Today, an artisan has to be curious. But not only...

www.violino.fr
Les tailles de violons

de
L’Orchestre des XXIV Violons du Roy
(1577 - 1761)

I) A beautiful story... Sad, and newly beautiful
This royal Orchestra only play for the King and for the royal court’s official ceremonies.

From his creation in 1577, during the reign of Charles IX...

...until his dissolution in 1761.

Also called “La Grande Bande” or les “violons ordinaires de la chambre du Roy”

I don’t try to translate but This royal Orchestra only play for the King and for the royal court’s official ceremonies.

Or:

“Les Violons Ordinaires de la Chambre du Roy”
This one of the first example of "official" orchestra in the world.

Voltaire (Louis XIV's century):

“The 24 violins was all the music from France »
The reason why this orchestra became so successful.

This orchestra is the one which organizes strings, creating five parts for instruments with bows.

- les haute-contres
- les tailles
- les quintes de violon.

L’Orchestre des XXIV Violons du Roy

Three middle parts played by:

- les haute-contres
- les tailles
- les quintes de violon.

But the reason because this orchestra was so famous and special.

the music was wrote for five different voices.

So the middle parts were:

- the haut de contre
- the tailles
- the quintes
The success of this orchestra Is also the reason of its end.

about 1720: the European orchestra's strings only keep two middle parts represented by second violins and violas.

It is common:
in Italia,
in Germany,
in England,
then, in France...

became the reason of his death in 1761...
because of it was so “tipicaly frenchy” with his 3 strange violas, this orchestra lost completely sa raison d’exister as soon as the compositeurs wrote their music in the italian style: with four violin family parts.
And the **hautes-contre**, the **tailles** et the **quintes de violon**,

became rapidly “has been”... then forgotten, in spite of their royal origins.
For a long time,
The life of these tailles de violons remained in background, as if nobody made these instruments and during Two century, the history of these instrument was forgotten as if they were never existed.
And, to play French music of this era, we use violins and violas.

The «three middle parts» are not reinforced by the tone’s specificity of these tailles de violons anymore.

And during these times the French baroque music with these 3 middle parts was played with violins and the viola.

But, in this way, these 3 middle voices was not clear because the sound of the instruments was too similar.

So often it was necessary to change a little the “partition”.

The «three middle parts» are not reinforced by the tone’s specificity of these tailles de violons anymore.
II) 250 years later:
In search of a tone’s restoration.

Les tailles de violons de
L’Orchestre des XXIV Violons du Roy
Patrick Cohen-Akénine, conductor of the Folies Françoises

“To come back to the sound of the old French orchestra comprising five violins parts ...”
This will required the “recreation” of these tailles de violons which disappeared.

Hervé Burckel de Tell, Director of the Centre National de musique baroque de Versailles

Patrick Cohen-Akenine, Director and First violin of the Orchestre des Folies Françaises

THIS strong artistics objectif required another “defit” the recreation of these tailles de violon with their own specific tone.

So in 2007 M. Herve Burckel de Tell, director of the baroques music institut of versailles
ordered from the violin makers

Antoine Laulhère & Giovanna Chitto’

The construction of the 12 tailles de violons disappeared and, in a second time, the 6 dessus de violon that means to re-invent these instruments to re-create this missing orchestra with its own specific sonority ....
ITALIA
violino
1,5 cm minus
dessus de violon

FRANCE
ITALIA

1.5 cm minus

FRANCE

10 cm more
ITALIA

1 viola

3 Tailles de violon

FRANCE

1,5 cm minus

3 Tailles de violon

Basse de violon

10 cm more
To understand which model to use

This 24 Violins Orchestra along two centuries of evolution of the violin

We need to imagine the evolution of the tailles de violons

1577
Andrea Amati (violins origin)

1650
Nicolas Amati

1761
Guarneri

1650
Stradivari

Les XXIV Violons du Roy

So we know very well the evolution of violins in Italy...

we've got a lot of instrument testimonies
As well as the tailles were evolving too?

In France we lost all the instrumental testimonies
during all this time?

1708 : Lully
(our date target)

And who made these instruments?

Les XXIV Violons du Roy

1577

1650

1761

Andrea Amati
(violin and tailles origin)
Looking for the sound of this Royal Orchestra.

—a “specific” sound: effective strong and admired throughout Europe...

to re-create this orchestra we worked in 3 ways:

1- **Historical approach** (Mersenne’s 1636 treatise, a few instruments and painting)

2- **Artistic approach** (Baroque musicians have an interpretation and also a complexive sound in their mind...)

3- to Rediscover and manage ancient artisans’ technics and culture (our quest since 20 years...)
Sizes and measures of these tailles are described by old texts.

Firstly it is helpful to see that these instruments are not so strange: They are violins. Not and the usual size not toned necessary in the same way that we can imagine but their form, their construction is the same than violins.

Only, the sound and the tone, and the ergonomy change.

Some rare descriptions of these instruments exist on ancient traité:
In particularly Marin Mersene a Jesuite moine give us some idea about the size of these instruments (I can't explain anything in English about that), and about their toning accord.
Mersene write clearly that these tailles are all accorded in the same tune.
Looking after their parts on the musics “C, G, D, A” had been choose by the musicology. And I think it make sens because in France these instruments are “all together” the ancetre of the viola.
These instrument tuned in the same note, was very interesting for us. Because necessary the sound and the caractère of these 3 instrument have to be various only.
A decisive moment

We found in 2006, an “unusual” violin built in Paris around 1700.

This anonymous violin generously unveiled a lot of characteristics that we had imagined when we were designing the hautes - contre.

The drawing of our three tailles models were based on this instrument.
Looking for the sound of the Royal Orchestra.

—a “specific” sound and admired throughout Europe...

to re-create this orchestra we worked in 3 ways:

—to be able to approach such a sound we needed a real complicity with the first musicians, with Patrick Cohen Akenine and with Jean Duron and all the CMBV.

— it was necessary a subjective and an artistic approach: they imagine the sound caracter of each taille. In the same way than theatre registers:

—and they helped us to “see” the sound carbohydrates of these instruments showing us their role in this French music harmony.

1- Historical approach (Mersenne’s 1636 traity, a few instruments and painting)

2- Artistic approach (Baroque musicians have an interpretation and also a complexive sound in their mind...)

3- to rediscover and manage ancient artisans’ technics and culture (our quest since 20 years...)
It’s an artistic approach and these choices are subjective.

(Patrick Cohen Akénine and Jean Duron helped us to “see” the sound characters of these instruments showing us their role in this French music harmony.)
Looking for the tone of this Royal Orchestra.

Comedy:

The good

The bad

The ugly

actor carateres
Looking for the tone of this Royal Orchestra.

Music:

the harmony on the score

*Haute-contre*

*Taille*

*Quinte*

sound caracteres of the instruments
A warm collaboration between Makers-Musicians-Musicologists

- A historical proposition
- An artistical point of view
A warm collaboration between Makers-Musicians-Musicologists

- In the chateau de Versailles,
- with all its history... (a dream)
Looking for the sound of this Royal Orchestra.

—a “specific” sound: effective strong and admired throughout Europe...

—to re-create this orchestra we worked in 3 ways:

1- Historical approach (Mersenne’s 1636 treatise, a few instruments and painting)

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3- to rediscover and manage ancient artisans’ technics and culture (our quest since 20 years...)
A tenacious work to adapt these gestures and these savoir-faire to our job, led us to carry out this forgotten varnish process.

Our most original contribution to this reconstitution project was the use our rediscovered varnish process for these tailles de violon.
Gestures and varnishes

an ancient varnishing process

There is a strong relation between sound and texture of the materials that we use.

In our quest for a “lost ancient sound”, we have to pay attention to wood texture.

Finally the characteristic of the wood depends on basic techniques of varnishing like wood treatments and varnishing processes.

Our process of varnishing

“fresco style”
Steps of a varnish drying applied as “fresco style”

1 - the ground layer catches the humidity

2 - the ground layer reacts in the presence of water

3 - the wood base gets mineralized after 1 year

Technique of the antique fresco adapted to our varnish process.

A process developed and used since 1995 by Antoine Laulhère & Giovanna Chitto’ - Luthiers -
Our quest lasted 20 years. For us, it was a long way based on a patient confrontation between «two worlds»:
<table>
<thead>
<tr>
<th>Science</th>
<th>Artisanship</th>
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<tr>
<td>“surprising ingredients”</td>
<td>traditional practices and knowledges that we</td>
</tr>
<tr>
<td>detected by analysis of old</td>
<td>collected from craftsmen and workers.</td>
</tr>
<tr>
<td>varnishes. (C. Barlow nature</td>
<td></td>
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<tr>
<td>1989 ...)</td>
<td></td>
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</tbody>
</table>
by accrossing these acknowleges and informations we adapted these technics for our violins.

by «cooking» varnish, we are approprieting ourselves these informations from Science and also from popular forgotten cultures. The 17th c. is the apogee of the violin but also of an artisanship having started in Antiquity and fading away with the Industrial Revolution.

Empirism + scientific informations, help us to ridiscove this artisan’s culture gave us a new process of varnishing
An interpretation of the existence of minéraux éléments on the wood of violins until the 18th Century:

Gestures and varnishes an ancient varnishing process

Our process of varnishing “fresco style”

the Davia cement performance with this varnish open new questions and perspectives
Laboratoire de Chimie Organique, Bioorganique et Macromoléculaire (COBM)- Prof C. Delaite

Conclusions des analyses d’un vernis posé «en affresco» sur un apprêt minéral (extrait)

La nature de la première couche de vernis joue bel et bien un rôle sur les propriétés de ce dernier. L’usage de composé Davia dans cette première couche permet, en effet, d'apporter un caractère hydrophobe à la surface ainsi qu'une meilleure imperméabilisation ou encore une plus grande résistance à la chaleur. Pour ce qui est de la minéralisation du bois ou la création de liens entre l'apprêt minéral et le vernis, il serait utile de procéder à d'autres analyses comme l'usage d'un microscope électronique à balayage ou encore d'effectuer un suivi des échantillons au cours du temps...

La présence de ciment Davia modifie donc bien les propriétés du vernis, ceci a pu être démontré par les différentes analyses. La structure de surface (observée au microscope) est bien différente et semble plus épaisse, et les analyses de mouillabilité montrent un caractère hydrophobe bien plus prononcé. Cette observation est également confirmée par la fiche technique, qui précise qu'un ciment Davia sec ne contient aucune eau d'hydratation et que son durcissement est possible en milieu aqueux, sans absorption d'eau (le matériau est donc bien hydrophobe).
Steps of a paint or varnish drying applied as “fresco style”

1. the ground layer catches the humidity
2. the ground layer reacts in the presence of water
3. the wood base gets mineralized after 1 year

with minéraux and Davia...

Technique of the antique fresco will offer with davia a new waterpoof and breathable paint.

A process developed and used since 1995 by Antoine Laulhère & Giovanna Chitto’ - Luthiers -
Project and perspectives (help! ..):

- Regarding our varnish: (an artisan’s secret zone)
  to see better the link between the ancien wood mineral traitment and the
  antique artificials stones process

- Looking for a new modern painting process: (a shared collaboration)
  to find some partners in order to realise a modern painting formulae that
  link the varnishing in affresco process an the Davia cement.

A new «gortex» varnish or painting is near to be borned?
...to continue ...
THANK YOU...
Empiricism is not such an old think...