

“free stroke”; they have even taken into account the “exceptional case” of playing on the sixth which has no adjacent string to stop the movement of the finger.

These schools have employed the fingers as the *only* mechanical storehouse of the guitarist. It is high time to understand and assimilate, once and for all, the basic concept that *the fingers cannot and must not work alone and in isolation*, deprived of their own proper resources, the hand and the arm, which have for so long been neglected and the very existence and potential of which have been ignored.

B. STRING ATTACK

Obtaining a pure sound from a string is related to *two very important factors*, the first of which has to do with the perpendicularity of the trajectory of the fingers across a string. The attack must occur at only one point, something that would not be possible with an oblique trajectory. This is the way to ensure the full vibration of the string as well as to minimize waste. Any “skating” by the finger on a string should be avoided, for the ensuing friction is likely to produce a secondary sound, better referred to as a type of background noise which has nothing to do with the intended sound.

Even when the attack is effected at one single point, however, there is nonetheless some friction which might be audible. This brings us to the second factor, that of the *speed of the attack*. The interval of time during which the inevitable friction is produced when a finger strikes a string must be reduced as much as possible by minimizing the duration of the stroke. For example, a slow stroke lasting, say, 1/3 second, embodies a friction (with its inherent noise) of the same duration. Now, if this friction time were to be shortened to, say 1/10 second, the accompanying noise even though still present would be virtually imperceptible owing to its very short duration. For this reason, *a fast and constant speed of attack* should be developed and used whether playing *piano* or *forte*. This applies equally well to the thumb (which has been treated extensively in the preceding chapter) as to the index (*i*), middle (*m*), and annular (*a*) fingers.

Each player must develop his own constant speed of attack which (though invariable for him) might very well be different from that obtained by another guitarist. What is important to realize is that *piano* should not be associated with *slowness*, for such an attack would deprive it of its real quality and bring with it a host of undesirable noises. *A piano is to be performed with the same speed of attack as that of a forte.*

How then is one stroke to be differentiated from another? The difference lies in the amount of opposition placed against the string, and this is determined by the *mass* and the *muscles used*. Shortly it will be seen how this is a function of certain elements: the employment (1) of simply one phalanx, (2) of the muscular aggregate (all the muscles of a finger from its very base), or (3) in the most demanding cases, of the vital co-participation of other muscles through *fijación*. Consequently, the greater the opposition the louder the sound will be.

The development of technique must lead to the full consciousness of the fingers and to the complete independence of their movements. This independence first takes place in the mind so that not only can the separate activity of each finger be controlled, but at the same time the unnecessary movement of the unengaged fingers be avoided.

Two phases in the activity of the fingers need to be separated and well-defined. These are, firstly, the *natural contraction of the muscles* required both for the attack and for the restraint of the impulse, and secondly, the *sudden cessation* of all effort by the muscles once the activity of the fingers has come to an end. If a muscular contraction is allowed to persist unduly, all freedom is lost. It would be convenient to recall that it is as important to control and contain the attack as it is to deliver it. *The attack should only be considered complete when it is accompanied by a restraint, one that follows it like a shadow.*

The contracting of one finger should not induce a contraction in any of the others whether they be adjacent or not; on the contrary, they are to remain isolated and in complete repose. Neither should the *movement* of a finger be transmitted to its neighbor, since this could only serve to hamper the performing fingers which should feel totally free from one another in order to be capable of responding immediately to the performer's will. Needless to add, the obstruction of their movement would mar the attack as well as detract from the general clarity of the playing. It can be concluded that *the state of repose and immobility of the fingers that are not performing is no less important than the activity of those that are.*

C. DIFFERENT STROKES OF INDEX, MIDDLE, AND ANNULAR FINGERS: "TOQUES"

With the hand in its Natural Position (Chapter II), the index, middle, and annular fingers (which will henceforth be referred to simply as *i*, *m*, and *a*) are placed ready for playing; they will be naturally situated over each string, and in their contraction will be able to execute a simple stroke. During this initial phase, the dynamic range is relatively restricted and the intensity and color produced by all the fingers homogeneous. Variations in the stroke of each finger are obtainable through the exploiting of other factors; the intelligent handling of these resources will provide the imaginative player with the possibilities of emitting various dynamic and timbre nuances.

The strokes used to effect different dynamic levels also require different forms of behavior of the fingers. Each *forte*, each *piano*, each isolated accent requires a special stroke the execution of which is intimately tied up with a specific dynamic level. Each additional amount of force, each increment in dynamics is made possible with a *different attitude of the fingers*. An increase in volume calls for, little by little, a *mélange* between the free and unrestricted movement of the finger and the *fijación* of its articulations; in extreme cases, the hand and the arm may come into play, bypassing the direct participation of the phalanges. Between the free movement of a finger without *fijación* (see *toque libre* below) and those extreme cases, *there can be no precise point of demarcation—in fact, there is a whole strip or zone of transition.*

The different strokes and their uses will be outlined below. In order to facilitate their understanding and study, they will be enumerated and defined, but it must be clear from the start that it would be fruitless and even harmful to treat them in practice in this isolated way. Actually, all of this must be assimilated and transformed into an organic whole: it is in the leveling and blending of the different attacks that the subtle colors and the right dynamic levels will be found. As far as the spectrum of timbre is concerned, it should be mentioned that the fingers take on a very special attitude, one differing considerably from that for dynamics.

Toques*

1) In order of intensity

Toque 1—libre (Sp. adj. "free").

This *toque* is useful for playing individual notes, arpeggios, or chords softly (*piano*). The movement of the finger is free in the sense that none of its phalanges is in *fijación*. A constant speed of attack makes it a nimble and sprightly stroke. The original impulse is to be transformed immediately after the stroke into a restraining motion which avoids affecting the adjacent string by curling and cocking the finger upwards.

● axis of movement

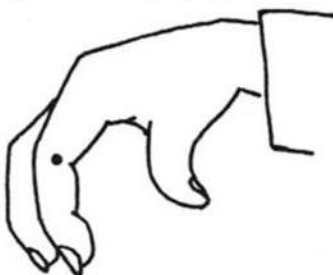


Fig. 1 Toque 2

Toque 2.

This louder *toque* necessitates the *fijación* of the last joint in such a way that phalanges 2 and 3 together form almost a straight line. The axis of movement is found to be at the articulation point between the first and the second phalanx. (Fig. 1).

The greater pressure of the finger against the string (when compared to that of *toque 1*), is due to the addition of new muscles that come into play through the *fijación* of the last joint.

● axis of movement

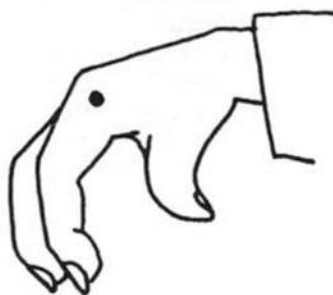


Fig. 2 Toque 3

Toque 3.

This stroke requires that the axis of movement be displaced to the base of the finger, i.e., where it joins the hand (Fig. 2). The rest of the articulations remain in *fijación* avoiding, however, the formations of a pronounced arc; the whole finger will thus

* *Toque* (to' kay) is a Spanish word (lit., n. "touch") which will be used here when referring to the particular types of strokes that can be employed.

be able to function as a single unit *through its muscular aggregate*.*

● axis of movement

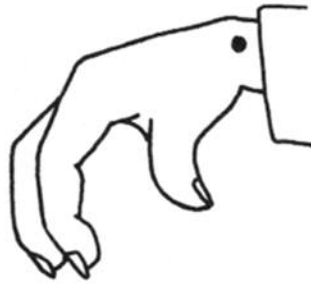


Fig. 3 Toque 4

Toque 4.

This stroke permits the active participation of the hand, the effectiveness of which is only made possible through the *fijación* of the articulations of the finger(s). *The axis of movement is in the wrist* (Fig. 3). When a good deal more force is required, however, the arm takes on an active role in which case a certain amount of *fijación* of the wrist—as well as of the fingers—will be needed.

(It is important to realize that the movement of the fingers and the hand is not abolished in *toque 4*. In fact, it is rather the opposite: they may take on an activity parallel to that of the wrist and arm. This will permit the convergence of various elements to participate directly in the attack.)

2) *In relation to timbre*

Toque 5 (Toque por tímbrica).

There is a stroke in which a *crooked* angle is formed between the last two phalanges by fixing (*fijación*) the articulation between them. A permanent effort maintains the pronounced and firm angularity of the finger. This *inflexibility* is made *a priori* and is unrelated to the actual strength employed in the attack. *Toque 5*, therefore, is not determined by the extent of movement but only by the amount of angularity, and hence

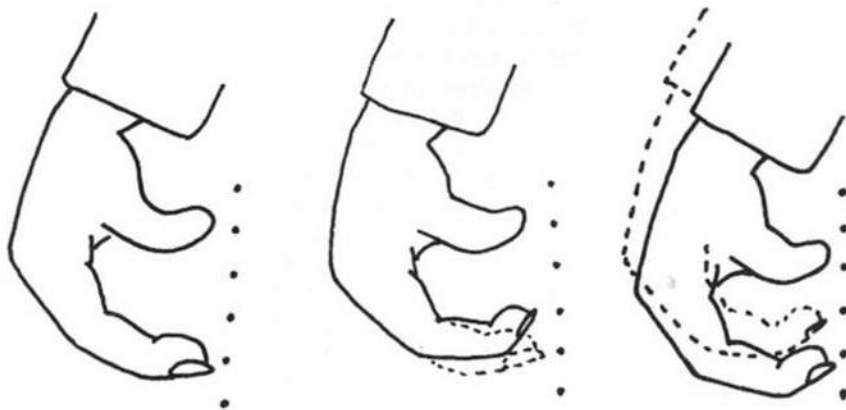
* It might be useful to indicate that the description for every one of these *toques* is to be taken more figuratively than literally. In each case, the real axis of movement of the finger can be said to originate in the articulation between the hand and the first phalanx, i.e., where the finger actually begins. In the text, therefore, the axes of movement for *toques 2* and *3* refer to the fact that the articulations mentioned are not rigid but rather free to move, the inferior phalanges being activated through *fijación*. Another way of defining these strokes could consist simply of specifying that from one *toque* to another, the increase in dynamics is a product of the use of a greater amount of mass that participates actively.—Translators' Note.

rigidity, which the finger assumes in its opposition against the string. When this *degree of rigidity* (which is prepared in anticipation to the stroke) *is varied*, a wide spectrum of timbre is made available, one which includes, amongst others, the following shades: *claro* (clear), *poco metálico* (slightly metallic), *metálico*, and *aspro* (harsh and hitting), produced respectively by going from a lesser to a greater amount of rigidity.

There is a second force to be reckoned with, one related to the movement employed in the very attack. As opposed to the force and rigidity that give the finger its crooked form, this has to be done *lightly and with subtlety*. Hence, in spite of the rigid and solid structure of the finger, its attack must not be hard. The available dynamic range for this stroke commences with *pp* and continues as far as *mf*; this upper limit must never be exceeded lest the quality of timbre be replaced with an undesired effect, a clank.

For the color stroke being treated—*toque por timbrica*—the role of the nail is very important, striking with its sharp angle as if to yank and lift the string. It is, however, the lightness of the force of attack that transforms what would have been a disagreeable noise into the finesse of timbre.

It is important to realize that due to the finger's attitude in *toque 5* the last phalange, which is folded in order to maintain an angle, momentarily loses its usual location with respect to the string. *It is therefore vital to readjust the position of the hand slightly* so as to bring the finger back to its precise place over the desired string. The three drawings in Fig. 4 illustrate this point.



a. Natural *toque*

b. The finger at an angle

c. Readjusting the hand

Fig. 4

3) Variant of *toque* 1 as a singing element

When *toque* 1 is associated with the hand, a singing potential of major importance and usefulness for delineating certain phrases becomes available. This has no direct relation to the range of *toques* 2 through 4 since no *fijación* of the finger is needed, nor is it related to the stroke for timbre, *toque* 5. *It has its very own identity.* The nobility of its sound and its extremely subtle quality are intimately linked to the concept of the singing voice.

Mechanics: The finger by adopting an attitude as in *toque* 1 becomes a passive extension of the hand to which it *delegates the movement.* Furthermore, the combined action of the flesh and the nail is required. Consequently, touch is closely related to this stroke, and with a keen ear measured variations in the quality of the sound are possible. Thus both the flesh-nail unit and the activity of the hand are essential.

This variant which is made possible through *toque* 1 in conjunction with the hand *from which we get the movement* (increased pressure), and with the flesh-nail unit *which supplies the physical element* that strikes the string, gives us a sound that is impelled, malleable, at times intimate and warm, at others more external, but always of a singing nature and, most of all, a sensory warmth that is both delicate and subtle.

As volume is increased, *the last joints of i, m, and, a should not be bent* since doing so would result in a harsh sound accompanied by noises (from the buzzing or slapping of the string against the fingerboard). On the other hand, the *toque* for timbre *necessitates* the bending of the last phalange since this is how color is made to stand out, *but care should be taken not to exceed the dynamic range of this stroke.*

Each of these types of strokes has to be controlled by the *restraining of the impulse* as defined in Chapter 4. At the same time, both the *active force and its restraint* (the opposing force) must come into play. This is the ideal towards which our work should be aimed. We should never let the finger perform without foreseeing the resistance: potency and resistance, force and its opponent, have to go hand in hand to obtain maximal results and the surest and most efficient control.

Now that we have this information, WE CANNOT CONTINUE TO DISCUSS THE REST STROKE AS A SYSTEM ANY MORE. *The concept of fijación totally transforms the attitude of the fingers so that what used to be called "rest stroke" has no longer any logical reason to exist.* Why interfere with an adjacent string without any real purpose? There may perhaps be some leaning against a string AS A CONSEQUENCE of a particular force (and only if there is no need to avoid it) but this should NEVER BE AN END IN ITSELF.

It is to be understood that the preliminary work of the student should involve the fingers exclusively, leaving out in this first phase the differentiation between *toques* and any participation by the hand or the wrist. This belongs to a later stage. The initial study of the right hand is concerned with the *toque libre* in which the articulations are mobile and free from *fijación.* As for timbre, no particular one should be sought—just the natural sound of the string. Later, as the fingers are trained and are related to the music, other elements (dynamics or timbre) in the playing of specific notes can be introduced, and from here on the different *fijaciones* can be studied.

All work has to be done with ease, and although correct playing requires a good deal of attention, work should be attained naturally. We must never forget that muscular relaxation enables us to avoid the permanent tension which leads to fatigue. By intelligently making use of relaxation, a prolonged exercise is greatly simplified. No fatigue is produced, and an increase in the duration of work is possible with less expenditure of energy.

This method of study, with the help of a structure that consciously guides every movement to be made, acquires greater solidity and insight. The student can verify the results within a short period of time and will be able to adopt the right attitude for every problem that is presented.