

G.Martin Switzerland

“Give me the material, and I will build a world out of it! That is, give me the material, and I will show you how a world has come into being.”

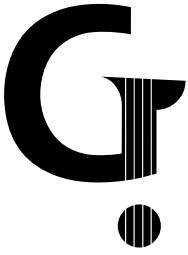
Immanuel Kant

A musical instrument is an object of art in which all perceptions are combined, appealing to the eye, ear and touch. It carries meaning and creates dialogue with all existing things in an invisible, intangible and immutable web of order and harmony. True beauty is born from usefulness: good work produces a good instrument as a good touch produces a beautiful sound.

The quality of an instrument which is only perceived and evaluated by our senses – by our ears in fact – is not easy to define. The primary demand in such an instrument is for the beauty of sound, its power and reach, its fullness, softness, purity, balance, and timbre. Timbre is a quality consisting of two elements: richness and character. Richness depends on the quantity of certain harmonics vibrating simultaneously with the fundamental frequency while others are silent. Character is based on which of these harmonics are more dominant than others. To be able to appreciate richness, the ear needs to be trained, but character is a question of personal taste. Musicians rely on the character of the timbre to choose their instruments. The phenomenon of what character different people like or dislike is very similar to that of preferring different smells and tastes.

A powerful instrument can never give way under our fingers or bow but will respond to them with grace and exuberance, drawing from its inexhaustible supply of sound. From power comes the instrument's reach. Some instruments can seem powerful when we are playing them but their sound will not reach far enough in a concert hall; others may seem softer to the player, yet their music can reach the farthest corners of vast naves – such instruments are truly powerful.

The sound of the instrument should not be dry, muffled, gloomy, or dull; it should be full, not thin. Softness should not imply weakness, a soft sound should lack neither power, nor reach. And if one note sounds full and loud and the next thin and weak, the instrument is not balanced. Even when playing the highest notes, the E as well as the G notes, no matter how short the vibrating part of the string, the latter still needs to respond to the lightest touch and produces a pure and unbroken sound.



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In my work, **I study different types of tone wood** and test what thickness works best for each of them to produce the perfect sound. When the instrument is too thick, its sound will be dry, narrow, sharp and not reaching far enough; such a sound reminds us of the sharp American pronunciation of the word bed. Thin instruments, on the other hand, sound hollow, dull, clouded, opaque; much like the pronunciation of boot. Only when the thickness is perfectly balanced will the instrument reliably produce beautiful and ample sound, such as can be compared to the pronunciation of spa. The back of the instrument should not be too arched to be able to resonate properly and spread the sound. The size of the sound holes is also very important since the ability of the back to resonate depends on it. The central part of the back retracts with vibrations and applies pressure on the sound holes, which react by forcing it to move further away from its original position. Thus the “sustatory” motion of the back becomes as wide, quick and continuous as possible, producing the purest sound. This motion is prompted by the vibrations of the top plate, pressure of the air inside the sound box and by transfer of energy through the sound post.

Productivity and creativity are the basic characteristics of homo faber, creator and maker. The transition from what (the object) to why (the purpose) through to how (the making) suggests that objects can no longer be seen as fixed, nor as eternally moving, they are a process; they will not become a part of nature or the universe, but of history and culture. Only those which carry meaning will remain what they are. Only those born from passion will remain unchanged, not devoured to satisfy desires. Only those originating from thought can transcend ephemeral motion.

The process, not abstract ideas or mystical contemplation; the models and forms of future things, not theory, guide the productive activity of homo faber of every era. Nevertheless, we must not cease to wonder at the miracle of existence, even when the craftsman has the ability to peek inside the model form of the object yet to be created. Plato saw that art is not a creation, but a mere imitation, it is not a product of the human mind – it is a part of it.