

Two simple steps to improve any band's sound:

Most of my life, (since the early 1970's) I've been involved in arranging music, which has included reading many standard arranging texts, and transcribing (copying) music from recordings. Having seen hundreds of hit tunes and big band charts in their written form, and being a good listener, I can tell you these facts about the most successful music, entirely based on two simple principles. For this discussion, we assume that you have the major problems solved, meaning that the music is in tune, in time, and uses sensible dynamics.

1. Frequency and Rhythm

Have you ever marveled at the clarity of certain music, noticing how all the parts are clear and easy to understand, and wondered how to achieve this with your own band? How is it that all the parts in a huge orchestra can be heard, when a 5-piece nightclub band sounds "muddy", or confusing? What about the tendency we see for bands to be too loud? Why do some songs just cease to "groove"? It's NOT just because "it was done in a studio". All of these issues can be resolved by adhering to two simple principles, which are:

- Each part should occur in it's own frequency range, and...
- Each part's rhythms need to be non-conflicting.

Here's what I mean...

Think about music (pitch-wise) from the bottom up. In most clear recordings of pop music, the order will be something like this:

- Bass parts typically occupy the bottom two thirds of the bass clef. (with an actual string bass sounding an octave lower than a standard electric bass)
- Rhythm guitar parts are typically just above that, and in a narrow range of about a 4th to a 6th.
- Chords (keyboard and/or guitar) are mostly above and sometimes below the rhythm guitar. (Keyboardists and guitarists need to keep out of each other's way, using differences in range and/or rhythm.)
- Vocals can occupy most of the treble clef, obviously varying from tune to tune, both in melody and harmony.
- Horn parts, strings, and other high parts at the top of the treble clef and higher.
- Like a piano, a drum set can cover a very wide frequency range. Since drums usually play short (not sustained) notes, and typically don't have obvious definite pitches, their individual frequencies can include this range without interfering. It's up to the drummer to place these things in the proper time frame, relative to the other parts, to keep them from interfering.

Next, the "groove" is established. Listen to almost any successful piece of music, and you'll find that the parts don't interfere. Although the overall feel of the groove might be 16th notes, for example, it's unlikely that any one instrument plays that. As a simple example, bass plays on "1" and "3", drums play on 2 and 4, with rhythm guitar playing patterns in between 2 and 4, and/or sustained notes and chords. Vocal parts are often slightly off the beat, for added clarity. It's the combination of all of those parts that creates a forward-moving, good-feeling groove. *In a well-organized groove, no one person has to play loudly, because each person is in their own frequency range and rhythmic space.*

Remember that "dynamics" doesn't just mean "everybody loud" or "everybody soft". Sometimes, it's quite

effective to have players at different dynamic levels at the same time. You might have the vocals and keyboard loud, for example, while the drummer plays something very lightly on the cymbals, along with a quiet guitar part.

Always think about the focus of the music, moment by moment. If you can't hear the vocalist, play quieter. Maybe you need to turn up the vocalist, but that comes later. In the meantime, be a good musician, and adapt to the music NOW, rather than burying the soloist. If your whole band has their ears open like this, you are on the right track. If not, you all lose.

If you're in a band where people aren't thinking about these things, then the only other way people can be heard is to play louder. Once someone starts that, then the other players will too, and pretty soon, the whole band is too loud, and you STILL can't hear anything clearly. Sometimes, the most powerful thing a player can do to improve a part in a song is *stop playing*. Experienced players sum this up by saying "Space... The final frontier".

What happens when a section of a tune calls for several instruments to play the same notes and/or rhythms, for special effect? Don't be surprised by the fact that you won't be able to hear yourself or others as clearly in this situation. It's actually a *good* sign that you can't, because it means that you're all playing exactly together. The phenomenon has a name, which is "acoustical phase cancellation". Don't play louder (or "off" rhythmically) in an effort to be heard during these sections. Just do your part, and know that it's right.

2. The groove is NOT "all about 2 and 4".

Sometimes, non-drummers get too involved in the drummer's part of the groove, which (in pop music especially) is sometimes perceived as the snare drum, being played on 2 and 4. Once, after joining a band, a keyboard player asked me, "Do you think that the bass player can lock in with your bass drum and snare drum?" My answer, having already played with this bassist, was "He should forget about my snare drum completely."

One sentence, "Don't slap your instrument on 2 and 4", should do it, but this isn't just some kind of an ego problem with drummers. There are many valid musical reasons that ought to be considered on this issue. As a rule, it's a huge mistake for anyone but the drummer to be playing accents on 2 and 4. This simple truth is backed up by a very large body of evidence...

Remember the above comments about "Frequency and Rhythm"? Well, the first reason not to do it is simply, "It's not necessary, and (for the sake of accuracy) "It's not on the recording". If your drummer isn't playing the snare drum loudly enough, then prove that to them with a recording, and ask them to correct it. Usually, that's not the problem, though.

In a typical nightclub band, where you only have 4 or 5 players, it's crucial that everyone think about THEIR parts, to form a nice groove. Unless you have an unusually-weak drummer, he doesn't need your "help" with the snare part.

A common way for people to "feel" a rhythm is to dance, or tap their feet, while clapping. Notice that most people tap their feet on the primary beat (1 and 3) and clap on 2 and 4. (the sound of "Boom, Clap, Boom, Clap") Notice that "Boom" is a low pitch, and "Clap" is a high pitch. It's a natural instinct for most people to think of the music this way. Have your drummer play the opposite, accenting the snare drum on 1 and 3, and it will drive you crazy in 5 seconds. The point is that the music should keep it's natural feel, with bass and other instruments where they belong, and drums where they belong.

How do people describe a country beat? "Boom, Chick". (not "Boom, Boom") Simple though it may be, that's a groove. Jazz is even more linear, with much less emphasis on 2 and 4. For that reason, it would be "double bad" to make these groove errors in that setting.

Accuracy:

If you care about doing a good job in a commercial band, part of that responsibility is to play the parts on the original recording accurately. You can modify them, but you shouldn't do that until you know the function of the original parts. Listen to virtually ANY successful commercial recording, and you'll find that the other players are NOT reinforcing the snare drum part. If you go into a recording studio and play that way, you're liable to irritate some engineers, too.

Not every accent is on 2 and 4. So, if the drummer plays an accent at a different spot, (very common in funk, for example) then you have these senseless "thumps" and "bumps" from the band in what should've been an empty space. Don't do it!

Rhythm "Feel":

Think about the expressions people use to describe "feel". We say "on the beat", "behind the beat", "laid back", "funky", and hundreds of other non-descriptive words. Who is the primary control of these things? In most cases, people look to the drummer. So... and this is VERY important... An educated drummer knows that the main way we control these "feel" things in pop music is by our placement of 2 and 4. (the typical snare drum hit) So, how can the drummer control the feel if everyone in the band is also accenting on the same beats? He can't. Leaving a clean opening for the snare drum is vital, sounds better, and is simply more musical.

Rhythmic Clarity:

No one, even the best musician on the planet, can identify a rhythm without a reference. In other words, if I were to simply take a single drum stick and tap out a series of constant-speed notes, you have no way of knowing "what I'm thinking". Is it quarter notes, triplets, an odd time signature, or what? Without an identifiable pulse to tell you "where the beat is", you have no way of knowing. Every player in the band needs to concentrate on THEIR parts, and not worry about "helping" the drummer.

Balance:

When non-drummers accent on 2 and 4, this has the effect of making the other parts of their groove quieter, since the inherent body language of making an accent means that suddenly the parts they should be concentrating on fade to the background.

You end up with a band of people playing loudly on 2 and 4, and the primary parts of the music, including the sustained bass notes and chords, become weak. Sometimes, young players feel this weakness in the groove, and try to "make it groove" by doing it even harder, which just compounds the problem.

The "Fat" or "Big" sound, even at low volume levels:

This is something that young players struggle with, and often is related to them playing on 2 and 4. A bass player, for example, who should be playing sustained half notes on 1 and 3 is now cutting those notes short, in order to slap their bass on 2 and 4, thinking that they're "reinforcing" the groove. Actually, they're destroying the groove, because the "fat" bass sound is now cut short. The same goes for any other instrument. A "fat" sound is created by the use of sustain, (not volume) on the part of the other musicians. Remember that (excluding rolls, cymbals, and reverb) drummers don't play "sustained" parts. We drummers depend on the band to do that, while we provide a reference rhythm, reinforcement, and dynamics.

Pitch interference:

The young musician who is "reinforcing" the snare drum accents is really undermining the sound, because they're adding unnecessary frequencies that reduce the band's clarity. A bassist thumping on their bass is loading up the snare accent area with unnecessary low frequencies, and the guitarist or keyboardist who does it is typically adding mid to high range frequencies which are equally unnecessary. When the drummer is playing a "rim click", such as during a latin tune or a pop ballad, the effect is even more out of place.

Snare drums will "buzz", when other players in the band happen to play notes or chords that are in the same frequency range as the drum. The more random playing that's done on 2 and 4, the higher the chances of creating such a noise, and in the extreme case, they can actually "choke" the drum, by making it vibrate at these frequencies, rather than resonating naturally on it's own.

Suppose you had a drummer who had an electronic gadget (or even a triangle, for example) that produces a certain pitch. How would you feel if the drummer decided to "help" you with your parts, by playing that gadget over YOUR rhythms , even when the pitch of that instrument was the wrong one? I think it would get your attention very quickly.

The Tambourine Effect:

Another reason that players shouldn't duplicate the snare part is what I call "the tambourine effect". Have someone play tambourine on 2 and 4 during only the first half of the verse of a song, then stopping, while the band continues. Do you hear how it grabs your attention when it stops at such an odd place? That's what happens when those players who were duplicating the snare drum part suddenly stop, to play another part, a fill, or whatever. It's more disruption, adding to an already-clunky groove.

Wear and Tear on your body:

Here's a little simple math to consider... If you're playing typical pop music, most of it will be at tempos around 120 beats per minute. If you're playing 8 of those 4-minute songs per set, and the drummer plays snare drum on 2 and 4 on all of them, that's 1920 snare hits per set, or (in 4 sets) about 8000 snare hits per night. (not counting fills, etc.)

So, if you're playing something other than drums, that's close to 8000 extra notes per night you're playing, that are completely unnecessary. Save that wear and tear on your body, and take a break. Think of it as your reward for using good judgment.

Summing it up

If the players in your band remain focused on their own parts, with each person adding the appropriate part to the music, then everyone will be happier, and the band will sound much better. Everyone contributes something positive, everyone gets heard, and you can produce "fat", nice-sounding grooves, even at low volume levels. If you need any further proof, all you have to do is listen to successful recordings, because they're all made that way.