

Wood resonance / FIR - SPRUCE

FIR/ SPRUCE :

Â The sound and its secrets, all makers are aware that the choice of tonewood is crucial if you want to get a satisfying sound, which is why the best luthiers focus especially on the acoustic performance of their musical instruments.

The tonewood is prized type of wood (the best is the spruce) used in the production of the soundboards of stringed instruments.

Â The fir resonance in particular, are still insuperable, for the production of quality tools, in particular for violin making.

Â The fir resonance is variously named according to the area of origin, "harmonious fir", "fir singing", "noseler fir", "fir male" or "fir fagherino."

Â To recognize it relies on the experience, which remains wealth of the few.

Â Macroscopically fir resonance presents under the bark lenticels similar to beech wood, also the needles of the plant are small and dark.

Â In cross section the resonance wood presents growth rings with introflexions (indentations) oriented towards the bone which usually are more marked in the basal part of the trunk.

Â By examining a section tangential often you notice streaks called "slumacature" produced by the silvery reflections of the medullary rays.

Â These characteristics, however, often are not sufficient to identify it.

Â According to many luthiers around the spruce is resonant, provided free of defects (resin pockets, reaction wood, knots, grain diverted, cracks in Houndstooth) and possesses a constant width of the rings with "grain" well-marked .

Â The amplitude of the rings should not be too tight otherwise involves the production of a sound "metallic".

Â The acoustic qualities of spruce were already appreciated by the makers of the 1500, not to alter the sound, did not use paint their own tools.

Â Only with Amati and Stradivari began to paint tools mainly for aesthetic reasons.

Â The sound produced by instruments made with wood Spruce is the best, because once it has matured channels resiniferi turn into many small "organ pipes".

Â The method to get the traditional tonewood includes removing the plants in winter with a waning moon. Once cut should be

Â left for a few days with the branches and arranged with the tip downwards to facilitate the release of "lymph".

Â The wood must be split with ax with a wide blade, so the grain follows the section gap and makes it less susceptible to attack by agents of alteration.

Â The trunk is reduced in quarters, then into eighths and then into wedges,

Â obtaining a triangular tablet.

Â You must use radial plates to prevent warping during aging.

Â To obtain the tablets, which may have a minimum width 15 cm up to 26-28 cm, you must use logs with diameters not less than 60 cm, so times of growth of the plant more than centenarians, as the central part of the heart-rich nodes products out of the car pruning of branches and other defects should be discarded.

Â The tablets are then cured naturally outdoors, in covered, protected from direct radiation and rain, not too much ventilation.

Â To allow adequate ventilation are spaced apart by strips of fir dry so as to avoid the formation of spots in the contact points.

Â The aging lasts at least 6 months, after which time the moisture content of wood (about 15%) reaches equilibrium with the ambient humidity of seasoning.

Â The luthiers for their instruments use only woods that have a seasoning that varies from 2 to 10 years and more.