s individual approach can help to minimize the turkey factor as well. One responsibility is to at least try to identify the KEY the piece has as its tonal center BEFORE beginning to play along. If one has some musical experience with ear-training then this can become easier—it also helps to have a volume pedal, and to start playing very softly until you’ve found the tonal center, at which point you can come up in volume without embarrassment! Of course, with good knowledge of harmony, one can derive chord and scale possibilities to use from the identification of tonal center, and furthermore, understanding common chord progressions, one can even do a bit of anticipation on where the music might go! Another element stated earlier is the idea that you should try to make a statement that has musical validity and justification. We agreed that the note choice and performance quality is most important. In other words, just like you might advise someone that runs off at the mouth inanely, “*if you don’t have anything of value to add to the conversation, shut up!*” Considering that an ensemble improvisation is like a conversation, perhaps a few judiciously placed and appropriate musical interjections will serve the overall musical effectiveness of the improvisation better than just playing a bunch of ill-considered notes so you can be included in the mix. In many of the less-seasoned improvisational ensembles overlooking this seemingly obvious point only serves to make

their improvisations seem messy, meandering, and unfocused. As proved by PB and later on in Bag:Theory, attention to these details will often fool audience members into thinking that the improvisation was actually a thoroughly pre-composed piece of music, which we took as a very high compliment indeed, and a validation that our approach was working.

Working within these minimal constraints proved to be much more challenging than merely leaving everything wide open—in the course of a 45-minute live set we were enjoined to cover a vast amount of territory, using an extremely high level of focus and concentration, and bringing to bear all the musical knowledge and experience we were able to muster, and do it all in a spontaneous and immediately unfolding moment. It requires pulling out your capacity for creativity, sensitivity, and reactivity, all on an instant's demand. I used to fancy an analogy to painting that was like this: imagine a group of painters, with only one canvas between them, each starting from a different corner of the canvas, and without much discussion at all, trying to paint one coherent and unified work of art. As the first painter begins, the others pick up on that, but add their own colors and interpretation to the evolving art. The theory we use for our improvisations allowed us a methodology for developing and evolving improvised musical pieces.

In the course of experimenting with all the above pre-requisites, one time I felt myself enter “the Zone”. Yes, it was *all in my mind*—that's the whole frickin' point! Since then it has happened a number of times, and with slowly increasing frequency as I become a better improviser.

The fact that I played the Bass made the whole enterprise something of a serious stage-fright for me the first many times I went onstage with PB. I was acutely aware that I had a role to play that was foundational, but that I would have to be making up this foundation all the time, and that it would have to shift underneath things and never betray the band's stability, or the whole house of cards would fall! I always had the sense that if the improvisation by the ensemble were to fail, it would ultimately prove to be my fault, and this opinion came from my own (perhaps unwarranted and self-important) view of the role of the bass. You see, I had always felt that the bass, in an ensemble context, was the “glue” between the rhythmic element of the drums, and the melodic and chordal elements of the upper harmony instruments. I had the simultaneous responsibility of complementing the drum & percussion parts while at the same time providing the low chordal voice that suggested melodic movement. In my experience, a successful bass part unites the band's elements together, while an unsuccessful part only serves to make the instruments sound separated and disjointed and seem lacking in direction. I used to try to analyze why a piece worked or didn't work, and many times, the bass part was to blame. Of course, the fact that the other musicians also had to provide some initial foundation elements only absolved me part of the time—the fact was that as the bassist, I had to take their foundational idea and make it my own, and make it work, because such was my instrument's undeniable role.

Because of my viewpoint, rather than in spite of it, I think it may be more important for the bassist to be ‘in the zone’ than any other instrument in an improvisational ensemble. If it falls to you to be the uniting platform of everyone's parts then clearly you must probably be in the zone first, and in order for the others to have any possibility of successfully entering the zone as an ensemble. More likely I'm just being self-important again, but I am intrigued and humbled and strangely proud of possibly being the facilitator of such transcendent musical potentials. More pointedly, maybe it's more accurate to say that whomever is shouldering the burden of being the “glue” at any given point in an ensemble improvisation, since you CAN trade roles for a bit, has the responsibility for keeping the door to the zone open and accessible.

So how does one get in “the zone”, in order to make this happen? Certainly, ‘priming the pump’ by reminding oneself about the “rules” you intend to play by is a necessary thing to do. This might even be fairly described as a type of meditation. Serious, studious contemplation of the ideas and their meanings that I have presented could take the form of a meditation; why not? Especially if it serves to prime one's pump.

It certainly bears mentioning that our own PB & BT ‘rules’ are not the only ones, nor even the best ones, perhaps. In the universe of possible ways to improvise, the non-limits of *infinity* are the rule. But in an ensemble situation, one needs to expect that the overall gestalt of the band will play a large part in reaching ‘the

zone'. When everyone's pump is primed, and everyone is concentrating, focusing, and being actively sensitive to the music as it's happening, then there is a good chance that you'll be there. There have been times when I personally felt it, and this was not often. The times when I felt, and everyone felt, the entire band was in the zone was even more rare. What I am trying to relate is that reaching the zone is a very special and not very usual thing. The more I and the band practice our method of improvisation, the better we get at setting the pre-conditions that allow the zone to be potentially entered into for awhile, so the frequency of the experience increases.

I can only describe the feeling. I know I am in the zone when I can't seem to play any wrong notes—everything I play seems effortless and totally perfect, not just appropriate. All my notes feel like they BELONG in the piece, exactly where they are. As I described before, I also get this strange feeling like somehow the music I am playing has always existed somewhere, and I am only its conduit. Time slows a bit, and I feel effortlessly in control of my instrument, and it is not so much playing as it is “speaking” my musical expressions as easily as I might just talk to you, and I am making myself totally understood speaking as clearly as it is possible to speak—my musical thoughts are manifesting as sound as I think them, and the translation between thought, and playing action, is complete and transparent.

Finally, I'll sum up saying that I believe I could never have become as good a musician as I am if it were not for the benefits of the study of improvisation. Thinking deeply about these ideas makes me a better bassist, composer, and a better accompanist, and perhaps most importantly, continually shows me the infinite capacity of music to channel the infinite from me to you.

REFERENCES

LEVELS OF IMPROVISATION

http://www.jugalbandi-music.com/Jugalbandi_Improvisation_L.htm

<http://www.jugalbandi-music.com/ILCSfull.htm>

Other relevant articles on improvisation by other can be found here:

http://www.paperbagtheory.com/paperbag/theory_and_practice.htm

<http://www.paperbagtheory.com/paperbag/theorybagadjuncts.htm>

http://www.paperbagtheory.com/paperbag/band_member_contrib.htm

<http://www.furious.com/perfect/improvisation.html>

<http://www.gregsegal.com/somethoughtsonimprov.htm>