
Moves on Touchboard

by EMMETT CHAPMAN

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Emmett Chapman's 10 stringed Stick, requiring neither picking nor plucking, produces its haunting sound merely by touching or tapping the strings with the fingers of both hands. The Stick has a lower bass register, tuned in fifths, and higher melody register tuned in perfect fourths. Hands play in conjunction or independently, making the possibilities for composition fascinating.

Music like religion can be many things to many people. It fulfills a variety of basic human needs, some of them contradictory.

People tend to get carried away with one or another of these concepts and say that this is what music is all about.

Music can either soothe or excite the emotions, is for the head or for the body, is familiar or novel, harmonious or dissonant, is orderly and balanced or drunken and extreme, can exalt that faculty of mind that feels spirituality or else let the sensual nature dominate.

At a more basic level, music can be a language where many people can talk at once in multiple conversations of varying shades of harmony and dissonance. It reaches closer than the other human languages to that central area of consciousness which notices the shape of movement, and which translates sounds, sights, speech, and thoughts into this special mode of perception.

Or music can be emotional therapy, especially for the benefit of the players. In certain blowing sessions the player and listener can experience animal terror and all-pervasive peace, along with many emotions of a more subtle nature. Emotional energy is expressed and released. The insides are massaged, giving tone to the organs and nerves.

Therapeutic also, is music that makes you want to dance or at least, dance in your seat. Not only are the ears willing, but the muscles and body are ready to apprehend and memorize good dance music.

Or music can be a banner, an inside style of expression for a group of people who identify together for reasons nationalistic, generational, religious, and back down home.

But most of all, and what I like best by natural bent, music can be a game! When I see Jan Hammer appear on stage in sweatshirt and tennis shoes, I get the feeling it's a game.

When I hear John McLaughlin's Shakti, or his earlier Mahavishnu Orchestra, playing permutations on the odd-numbered rhythms, and communicating to the audience their mathematical ideas and reflexes, then I feel there's a new game in the wind.

When I try to decipher the hieroglyphics of a bass player's left hand on the ebony, or try to read the fingerboard geography of a guitarist, I'm learning the game.

When I take an instrument, figure out its particular logic, and work out systems for improvisation and practice, then I'm mastering the game.

I should say, music starts out as a game. Ideas gotten from casual improvisation later crystalize by repetition and rediscovery, and become elements of composition. In this context composition no longer is a game, but is an artistic end-product like a sculptural or an architectural work, the creating process having been completed.

The game should consciously be set up so that the musician can be prolific in creating musical ideas, not only while practicing, but in performance too.

The ideas come from various body energy sources. Ideas from the head are conceptual. They can be heard or sung, with immediate translation to the instrumental technique.

Ideas from the hand are both tactile and kinesthetic. They can be felt as shapes, the shapes being sketched in hand and finger movement. Reliance on the hand as a source of ideas can either box you into preconditioned patterns, or else catapult you into instrumental realms beyond your ability to conceptualize.

Ideas from the eye are spacial and geometric. They can be seen as designs and patterns. Visual perception is far ranging. You can see ahead,

transposing, inverting, and modifying a single visual idea into different tonalities, registers, styles, and rhythms, like the classical composer.

Music can be a game on a board. My instrument is a Touchboard, which I also refer to as The Stick. It sets up a new game where moves are made upon the board.

Instead of moving "men", pawns, or checkers to various positions, you move your fingers, tapping the strings against the frets with both hands, each hand independently sketching lines and shaping chords.

This Stick technique introduces a new language into stringed instrumental music, a language that includes the opposite qualities of percussion and sustain. Strictly speaking The Stick is a percussion instrument, the strings being struck or hammered against the frets with the fingers.

In this respect the fingers operate like vibes mallets upon the strings, percussively. From another point of view The Stick is like the old clavichord and produces a very similar sound. On The Stick the tapped string collides with the fret. On clavichord a fret-like metal bar, on the opposite side of the lever from the key of the keyboard, collides with the string. In either case the vibrating energy conveyed to the string is initiated at the very end of that string's vibrating length.

I feel the strong relationship of my instrument with guitar, out of which The Stick slowly evolved for me. I was a jazz and rock guitarist and went through many basic changes in playing technique and instrument building, culminating in five Stick prototypes and the present Stick design and playing concept. Still, the guitar is not a percussion instrument.

Tapping alone is not all there is to playing my instrument. The technique of tapping the strings against the frets brings out the percussive side of The Stick on both bass and melody, making it easy to play fast and meticulous rhythms.

The sustaining voice is brought out by holding the strings down on the frets. While a finger holds a string down on a fret, vibratos and pitch bending can be added to the sustaining note, by movement either of the arm, the hand, or the finger itself.

It is more accurate to say, then, that The Stick is played by both hands individually tapping and holding strings against frets. Holding and tapping are the essential elements of the basic playing technique, and constitute a totally unique approach to playing a stringed instrument. The tapping action is a rhythmic element, causing the sharp attack sound on each note. The holding action is a singing, melodic element, causing each note to have a duration, and adding expression

to the line by subtle forms of pitch bending.

I must add that when you hold and sustain notes, you get more than the singing, horn-like sounds, you get into the feeling of spatial relationships between musical intervals. You hold onto what you have, and let it sustain, until you hear your next idea (the rhythm goes on). Then you feel, or see, the intervallic shape of that idea, and how to get there. You might explore it first with one hand while the other holds onto a note with common affinity to both ideas passing and present.

This sensation of holding onto what I already have, then reaching and grabbing for another block of notes, works powerfully for me in performance. It's a gameboard approach, like moving chessmen from here to there, according to their individual patterns.

The tuning of the strings is part of setting up the game. The ten strings are divided into two groups of five. The first group has melody strings tuned in uniform descending perfect fourth intervals. The second group has bass strings tuned in uniform ascending perfect fifth intervals. The fourths, pitch descending, match the fifths, pitch ascending. The first and eighth strings are the same letter-named notes at any fret, but are two octaves apart. Likewise the second and ninth strings are one octave apart, and the third and tenth strings are in unison.

The lowest bass string is the innermost, sixth string at the center of the Touchboard, tuned to C below low E on bass. The lowest melody string is the fifth string, also at the center of the board. The strings on both sides get higher toward the outside.

The melody string group is like guitar, but without that instrument's major third interval between the second and third strings. The Stick's melody tuning is straight fourths.

The bass string group most resembles cello, but has five strings instead of four, and extends into a lower register. Also, the sequence is reversed, so that the fifth intervals match the fourths in the melody.

Transposition in all directions, without change of shape or sketch, is the name of this game. The easy transposition leads to structured improvisation, and then to composition.

A bass root, for example, in the left hand, played with the major triad in the right hand, can be easily moved up and down the frets, as on guitar, transposing this bass/chord unit from, say, G to G#. to A to Bb.

But the same unit can also be transposed to different combinations of strings at the same frets, from G to C to F, the root moving down in pitch by fifths while the triad moves up by fourths. The shape remains the same, and there is a bass root relationship



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to each major triad, but the bass moves in contrary motion to the chords.

Transposition of the major triad, or of any chord or melodic lick, can move along the Touchboard or across it, or diagonally. An octave, whether in the bass or the melody, has the same shape on any set of strings, the two notes being separated by two strings and two frets. A flatted fifth interval has the same shape on any set of strings in both string groups, the notes separated by one string and one fret. The shape of fourths in the melody is fifths in the bass, and vice-versa. Major thirds in the melody are minor sixths in the bass, and minor thirds in the melody are major sixths in the bass.

The shape of any chord in closed voicing in the melody becomes an open voicing of the chord when played in the bass.

A chessboard environment is set up for the fingers to move on. Patterns of notes that correspond to moves of the various chessmen also correspond to known systems in music theory.

Scalar melody playing, moving stepwise through the major and minor seconds of a particular scale, is equivalent to moving pawns.

I'm reminded of the castle when I get into some of McCoy Tyner's melodic and chordal ideas with Coltrane that involved fourths, fifths, and major seconds. The directions of these intervals are either across the board or along it. Playing across the board gives you fourths in the melody and fifths in the bass. Playing in the direction ninety degrees away can take you along the board for the major seconds.

This technique of the castle takes you into a truly instrumental form, interval playing, as opposed to scale playing, which is more a melodic and thematic form.

Moving diagonally, you're placed inside a whole-tone scale, like moving one of the bishops. Out of the

possible tempered tones in any octave, only half are played in the six-note whole-tone scale, like moving on only the red squares of the chessboard. You can move diagonally from string to string, covering the intervals of the flatted fifth and the major third. Or you move on one string, skipping frets to play major seconds.

The black bishop covers all the remaining squares, which are black, just as the only other possible whole-tone scale covers all the spaces left by the first.

The queen can move any distance in any direction, corresponding to atonal movement of melody and bass lines, and novel chord voicings.

The chessboard, or gameboard, approach concentrates on the harmonic component of music. Practicing solo on the Touchboard, you find the ways to relate chords to other chords and to scales, and to shift tonal centers, but not arbitrarily. Rehearsing and performing with other musicians you communicate the musical ideas you all share in common, and find the ways to improvise together.

There are other components that add to the game, such as rhythm and numbers, as in the classical music of India.

At this time of the 1976 Olympics I'm sure many musicians, myself included, have been watching the televised athletic events at Montreal, and practicing for chops under the inspiration of athletes striving for beauty, strength, speed, and excellence.

