Off Topic: The Beauty of Handcrafting a Violin

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Introduction

- I am going to be 60 ;-) 
- Private lessons violin making 
- Since 15 January I stayed in Poznań 
- Antonio Stradivari type violin...
Vocabulary
Main Steps of Violin Making

1. Begin make violin
   - Make the inside form
     - Make the neck
     - Make the bottom
     - Make the rib
     - Assemble bottom and rib
     - Add soundboard
     - Add neck
2. Varnishing
   - Finalize the Instrument
3. End
Make the Inner Form
Bodies for Sandpaper Files
Clamping Set
Make the Rib
Make the Rib
Make the Rib
Make the Rib
Make the Rib 5
Make the Rib
Make the Rib
Make the Rib
Make the Neck
Make the Neck
Make the Neck
Make Bottom
Make Bottom
Make Bottom
Make Bottom
Make Bottom
Make Bottom
Make Bottom
Make Bottom
Make Bottom
Make Bottom
Make Bottom
Make Soundboard
Make Soundboard
Make Soundboard
Make Soundboard
Tap-Tones
Tap-Tones
Tap-Tones
Tap-Tones

![Frequency Analysis Graph]

Cursor: 11 Hz (F-1) = -76 dB  Peak: 142 Hz (C#3) = -53.8 dB

Algorithm: Spectrum  Size: 4096
Function: Hanning window  Axis: Log frequency

Close  Replot  Grids
Make Soundboard
Make Soundboard
Make Bass Bar
Assembly Bottom and Rib
Assembly Belly and Soundbox
Assembly of Soundbox and Neck

This concerns “future” work

- Prepare a v-shaped groove and fit neck into it
- Fix the neck to the soundbox
- Finalize neck shaping
Varnishing

Types of Varnish

- Alcohol based varnish
- Oil based varnish
Effects of Varnishing

- Alcohol based varnish is hard and does not need special drying procedures.
- Oil based varnish is flexible, dries slowly and needs UV-light treatment, the final hardness is reached only after more than 1 year.
- Thickness of varnishing influences the resonance frequency of the plates and the timbre of the sound.
Finalize the Instrument

- Add soundpost
- Mount pegs
- Put bridge, button, tailpiece and strings
Thank You for Your Attention