

FROM A GUITAR MAKER'S NOTES:
STRING ? TENSION
BY SEBASTIAN STENZEL

Most guitarists have observed that strings of the same brand and the same grade of tension can feel completely different on different guitars. This is by no means a matter of imagination, but rather a precise perception. We tend to forget that the string is not an isolated thing, but is fixed on both ends. Any tension of the string must be met by a counter force from the stability of neck and soundboard of the guitar. Both, string and soundboard are deformed until a point of balance is reached. For this reason we don't feel the tension of the string alone, but rather the "tension" of the soundboard.

Tarrega's widow, Maria Rizo, wrote 1920 in a letter¹ to the lady who's father had acquired the last of three Torres guitars that had belonged to her husband:

"... but I kept for myself the rosewood one, which constitutes a relic, because it was the one he played most and moreover the one he appreciated most because of its excellent sonority and its firmness of the strings."

"Firmness of the strings" is a poor translation of the Spanish original "fijeza rrestistente de pulsación", which precisely means the resistance felt in the fingertips when plugging the strings.

But there is a third factor: Not only strings and soundboard establish a certain balance, but also the mass and muscle tone of the players hands have to be in a dynamic balance with both strings and soundboard. A player, e.g. with strong, heavy hands, will be dissatisfied with a guitar with a soft soundboard. He will feel that he has to keep himself back and control his strength too much. Vice versa, a player with a small, light hand, will have to work very hard on a guitar with a tight soundboard. For professional players who play guitar many hours a day, both cases can eventually result in a damage of joints or nerves.

It would be a misconception, though, to try compensating a tight soundboard with soft strings. It is rather high tension strings that will bring such a soundboard closer to its best working tension. Equally, a soft soundboard might be overpowered with high tension strings, and will in most cases work much better with low tension strings, even though the volume might be disappointing. When the balance of string tension and soundboard tension does not fit at all with the players hands, the best advice is to look for a more suitable guitar.

¹ This letter was published by J. Romanillos in his book on Antonio de Torres, Element books Ltd. 1987