



Stradivarius Instrument Design



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Stradivari Life 1644 -18 Dec, 1737

Born in Cremona Italy in 1644 (Not much known about early life and inspirations)

- Andrea Amati (1505 - 1577) - Credited with inventing the modern violin
 - For centuries, Cremona is center of violin making
 - This was probably large impact on luthier career interest
- Niccolo Amati is the greatest violin maker of the time and decides to take Antonio Stradivari as an apprentice
- Stradivari worked in Amati's renowned family workshop for several decades experimenting and learning
- By the 1680's, Stradivari began building better violins and broke free from using Amati's violin form and create violins with clear tones
 - Built 1160 violins in his life



Stradivarius vs Armati

- Stradivarius violins are a lot higher and closer to tenors
 - Strad violins are often called “brighter” and “brilliant” because they are closer representative of female singing
 - Strads have much clearer tone on average
- Armati violins are much closer to baritone and bass and much more representative of a viola
 - Armati violins are more representative of male singing voices and tend to have richer tones

Preferences varies from person to person



Improvements/Differences

According to the “Cambridge Companion to the Violin” Stradivari’s most important contributions were:

- Thicker wood
- The biggest difference between a Stradivarius violin and the traditional Amati form is the straighter and stronger “C” bout.
- f-holes are longer and straighter
- Larger scroll

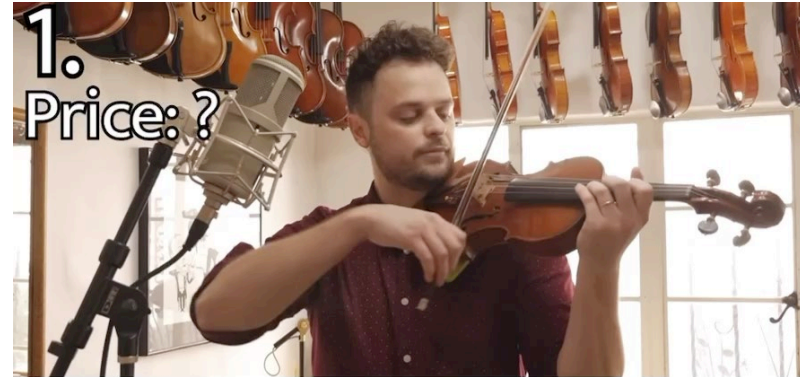
New unique varnish - these can affect the resonance tone and response to vibrato

New manufacturing techniques - These techniques are not fully known which is why there are so few perfectly made old violins



Design Characteristics

- Stradivari is known for his superior craftsmanship and wood choices
 - People that look at these violins can literally never find a flaw with any of them
 - Every violin is perfectly symmetrical, and has unparalleled craftsmanship
 - These violins have very clear and crisp tones
 - Can you tell which ones which?



Note: I Use The Same Bow With Every Violin.



Results

#1 - \$10,000 Di Mateo Violin

#2 - \$70 Amazon Violin

#3 - \$450 Seraphina Violin

#4 - \$10,000,000 Stradivari Violin

#5 - \$100,000 Galiano Violin

Why are these violins so special?

- These violins cannot be recreated
 - Stradivari had special treatments he would do on the wood that have been lost to history (like roman concrete)
 - The wood of the time grew through a mini iceage. This allowed Stradivari to be able to choose wood that had unbelievably homogeneous growth making the wood essentially flawless
 - A lifetime of experience learning building from some of the most renowned masters
 - etc

Violin - Messiah (1716)

- Most well preserved Stradivari Violin to exist and is in museum in Oxford
 - This violin was Stradivari personal violin that he never sold
 - After he died, every person that got ahold of it always cherished it and never let other people see or touch it
 - (VERY similar to Golem and the Ring of Power)
 - In Oxford under the condition no one is allowed to play it
 - Estimated to be worth \$20,000,000



Violin - Lady Blunt

Next best violin ever preserved with a deeper elegant tune

- Also considered to be perfect
- Similar story to the Messiah
- Most expensive violin to ever be sold \$15,900,000



MacDonald Stradivarius Viola

Most Valuable Instrument in the world

- This is because not only due to its rarity and great condition
 - there are only 10 remaining violas from Stradivarius
 - Made during Stradivarius golden age
- As you can hear the tone of this instrument is





Stradivarius Palantinos

Royal Spanish Stradivarius Quartet shows the intricate detailing and beauty that the instruments can physically be adorned with





Influence

Stradivarius has completely affected the way that instruments have been made. Through experimentation he changed the dimensions and processes of violins to completely change the tones of the most famous instrument in Europe.

Now, a lot of musical instrument makers try to follow Stradivarius designs which is why there are so many copies



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