

SHOPPING SMART

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Did you know there's a right way-- and a wrong way-- to shop for a piano? Well there is. The way most people shop-- the wrong way-- is by picking out a piano based on price, color, or the name on the front. Usually the piano purchasing process begins with online research and a rough budget and ends in a piano showroom with a salesperson pitching one or two pianos. Knowing that to the untrained eye, most pianos look the same, and knowing that the customer is completely out of his or her element, the salesperson often proclaims one particular brand of piano to be better than all the rest, and it just so happens to be on sale today for the low-low price of exactly what the customer said they could spend. After forking over a huge chunk of change, the customer leaves with the idea that he got a great deal on a great piano. But did he?

This is the wrong way to shop for a piano.

Because while price, color, and the name on the front are important, that's just the tip of the iceberg. Did the customer choose the right piano and get a good price? Or did he get sold on the dealer's preferred brand? There's a whole universe of knowledge about what makes a world-class piano, where to find one, and how you should buy one. Want to become an informed consumer, more educated even than your salesperson, and armed with all the tools you need to choose the piano that will last for generations?

This is Shopping Smart.

How many brands of pianos do you know? Most people can name three or four. But did you know that today there's still over 70 different piano manufacturers in the market? Some of these brands even have up to five different levels of quality, and countless different sizes, models, and finishes. So, where to begin? Well, it all starts with understanding the industry as a whole.

Pianos are manufactured all over the world. They come from China, Japan, Italy, Poland, and all over. Believe it or not, there's still a few pianos that are made in the United States. But the finest pianos in the world, without a doubt, come from Germany. You see, Germany has a long and serious history with pianos and the craft of piano-making. They understand that while pianos CAN be built for cheaper, a handcrafted instrument constructed of the highest quality materials is necessary to create a world-class instrument.

See, in a mass-produced piano factory, like many of the ones you'll find around the world, pianos are built to serve a specific price point. In these factories, thousands of pianos are built at the same time, and they're built as fast and cheaply as possible. Their most important feature is their cost, both to the manufacturer and to the consumer. Unfortunately, lower cost quite often means lower quality. In a handcrafted piano factory, on the other hand, quality is paramount. In these factories, handcrafted pianos are built by master craftsmen, two or three at a time. They

use the highest quality materials and workmanship that money can buy. Generally, these pianos are found on concert stages and performance halls and luxury mansions and command a very high price.

But what if you could find an instrument with the quality of a handcrafted piano but the price of a mass-produced one? Believe it or not, it's possible, but you need to know what to look for. Here's where to begin.

Generally, pianos can be classified into two groups: high-tension and low-tension pianos. This refers to the tension of the strings in a piano, which can be as much as 20 tons! Top of the line pianos are usually built with such high quality materials that the sound produced by playing a single note is colorful, rich, and full. The instrument naturally allows for a range of volumes and tones. With such a naturally produced spectrum of tone, these pianos can afford to use strings that are not strung as tight. Hence, low-tension.

High-tension pianos, on the other hand, make up for the lack of quality of materials by pulling the piano strings to a much tighter degree, which hides the lack of color. These high-tension pianos produce a thin, bright sound and generally won't last more than 50 years or so. Think of all that tension on the strings slowly pulling the piano apart! Where did these two paths of pianos begin? Why do low tension pianos create such a rich tone, while high tension pianos are so bright? It all comes back to harmonic tone.

See, in the 1870s, a young piano company by the name of Steinway & Sons hired a German physicist named Hermann von Helmholtz to help them build a better piano. Von Helmholtz took a year to research and came back with findings that changed the entire piano industry. He discovered that when a string vibrates, each point on the string creates a different sound. These are overtones and undertones. Chart out the frequency of each of these tones and you come away with something called the Circle of Fifths, the scientific basis for all Western music. What this means is that when you play a chord, you're not just hearing one sound. You're actually hearing thousands of different overtones and undertones.

Why do these matter?

Because the combination of just the right overtones and undertones is what produces the most full, most vibrant, most pleasing tones. In fact, high-tension pianos are actually producing completely different harmonic series' than low tension pianos. Don't believe me? Go play a nine foot concert grand on stage at your local opera house-- maybe ask permission first-- then compare it to the eighty year old piano in your great-grandmother's basement. See the difference? This is low tension vs. high tension.

So, how do we get a low-tension piano? It's all about the parts and pieces.

Strings, keys, hammers, actions, pin-blocks, and on and on and on. Most grand pianos have well over ten thousand different parts. Where do you begin? What do you need to look out for?

There's a few big ones. First, the rim. The rim is the big layer of wood that runs all the way around the outside of the piano. It's made of two parts- an inner rim and an outer rim. Believe it or not, it's shaped that way for a reason, and it's function is super important. In addition to providing a secure support system for the entire instrument and serving as a bed for the soundboard, the rim works to improve upon the sound vibrations produced by the piano, not inhibit them.

The best piano rims are continuous, made of hard rock maple, and will have both the inner and outer rim shaped at the same time. Low quality pianos might use particle board, foam, or porous woods like luan, and while they might be painted with the same shiny paint on the outside, their differences where it counts are worlds apart. One quick and easy way to tell the quality of a piano is by reaching under and feeling the thickness of the inner and outer rims combined. Here, thicker is better. More material is better. Hard, hardwoods like rock maple are better. Now this inner rim, visible only underneath the piano, is the bed upon which the soundboard sits.

The soundboard is the piano's amplifier, if you will, and in world-class pianos, is made from Spruce trees grown at high altitudes. These trees grow slower and are much more dense. The next time you're in a piano store, check out the soundboards. The dark lines are winter growth and the light lines are summer growth. Closer together is better.

Did you know that? Does your salesperson?

The very best piano soundboards in the world will have a degree of crowning to them, thicker in the middle and thinner near the outside. Each manufacturer has their own special sauce in the thickness and variability of their soundboards, and while color and tone can be subjective, some soundboards are objectively better than others. Look for spruce-- Sitka spruce grown at high altitudes is best, and look for a crown. Because pianos that lose their crown become lifeless and dull very quickly. So, what helps them hold their crown? A nice, strong piano rim. See how this all ties together?

Now, there are some aspects of a world-class piano that are without a doubt better than others. German hammer felts are top of the line. You'll see them with names like Abel or Renner. Roslau is the gold-standard when it comes to piano strings. No question. Roslau strings are best. Actions with all wood parts are what you will find on all the greatest pianos in the world, though some manufacturers have taken to replacing much of the wood with plastic and composite materials. They rebrand these with fancy trademarked names and pitch it as a feature, but ultimately this is just a fancy name on a cheap part.

The best piano bridges are vertically laminated and capped, as all maple bridges have a tendency to crack. These are all unquestioned, and ignore anyone who tells you otherwise-- or worse-- doesn't know.

Remember, information is your friend. And knowledge is essential to finding the right piano at the right price.

Speaking of which, the piano plate. The big, cast-iron plate-- the thing that makes that piano so darn heavy-- is the backbone of the piano. It's what keeps the piano and those 40,000 pounds of string tension force from collapsing in on itself. Traditionally, the best piano plates are wet-sand cast in a foundry then left to cure for up to three years before they are ever introduced to a piano. These plates are super dense and naturally contribute to the color and tone of the instrument without moving at all. Cheaply produced plates are vacuum cast-- sometimes called V-pro-- in a fraction of the time. While this is a super quick and cheap production process, it compromises the quality of the part. V-pro plates have a different molecular structure and vibrate when played, which interferes with and compromises the harmonics of the instrument.

So, how do you find a piano with a rich and colorful tone that will last for generations and not fall apart after forty years? What questions should you ask when you walk into a piano store? How do you buy a world-class piano at the price of a mass-produced one?

Here's what to look for.

One- handcrafted pianos are best. No exceptions. Two- low tension scale design. Three- a one piece continuous rim. Four- all maple action parts, and no plastic! Five- German strings. Six- German hammers. Seven AAA or AAAA grade soundboards. Eight- vertically laminated and capped bridges. And nine- a wet sand cast plate.

These are the hallmarks of the finest pianos in the world. Believe it or not, they are available in your everyday piano store, and you CAN find them at the price you want, but only if you know what to look for. Remember, you want to choose the right piano, not get sold on one.

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