[00:00:02] Speaker A: And it's good that I reminded, so I won't start again. But I will turn this over to Arthur with a great deal of pleasure and with a great deal of excitement.

So, Arthur, you have the microphone.

[00:00:22] Speaker B: Thank you very much, Andrew. Thank you very much, Aliador.

It is an honor to be able to speak about something that has been accompanied me my whole working life. Actually, it started while I was at school at the age of 14.

This is the first time that I am speaking on a zoom lecture, or whatever you call it. And it's a weird sensation because I have got no feedback. I have often given little lectures about instrument building, about. As Ali Ad said, that was an introduction to the concerts where I talked about the instruments which were being played, which I had built.

And there you could feel the people. You could notice. Are they interested or is it tiring? What I'm seeing? And I'm just talking to this funny screen. It's actually myself looking at me.

So, yes, I'll have to get used to that. I have prepared photos so that I can show you, because I think it's easier than to explain everything, because the violin is actually a very complex instrument.

I would first like to talk a bit about myself because.

But Aliador did. So I can go through some of the things very quickly. This is a photo of Franz Tomastick in his workshop.

You can see there's a cello in the background on his bench.

Do you see my cursor?

[00:02:18] Speaker A: I think.

[00:02:20] Speaker B: Yeah. You can't.

Okay.

[00:02:24] Speaker A: Could you.

[00:02:24] Speaker B: There's some lying flat, a viola, quite a large one. And in his hands, he's got the ribbing of an instrument which he's building.

[00:02:35] Speaker A: Arthur, sorry for interrupting. Could you share again your screen so we can be sure that everybody is seeing it?

[00:02:43] Speaker B: Oh, I didn't. I just shut the phone. I'm looking at it myself. Thank you.

[00:02:50] Speaker A: No problem.

[00:02:52] Speaker B: Oh, what's happened now?

Oh, sorry.

[00:03:00] Speaker A: Could you minimize the zoom, the zoom image?

[00:03:07] Speaker B: This is where things start to get difficult. I'm sorry, I. I put on the wrong thing.

[00:03:16] Speaker C: You might have them.

Stop sharing. Go back to sharing.

Because he's. He's grabbed.

[00:03:23] Speaker B: Ah. Stop it. Okay. Now I can reopen it enough to get my photos, but they're not there now.

[00:03:32] Speaker C: You have to share again.

You stopped here.

[00:03:40] Speaker B: There they are.

So do you have it now?

[00:03:45] Speaker A: Yes.

Good.

[00:03:46] Speaker B: So. Thank you.

So this is, as I said, the photo of Franz Tomastick. Maybe one of the very important things to see is his eyes, how they're looking. Very concentrated, very intensive.

Also how he's sitting and he looks as though he's eager to do something.

That was very much his personality.

This is a normal cello. This is the ribbing. Sorry, do you see my cursor?

[00:04:24] Speaker A: Yes, we do see it.

[00:04:26] Speaker B: Okay, so. So this is the ribbing of an instrument he's building. And in the background there's a viola lying on the workbench of this new type.

So let's see if I can get to on. Yes.

I was born, as Aliador said, in Scotland. This is Newton D.

And that's me. And I started to play the cello when I was 7.

This is my first workshop in Hamburg. I was now in South Germany. My daughter's on my lap and there's a cello.

This was the workshop that I had then later in Constance, at the Lake of Constance.

This is a concert I had in my large workshop in Heiligenberg, where I was 25 years. And where a lot of.

I did a lot of culture and a lot of the instruments were built.

This young lady, I think she's 14 at the age of 16, something like that. She's also playing a cello which I had built.

And her father was a very good friend of mine.

This was now 10 years ago when I moved into Algoy. Algoy is South Germany, south of Stuttgart or south of Ulm. And here you can see new instruments which I had demonstrated to show somebody.

This is a picture on the workbench.

And this is a cello. I just finished a traditional cello.

This was after a long time.

I think I have to say something here.

It was so that when the Goetianum was being rebuilt in the 90s, I asked if they would put. Build in a new orle.

Because the Orgel, which was in the Goetianum, was a romantic traditional build.

And among our anthroposophical friends, we've got an organ maker who could have made something where music could be played by which is being composed and by people in our circles.

And that was for me a big disappointment. When I was. At that time. Sorry. At that time I was in the society of instrument builders in the.

The.

What's the. Not the chair. What's the.

The. The. The leading group. What they called.

Of a society or. No answer.

Yeah, exactly. Forstand in German.

And I was friends with an organ maker who would have sold this instrument from the Gurtiano.

One would have had to invite somebody to.

To play it before because it was. It was still standing. And then they decided to take it out and rebuild it in the new hall or the renewed hall.

And I was very sad because I thought this was a big shame that the instrument couldn't be used for that which is being composed by Heine Roland as a example.

Another wish of mine at that time was that the Menschites representant the. The sculpture which Steiner made would be put onto the stage.

But seemingly the p. And I was talking with Virginia Caesar at the time and other people. I was invited into the group for the organization.

And they seemingly wanted to make more a conference hall than the center of the anthroposophical as I feel it, society.

So there were no contracts for building new instruments. And then 2015, some 15 years later, a man came to me and said he would like one of these cellos.

So I built it. And this is a picture of the instrument varnished.

And this is the man who gave the contract. And this was in the farmhouse I was living in.

Here I'm working on the next cello, also in that same room, which was the stube, as one says in Germany.

And here is fitting in the neck.

And the woman who ordered this is a gardener. And she wanted a flower on as a decoration for the head. So I carved her this flower.

This is gluing wood together. And to warm it, we put on a bit of. It's just a nice photo.

Put some methylated spirits, light it, and then it heats the wood without burning it. That's a very short and quick process.

Here you can see the ribbing. It's built around a mold. This inner part is the mold, the blocks, the top block and the bottom block. The blocks hold the corners, and the bottom and the top are for the neck and the lower part. This is the process of carving the arching out of two pieces of wood.

You must imagine it like a piece of cake that you cut in half and then you open it.

And that's why it has this sort of shaped like a roof.

And that's where we carve it. There's the top and the bottom of this cello I'm making for the woman the gardener carved.

Here's the next. Oh, no, it's the next cello. Here's the next step. You can see there's a base bar put into the back.

I will talk a bit more about that later. And you have here the molding, as I told you, and the blocks. And these are the cramps to glue the back onto the ribs, which we saw before.

Is this going too fast?

Can you follow?

[00:12:05] Speaker C: It's fine.

[00:12:07] Speaker A: It's fine. I can.

[00:12:08] Speaker B: Okay, here we've take. Here I've Taken the mold out and starting to tidy up the inside. There's a. A ribbing to.

To make it stronger the gluing part. And this will come on the top as well. And the blocks are being then cut into the form of the instrument.

I'll carry on. Here's the ribbing glued on. And this is the. What we call the saddle which takes the tailpiece. And then you've got this bridge approximately here and the neck goes out there. When we're further with the instrument this is the table or the top.

And these.

You can't call them f holes. You've got to. Tomastic called them communicating openings.

I don't know if it's the right way to translate it where he worked out or were. Yeah, he worked out that they should be round. But having this form of an instrument you can't make them round because we need to be able to play with a bow.

So that's why they got this shape.

The base bar. I'll show you later again because he did a lot of experiments. And I've got a few different pictures where one can see it still better.

This is as I said the top block.

And that's the cut out for putting in the neck.

And this is the ribbon that decorating the. The.

This. The sides of the instrument.

Here you can see the instrument finished in the stube.

And here's a close up so you can see the decoration better.

I find it an incredibly nice artistic way of changing the. From the traditional. In the time of.

You can steal. What is that in English? You can steal. It's the beginning of the century when Thomastic worked and this were the first tones. This is the workshop I'm now working in.

But this is 2020 so it's five years ago when I did the try to play the instrument. What does it sound like? Do I have to do any alterations? Because if it's not varnished I can then work on the wood on the outside to make it a tiny bit thinner or change things.

After that I built a violin.

What I haven't said is it took me from 1980 where I started building instruments in. In commission for the.

We'll see the musicians afterwards who've been playing my instruments.

This was 1920 was the first time I built an instrument.

According to the patents of Thomastic which he had patented. Patented in 1910.

The reason being that two years earlier I was asked to hold a lecture in the Guetianum which was probably my third lecture or fourth. I don't know to these instruments And I did a lot of research and was able to get into the library of Vienna via computer in into the archive of the newspapers.

So the study I did has got a lot of backup from newspapers from the time. It was actually very easy to find because putting Thomastic in as a search word, there was only one woman who had the name.

So all the newspapers from about 1860 till 1950 that it scanned, there were only two people. One was Franz Domastic, where I had 150 or 170 hits. And then as I said, this lady with two hits. So then I first understood what it meant, what Thomastic had as an idea, because I was asked to build the instruments according to Weidler. But Weidler, who was a pupil of Thomastics, didn't really want to or could not pass on what he had learned from his master or hadn't learned from his master.

I think he was the better hand and was doing, helping CR with the craft work in the firm which. Where he was for 13 years.

So this is a copy of the violin which belongs to the Goetianum. It's the number 44 of Thomastic and is of maple. Maple. Ah, yes. This is what I was wanting to say. Here you can see the base bar of the top and the base path, the bottom and the ribbing. The sides aren't there, but the height of the sides are demonstrated by these pillars.

So you can see there's a lot of forming on the inside, which is very mystical for me still.

But it has to do with Thomastic's approach. And I think he took a very different approach. And that's why the instruments sound different, because the approach of what I experience is the two surfaces, the back and the top. The top has the holes, the back supports the rest of the instrument.

They have.

They're very, very thin in comparison to a traditional instrument.

And the strength comes through all this stuff, all these bars on the inside.

Of course, these pillars, they go when the ribbing is there. Here's another view of that from the side. So you can see this goes down and up again and the bass bar goes up and down again.

This is a finished violin.

It was finished in 24. It says here. That's right.

And it is made of cherry wood.

So that's why it's got a very different wood.

Which now of course would give option to say why the instruments are built of different woods.

Oh, you've got seven questions already.

Thomastic told Kremling. Kremling was his friend and employee who later made the. The Resin, the colifornium for the bows for the instruments in the firm.

And he told him that the quartet should be made of four different woods.

And these should be representing the early periods of the earth.

So the first violin is maple. The second violin is cherry.

The viola is beech.

I get the muddled birch and beech Birke. And the cello is ash.

And then this is the maple violin, the one we saw with the. With the pillars in it.

And this is the cherry violin, varnished.

The four instruments.

Sorry, I jumped one too far.

These four instruments which I built to accordance of the patents of Thomastic, are being now played by the Planetum Quartet. They call themselves the Planetary Quartet and had its.

It's.

Let's call it birth. When they were played the first time here in. Not far away in Wangen, in the Christian community, Easter.

And that was a special event for me because it was.

Yes, when four instruments are being played, that is something very special.

And this was the first time built really in accordance with the tailpiece and these holes and the rest.

So. And this is what Aliador was telling about. This was a concert in Kronborg in Romania.

And this is the cellist and the two eurythmists. And he held a lecture about his work. And I held an introduction for the concert and for the demonstration.

And those are the artists.

Ah, here he is. There's Aliador with his blackboard where he wrote everything down. And that's me talking about the instruments here.

Unfortunately difficult to see. And this is the countryside I'm living in. I'm living in a little village. But this is just. And this is just an impression of the Lake of Constance. It's Lindau. I just wanted to share that with you because that's.

So you have a picture where I am active.

So Tomastick was a very inventive man.

In 1907 he patented a sunbed where one could adjust it so that the rays would in for a sanatorium where the rays would come in and adjust it for different things. I haven't got into really studying this. It's just an interesting aspect. You must think he was.

He was born 83, so he was about 20, 24.

Now this is the patent from 1910 of his instrument, where you can see the buildup of it.

And this length here corresponds to this length. He's gone into a. And this is what I was telling about the.

The sound hole being round was his idea, but he had to stretch it.

In his first patent the sound post was fixed.

Oh, sorry. This there isn't a picture later and a year later he made a hole in the top of the instrument and the. The bridge would rest then on one side on the back and on the other side on the top.

I hope I've got a picture for you.

Another invention of his, and this is a very, very important invention for the music altogether of our time.

The strings would be wound like in a spiral.

And if you had a. For instance, a gut core for the strings, the gut would then sort of shrink and then the.

To get the deeper sounds you needed this winding.

If it was a very deep string of a heavy metal, like silver, and then it would rattle because it got loose. And Tomasic had the ingenious idea to put them at an angle. So he doesn't go with one, he goes with six chords, round up the string and it doesn't matter if it's round or flat.

He called it flacon.

I don't know what the English expression is.

And then if the. If the center. The string itself would shrink, then they would lay down and it wouldn't rattle. That was important. It is changed. Another very interesting ingenious idea of his which is mentioned in the lecture, that it's actually not a lecture.

Thomastic gave a lecture which we don't have any notes of in 1920 in the Gtianum.

And there afterwards Rudolf Steiner gave a short talk afterwards talking about it.

And one of the things that. To Mastic said it would be very interesting to make a concert hall where you don't see the instruments because he found it a bit disturbing that the double bass player would sweat so much.

And then also to have a parabolic mirror so that the sound gets spread better.

Now this has been misunderstood by a few authors. They've called it an elliptical, but it is a parabolic, of course, because this would be then the center of the center, what you call it the. The focus.

And then if you go up, it comes directly down. If it goes. It goes direct. Oh, sorry.

If it goes up here, it goes directly down and if it goes here, it goes directly down and goes here so that the sound would be carried out better.

Steiner said something very interesting to this idea. He said it's a very good idea, but one would have to think about the. Where one does it and that the. The. The.

Under the surface of the earth there are very different effects which would also have to be taken into account.

And it is a bit like he said about the seven pillars in the first Goatianum.

The. They were not intellectually thought out. They were Artistically put there. And I think this is a point where we're coming to understanding that not everything can be explained technically.

This is a further patent of a very complicated base. But I've got a photo of it later.

And then another very ingenious idea.

If somebody plays the piano or other instruments, instead of having one line, which is our C between the treble and the bass, here we've got treble and bass. His idea was to put in two, and then you could have always the same sign going up the octave. I wouldn't like to explain this much more. The musicians will understand. Understand it.

So these are the kind of ideas Thomastic had.

There was a lecture.

No, sorry. There was an article in the strat 1984, where there was a photo of a Thomastic instrument. And the man who wrote this article was a Mr. Rokos, who heard him in Prague giving a lecture and said he had the impression he was such a clever man that he could have made a living of making socks.

And that's why I pointed out his eyes. And he was somebody who really took things very importantly.

Now, of course, the question very difficult to answer is what has he to do with the Anthroposophy?

And that's also a point that has been misunderstood and romanticized and is.

Yeah, there are very many different ideas. And he was not very happy in the Vienna Society. He wasn't a member of the society.

He said he didn't like their chattering in German.

But what he seemingly did, because he knew about it, was he gave lectures and study groups on the threefold impulse of Steiners.

So he must have known Steiner.

And we know that he became a member first in 1924.

So there's no contradiction in this. He seemingly wanted to be more on the social side, which he also brought into his firm. There is one patent where he's not the man whose name is written on it. All the people who worked, all the seven at the time in his workshop are.

It's in their name of all seven.

That's the one of the strings, which is in 1914. So I'm jumping about, I'm sorry, because in 1910 he started the instruments in 13. He displayed them in Cologne in Germany at a big fair.

And he had a very professional quartet who were playing the instruments. And then, of course, the Second World, the First World War came up where he was not able to work and he was, I think you see, an officer of reserve.

He didn't go to war. He was, I don't know, the. The Proper in. In German, it's a reserve.

And therefore there was a big break in his activities.

And then in the twenties there was this lecture I talked about.

And Steiner said to him he wishes him all the best for his work. This is only the few things we know. And he's going to have big difficulties to realize his impulse. But we shouldn't discuss about the instruments. We should just carry on working. Because it's very important that it doesn't.

The instruments don't land up in a decade in decadence.

So let's move on the musicians. This is of course a very important part of the all things. Because the instruments are there to sound. They're not there to be hung up. Like here in this.

This cupboard at the background. There are about 13 instruments of him. He himself is sitting there playing a cello. This was a picture in an illustrated magazine of 1913.

Where one can also learn a bit more about his work.

And I'm not sure who these people are.

In 1956, Norbert Fisser, who got to know Weidler.

Who had moved to Nuremberg by then.

Started to.

Was interested in these new instruments. That was before he had his koroi impulse.

And that's his wife. And you can see on the F holes or on the sound holes that they've got this

form like. Or more like the ones that I built.

Carl Weidler moved to Nuremberg because it was very difficult in the German Reich to export the products.

And in America, for instance, in the Museum of Jewish Heritage. I don't know exactly the name.

There are sachets of the strings that were made in Vienna or made in Nuremberg. On the one it says Thomastic Vienna.

And on the other one it says Thomastic produced in Nuremberg by Weidler.

So he had a. Had a franchise sort of situation where he was making strings. And they were selling mainly to South America and the Western world.

Viler then we. I'm doing a jump up into the 40s. This was the first time I had a finished quartet. Unfortunately, you've got no better photos. This is Wim Fier and Christian Gina. I can't remember who plays the viola. And Reinhold Bull.

They played a quartet in 84 which I built. That was the first quartet that I had built of these instruments. And they went on tour around Germany.

Here we've got Reinhold Buhl and Frau Alt Eppinger. He's playing an unvarnished viola that I had to demonstrate.

And this was a music conference in the Russpe near Frankfurt.

Goldstein. Michael Goldstein, a Russian violinist who also got to know these instruments and was very interested and played them a lot.

Is now the third man on this photo.

In the Second World War he would play at the front Bach and the Germans would shout Russian, Russian playback.

He played then for the soldiers.

Now I'm doing a jump to my cultural work.

This was in 95.

There was very clear that we've got an impasse of new instruments coming more or less out of the anthroposophical background.

And the liar Thomastic was actually asked to build one, but he refused.

He said he hasn't the time to do it.

Then we've got the organ of the organ builder. This is a positive, you call it in Germany. I don't know if you can translate it like that. It's just a portable, a little oracle. And the special thing for Johan Zonleitner, the organ player, is that it's got a quarter tone.

Fingerboard. No, what you call it. Yeah, fingerboard. So he can play finger tones. And Heiner

Roland, who composes music with quarter tone, says it does. It's not his idea to make micro intervals, but it's coming back to. To the natural intervals. And there. It would be also very difficult not to go into this subject. But he. Sonleitner said Bartok was in very genius taking the. The Hungarian music and making it fit into the 12 tones. And if one has a near for that, one notices that Bartok managed this.

And it has to do with the way the intervals are used. Like in the Alphon, for instance, is an instrument which has only natural intervals.

Sorry, this is getting technical.

And now we're coming to a thing which Thomastic never achieved in his life and that was he wanted to make an orchestra. And the orchestra were made of the seven different woods of the planets.

And this was more or less 1995, the birth of this ensemble which is made a little violin, a piccolo violin. That's this one here. You can't see it, unfortunately, it is a fifth higher than a normal violin. Oh, now the questions are coming.

This is the first violin, the second violin, elm and birch. And this is the viola, which is ash. And this is the tenor cello, which is a fifth higher than the cello is oak.

And then the maple cello. And this is a double base of Hornbeam, the hardest European wood we know.

And the photo was before they were.

This was in a. In a practice here.

These instruments I exhibited, as you can see, this is at a fair in Paris, the Musicora.

And I had the woods in the background and the instruments hanging on the woods and these two musicians are playing on the fair.

And then they had the idea this is how they'd like to present themselves. So you've got the seven instruments. And maybe I should make a little break because we've got nine questions. Would you like to pass them on?

[00:42:30] Speaker A: Of course. One of the question is, how does that. The tailpiece work in the first violin you showed.

[00:42:40] Speaker B: Okay.

Can I keep that for the next part?

[00:42:47] Speaker A: Of course, of course.

[00:42:49] Speaker B: Because I have. I have four different versions.

[00:42:55] Speaker A: There was another.

Not a question, but more of an affirmation that Johan Zonleitner lives in Zurich, in Switzerland.

[00:43:04] Speaker B: Yeah, that's right.

And maybe to the organs. It's interested to know the Christian community in Basel and Zurich and Bern. They have these instruments like I've got with this trio. I had musicians compose for these three instruments because I wanted them to.

That these three different workshops would be presented in this festival, which I arranged in 95 as an ensemble.

And it was a. We called it the Heiligenberger Musikbocher Neue Klangaf Neuen Instrumenten. The Heiligenberg was where I was working Music Week.

New instrument, new sounds on new instruments. And the background idea was an instrument needs a musician to play it, otherwise it's no use. And then musician needs a composition he can compose himself. Of course, he can improvise.

And it has to have a new approach to it, because the instrument, otherwise, it's only for.

And that was the.

If somebody want to partake on this.

This Music Week, they had to fulfill these different things. And we had quite a lot of interesting things happening.

[00:44:39] Speaker A: I'll jump in on this. I'm sorry, and ask, I think, a question that maybe is on the minds of everybody that I experienced, but I want you to maybe explain it better.

What differentiates these instruments from regular violins or cellos? What would be the signature or the unique. Uniqueness of their sound?

I could.

I heard them, but I wanted you to have the. The first opportunity, obviously.

[00:45:14] Speaker B: Oh, give your. Give your experience. That makes it more colorful.

[00:45:21] Speaker A: Okay. And I'll give you a chance of a break to maybe drink some water.

[00:45:25] Speaker B: No, no, no. I'm fine, thanks.

[00:45:29] Speaker A: At first, when I had the opportunity to hear them, I heard. I think it was a cello, an old Italian cello, the one from the 1800s, and then your cello.

And the. The main difference that hit me at first, and I'm not a musician, I'm just a. Just an engineer.

So very technical and very blunt, was the fact that you could feel it, feeling your.

Let's say, ears or your sound receptors.

You didn't feel it as something sharp saying, oh, that's the sound. No, you felt like it was hugging, let's say, your inner spirit. That was, for me, the. The experience.

And another fact which I felt in. In during the tour, especially when we did the experiment with our eyes closed and our backs towards the instruments, was the warmth of the sound, which was quite, quite different.

There was a special warming feeling or sensation or perception, if I may say so, of the new instruments. You could directly feel that it was something different. And it was not only my experience, but in that workshop, I think there were 20 of us. And in all the tests, everybody said the same. The same thing.

This is what comes to mind for.

[00:47:14] Speaker B: For myself, thank you very much.

That is.

That is very, very special. Yes, you see, I did say that Steiner said to domestic, you'll have a difficult time.

And I think I dropped the sentence. It hasn't changed till today.

And so we had the break after Girtianum had been rebuilt for my work.

And then there are others working, of course, on new music from another side, but I can't go into that. That's not our subject.

But it's all very, very. It's a very, very small seed in our musical culture.

You see, the sad thing about this Septet Ensemble is after 29 years, the guys have just become old and said, we can't anymore.

And there's nobody to take it. To take it over and play the instruments further.

So it's not developing into. But that's not answering the question. I just like to put this out.

Another thing that is very difficult in our culture is that we have a radio.

The mothers don't sing anymore.

I don't want. On the whole. Of course. Of course, mothers sing in certain circles, but the radio has taken over in the house.

So that's another thing. And the other thing which is important is we use the technique to transmit our voice.

And.

Okay, if we didn't, you wouldn't hear me. I can't. Can't talk. So that you can. Bucharest and New York or wherever, that doesn't work. But so it's got two sides, of course.

And when we're talking about musical instruments, these things, what you were talking about, Aliador, the warmth, the how it.

How makes a cloud around you.

These are things that can't be transmitted electronically.

And there was a time when I was trying to find out what is really the difference of listening to music directly or through the loudspeaker.

And through the loudspeaker. It works as long as it's classical. On the whole, I'm generalizing, of course, because you remember hearing it from a record or the radio, whatever it is you remind it, and your soul. Soul starts to resonate to what you know and understand.

People who do a lot of modern music, they can't.

They can't hear it from. Unless they're analyzing something, because it doesn't take you in the same way. But if you listen to musicians playing, and these seven musicians have been playing mostly modern music, with very few exceptions, parcel a tiny little bit.

And if you listen to them live, then this other. The atmosphere comes and it carries you and it makes it easier.

Then I was in an alternative performance of the mystery drama in Uberlingen, near. At the Lake of Constance, and this guy was playing on that cello.

And I said to myself, it doesn't sound right. Something's wrong.

Yeah.

And so in the break, I saw him and I said, bernhard, tell me please, was the instrument amplified?

He said, yes. How do you know? I said, well, it didn't sound right for me.

And he said, yes, it was very important because the person wanted it to be very. Played very quietly.

And like that, one could hear it as it had been amplified. So one could hear it, but he was playing with quiet, with a quiet expression.

And I would not like to say that, or I would just like to say I have.

Through my work as an instrument builder and listening to instruments and playing instruments and judging instruments, I can analyze it. I think what came through the loudspeaker wasn't the same as when I would have heard it live. And that was it. It was more a qualitative difference. I heard, because there was one lady who was in the audience as well, and she said, she freezes when she hears music from the loudspeaker. And I said, did you hear that it was amplified? No, that's impossible.

So these are things that we've got to do a lot of work. What does it mean to produce sound, to project sound?

And to. To.

Also to. To. To receive it, or to. To.

It's. That was another thing in. Oh yes, I forgot that in the music week in the festival, you need an audience.

Why should they play for themselves, the musicians? You need an audience. And this audience, if he's actively listening, something else happens too, unless one can experience.

There was.

In 1920, Steiner did listen to the quartet playing in the Stuttgart Waldorf School, and because he had no time for the concert, he came to a rehearsal and was standing behind the musicians and the Person who writes about this says you could feel him listening.

And one says this also of Mozart. When he came into a room, one could feel the strength of his listening.

So these are qualities which make modern in this sense, not modern in sense of E guitar, electric guitars, modern music.

Very, very difficult. And we're at the very, very beginning of a cultural impulse where Thomastic made a big step into the future.

And it's been more my work researching what to try and understand what was he doing and to your experience, the cellist Bull. He was a solo cellist in Munich. He said when he went into old people's homes, the old people would stand up and go to the back. And then he said, why do you do that? And then they would say it was so intensive, not it was so loud.

So the people who are used to not being able to list here so well would love to sit at the front, but they preferred to sit further back when he was playing.

And there are many things in this direction.

Yeah, I hope that's enough.

There is another. Another thing maybe.

Guidon Kramer is a very famous violinist and I went to a concert in Bremen and there were 1200 people in the audience and he was playing without any electrical help.

And when he did the cadence, that's the solo, he played so quietly with only two hairs of the bow that you hardly dared to breathe anymore. The whole audience was.

I had sort of the impression they're hanging on his bow because if he had played a little more quiet, we would have all dropped off.

So there is something very magical about producing tone and transmitting tone and receiving tone. And these are the new things one can work on.

[00:57:02] Speaker A: Thank you so much.

[00:57:05] Speaker B: Helps with this question.

[00:57:08] Speaker A: If I remember correctly, when you were in Bucharest, you talked a bit

about. And you. You just pointed it a bit in the start when talking about the violin, how it, let's say, breathes. You talked about the breeding of it in. And how the. The whole instrument works in during the. The play, when you play it.

Could you speak about that some more? Would be my request, so to say. I think it would bring more in depth for the audience.

[00:57:52] Speaker B: Okay, but I would like to first go to the earlier question, because here we are now having this base bar question.

So this is a very early model of the base bar.

And this pin here is where the bridge goes through the top of the violin. I will show you this violin. I have it here, goes through.

And the bridge stands on this foot and on this base bar.

Then I've got two photos of it. This is a Violin where I made the copy of. So this is the original one. I opened it in 1984 to repair these cracks. You can see there's a. A little strengthening on the cracks.

That's the back, as you can see. Thomastics thing here. You've also got the.

Where the.

Comes from the back through. I'll show it on the original violin.

This we had already. This is now again the inside where one goes through and the other one takes it. And there. That's to your last question.

When the pressure goes on to the pin which goes through the sound post.

Yes. It's not in this one. Then of course the pressure. It takes pressure off the top. And the top goes up and the bottom goes down. So it gets wider.

And when the pressure goes on the top, then it takes a pressure away from the bottom and. And then it closes. So the instrument breathes like this a bit.

Is that the question? You had the last one?

[01:00:04] Speaker A: Yes. Thank you.

[01:00:06] Speaker B: And this is a cello.

It's not so important.

This is the top of the cello. What's interesting on this photo is he also offered the option to.

To transform old instruments. And you can see to make. He changed the F holes by cutting them in a very different form. You've got the hole here. You've got the base bar.

Now this is a very complicated base bar which the.

It's.

It's a. Let's just leave it. It's just very complicated.

It's very technical. It's got to do. They call it a fish Bautriger. It's like.

Like It's. It starts here and it gets thicker to the middle. But it's also.

It's in the air. It's.

He didn't keep it. That's why this is then a later one where they're just simply two very straight. It's what you call it runtion, an X ray of a violin. And here you can see the tailpiece.

And this is the nut.

Where we had a question and there was a very interesting. This. I just couldn't understand why it had this bracket here. You could take it out, you could replace it.

And this funny form.

It was just not understandable. And it took 40 years. When I built this instrument, the copy. And I didn't want to do it so complicated. So I made it simpler.

And then I realized suddenly.

Kremmling, the employee from Domestic said it should have contact to your ad. This is the Adam's apple, isn't it?

Here?

So when you play it. And the chin rest is not too High, you can have contact and it disturbs the musicians.

That's why I'm convinced that you'd have to make it like this one here, take it out and make it fitting so that the person who plays it. But I haven't found musicians who are interesting to experiment with this.

Some say, oh, it doesn't disturb me. Others say, oh, yeah, I noticed. But yeah, there's a lot of research also that the musicians have to do it.

This is another invention.

It's a.

An end.

It's an A button which is screwed in. Very, very modern today. They're all saying how important it is. Tomasic had it 120 years ago.

This is then Weidler tried to make its lemniscate form by bending.

Didn't really work.

But this is then in the 70s and this is the pegs.

Thomastic also invented pegs which could be. Were finer in the adjustment. Patented pegs because they had a metal shaft and the wooden shaft, they tend to get rough and the metal shaft is very fine. And then he would put bushes into the peg box and like that he had.

Because using steel strings, you had to be able to tune very fine.

Now this is a finished. This is the violin where the pegs are in.

And now we've got the tail piece.

And this is still. For me, it's a bit of a. Of a.

A secret what he's been trying to do.

What's definitely the fact is that you've got different lengths of the strings behind the bridge, which are. They resonate, of course, and then this huge weight here makes it.

Makes it wobble at a certain, certain frequency.

And I hope I've got.

Sorry, no, I don't. We'll have to go back to the X ray.

Sorry, it's too far here.

That black spot, that's a little lump of lead.

So when we have acoustics, which Tomastick studied in his university, acoustics and physics.

If you put more weight on something that is vibrating in the air, it slows it down because it becomes heavier.

So what he did with that, I do know from his own.

We've got one article which he wrote that he did a lot of research in the vibrating qualities of the instruments and he would then tune them.

And you can understand or have an impression if you go to a concert and see the timpani, so the big copper drums, if you see the timpani player, he has a whole lot of screws around the skin of the drum.

And before he plays, he tunes them by hitting in every corner.

So he gets the Tension of the skin.

It's a hide.

He gets them tuned so that the sound is better.

And Thomastic did a lot of research on this as well. So we got there and now we've got this one. And this is the next model, which is much more elegant. It's lighter. And here would be the.

The lead put in from the underside. It's also to be researched. Here's a viola which he built. And this is the original tailpiece. This is also. This, his third model, which is also a patented model. Came in this little box. I knew them from my youth.

And this is the Thomastic logo on the resin they made.

And this is the form of the bridge that he made in the 20s.

This is an original. This is a copy in olive wood. This is a copy in maplewood. And this is a copy in lemon wood, which I got from Sicily, because somebody said there was a. Was one should take lemon wood. But Tomastick himself, in the. In the 30s, he said, we're making the bridge of olive wood. It has a more mature sound.

And this is also olive, his original.

This is an earlier model of his where the.

You can see the form. It comes out. It's very wide at the bottom.

So here again.

Oh, we've got a lot of weight at the bottom. And it's very thin and light at the top.

This is my model. You can unfortunately not see it on the violin. And that is to his. Ayas is also again, this tailpiece to his inventions. And so maybe we should bring it to an end by showing you the original violin, which I have here.

[01:09:03] Speaker A: Maybe you could stop the sharing of the screen so you can. Everybody can see the violin better. Perfect. Thank you.

[01:09:13] Speaker B: Ah, okay, fine. Thank you.

Okay, you're doing your job well.

Thank you.

[01:09:22] Speaker A: I thank you.

[01:09:24] Speaker B: So this is an early violin. It's probably 1912. It still has a scroll, but it's much longer than the traditional one.

Another thing which was important for him is that the bridge was standing at an angle, that the saddle at the back is as high as the strings over the fingerboard. So the angle where the bridge was absolutely the same on both sides.

These kind of things he was researching. On the back looks like this decorated. It's not quite understandable why he makes this tea in it.

Awesome. Some kind of secret of his, I don't know.

And what's interesting on this violin is I can open it still because it isn't closed. So you can see we've got the top where the bridge would stand on this pillar and the hole where the.

So put it this way would stand on this. So they're both at the same elevation.

And the bridge would be here.

Sorry, I think I'd have to hold it like this.

And then the strings go over and this what's interesting. This was one I showed you with the earlier. He's also put in a lot of strength here which is unusual.

And yeah I think I should just let you ask questions if there are any more. Because.

[01:11:22] Speaker A: There was a request maybe you can talk more about the scrolls.

[01:11:34] Speaker B: My impression about the scroll is they have to do.

The violin is sort of projects its sound into the room which just the difference to the. To these instruments. As you explained you feel it's there.

And if you listen to somebody playing a traditional violin it's more like he's shooting an arrow at you. I mean that sounds awful but it's more from the center to you.

And I think the scroll offers you that. It goes out and then it's there push as a. As a inspiration from.

From how the instrument sounds. I think lots of it's got to. To work. It's got to have. It's. You've got to be able to play. You've got to get your hand here with the bow and it's got to be not too large.

So there's two aspects. The one is the artistic aspect and the other is the musician musical aspect. And I think this is a.

A model to that. And we have then in the baroque time we have heads of angels of. Of. Of modern very different heads. Even animals.

And Weidler took decided for this five pointed star which was on the majority of my instruments. I've built nearly 70 of these instruments in my life.

And Thomas left that with this very simple like a canoe going out. We saw on. On my later copies of his instruments and that was. This has to corresponds to this length so to all heart for Thomastic thing.

And another thing that maybe is interesting. He called his violin the German violin. Which one can't in Germany really say it sort of a bit.

Yeah. He first called it the Reform violin. Then he called it the German violin. And we now just talk of the new violin. Because his idea was it came out of the Goethe and Isische culture.

That's why he called it the German Biden. Which is understandable.

[01:14:18] Speaker A: Thank you so much for the in depth explanation. It's. It really brought some. Some new ideas to me and I'll use them. And I'm sure that for everybody here.

[01:14:30] Speaker B: Yeah.

[01:14:32] Speaker A: So we are getting.

[01:14:34] Speaker B: Yeah we are getting tired.

[01:14:37] Speaker A: I'M giving another heads up for the participants if they want to ask any other questions because we are nearing the end, maybe another couple of minutes and this is the opportunity to ask questions.

[01:15:01] Speaker C: We have one person asking if you would be willing to play. But I don't think the quality of sound will come across the zoom meeting.

[01:15:13] Speaker B: Unfortunately I'm not a musician, right. But I can tell you something very interesting to playing, especially somebody who's interested in tone because it is if one takes one's arm with the bow over the instrument. My friend who played the tenor, he's unfortunately died which also was part of the end of the sep kit. He was always surprised what kind of tone I could get out of an instrument. If you take your arm playing the bow, you can do this with any kind of instrument. It doesn't have to be.

You'll notice if you don't use your muscle force but use the gravity as weight and try to have a shoulder that is relaxed.

I visited a class which Reinhold Bohl gave to a cellist and this lady tried and when he demonstrated it it sounded worlds of difference.

So maybe that helps to find a way how much difference these little things play using the gravity in your arm, the weight of your arm and not the strength of your arm. You can see the difference when I do this or when I do this.

And that is one of the secrets there is can't do.

[01:17:08] Speaker A: During your presentation you talked about strings and there is a question about the Thomastic strings.

What could you tell about them?

[01:17:20] Speaker B: Okay.

The question is of course very general.

I.

Thomastic is a firm.

Somebody's asking if you have instruments to sell that's not quite fitting.

[01:17:42] Speaker C: I do.

[01:17:42] Speaker B: Yes.

Hahaha.

Sorry.

I can read the the.

It's distracting about strings. The firm Thomastic is one of the the.

They still in the same place they're making strings.

I think they have 2,000 different products and they haven't moved out of the city of Vienna because they have a lot of part time employees and women.

And so they wanted to keep this system that the people could come easily to work.

And Tomastick, as I said, sold strings already before the first World war worldwide.

And that was the beginning of metal strings in the 30s. And he was just in advance with that. And you must imagine when we had the financial crash, 1927 or 8 or when it was was Tomasi couldn't sell his instruments, they were too expensive.

But strings he could produce at because everybody needed strings.

And then at that time he even made advertisements in the newspaper offering his help to rig up cinemas for the new tone films, because they had been till those days mainly this was in 1933. So he was trying to do everything to keep his business running in these very difficult financial times. And then the Second World War came, which. Where everything was burned down and then he didn't write anything on paper anymore. So we don't have an archive where we can say these are templates, these are. This.

We only. That's why it was. It's so difficult to, to portion, to, to. To study this, this topic because there's not really anything there. A lot of contradictions.

Yeah.

[01:20:28] Speaker A: Andrew, you're on mute. I'm sorry, we didn't hear you.

[01:20:35] Speaker C: My, my. My mistake. Arthur, We've had a mtech webinar with a man and I'm just asking if you have met him and if you haven't, I recommend it.

His name is Tobias K K A Y E. He lives in the UK and he has taken the concept of a resonating box that most instruments have and he's sort of taken the COVID off and looked at what he calls sounding bowls for the quality of their sound that they make. So it's like a lyre without a cover.

And so the strings are over an open bowl.

And we had him on and it was quite interesting. He did play some for us, but he had all the zoom settings set up ahead of time, which we haven't done here for you to play today, this audience.

So. But if you haven't it, you know, it might be interesting for the two of you to meet up at some point and. And share your.

[01:21:50] Speaker B: Yeah.

[01:21:50] Speaker C: Sights.

[01:21:51] Speaker B: Very nice. My master, who's also died in, he also did lots of experiments like that on playing on balls. And we made.

When I was an apprentice at his place in the early 70s, we made also canteleo of boards, not of with us, just simply a board with the strings over it.

Yeah. So he did a lot of that in his work, in his life.

[01:22:35] Speaker C: And another question.

You were an apprentice to Thomasik. Do you have apprentices?

[01:22:45] Speaker B: I'm not apprentice to Thomas, researcher to Thomasic, because he died already.

[01:22:53] Speaker C: Right.

Are the people learning from you?

[01:22:57] Speaker B: I've had eight apprentices but as I was saying, the musical impulse is such a fine little seat.

None of them have taken it on and I have worked for this year and then there are no contracts and I'm not going to build instruments to hang on the wall.

That's my.

It's a hard one, but I'm getting up to 70 slowly.

Or quickly.

So yeah, okay, yeah, that's at the moment my attitude unless I have a.

A sudden impulse I have to study something.

But yeah, I don't know. In.

[01:24:00] Speaker C: In Germany and I'm not sure the name of the town is a research group by the name of Langer and we've had them on two years ago the MTech annual conference was on residents cymatics and so on harmony.

And it would have been a good time to have had you, but we didn't know about you back then. But yeah. Laut Sanger L A U T S A N G E R yeah, I've.

[01:24:36] Speaker B: Heard of them, but I haven't. We haven't any acquaintance.

I mean this was also one of the things in the patent of Thomask. He said it's to be like the sound is to be like the voice, the human voice. That's his ideal.

And he was an incredibly gifted violinist because at the age of 17 he played in his school at a end of term or end of school concert and the newspaper wrote about his.

His. Him playing the violin very well.

So in those days, of course when a newspaper wrote something like that, it must have been worth writing.

Yeah.

[01:25:31] Speaker C: There's another couple comments. I don't know if you want to share them.

[01:25:36] Speaker A: Yeah, I did. I did see them and I wanted to. What I. I've let you ask the questions.

There is a comment if you are seeking musicians to help with research and experimentation. Right now there's someone who would be interested in that.

[01:25:55] Speaker B: If somebody's interested, I'm open.

Yeah.

My attitude is it's, it's. It's got to.

These things fall together or they don't.

Yeah. At the age of 35 I said I have to build the septet. I've got to get this done. And I just ran through all walls against.

I didn't have money and I just built. And it just didn't bother anything. It had to be done. And then I had to make this podium where one could display them. So I made these festivals, four of them. Yes. The Heiligenberg Music Week.

And I forgot in the financing of them to finance the organizer.

He just all did it as a hobby.

And so that.

Yeah. And then the musicians started to say Arthur, don't push that much. So I said okay, take it in your hands and that. I mean letting life speak. Isn't that part of our destiny?

Maybe I've slept something. Maybe I've should have been more awake, but probably.

But I've been at it since. Since I'm 14.

So that's quite a wee while.

[01:27:28] Speaker A: We will thank you.

[01:27:29] Speaker C: Thank you for that and thank you Christine, for. And others for putting in links, Tom, to various things for people who want to continue to take this topic further. They put some links in into the chat. So if you look there, once the webinar ends, you know these will be gone. So if you're interested in any of those things, just click on the links now. It'll open in your browser those particular pages and webinar you can explore them further.

[01:28:11] Speaker A: I think we are nearing the end.

[01:28:13] Speaker B: Yeah.

How do I keep them, these things? Can I. Because I can't read it now. It's too much.

[01:28:21] Speaker C: Right. I. I can.

Well, the thing you can do is just click them right now.

[01:28:29] Speaker A: I clicked on them and I will share with, with, with you, Arthur.

[01:28:34] Speaker B: Okay. It's just I'm a bit fatigued from looking in this.

[01:28:40] Speaker A: I have been in your shoes and I do understand it quite well. It is, it is. It takes a toll on you.

I want to thank.

[01:28:49] Speaker B: Very grateful that the machine worked so well and I hope it was understandable.

[01:28:57] Speaker C: Oh yeah.

[01:28:58] Speaker B: Or inspiring.

[01:29:00] Speaker C: That too.

[01:29:03] Speaker B: Yeah. I'm very glad the screen didn't freeze. That would have freaked me out.

And thank you for your help that it worked.

[01:29:14] Speaker A: We thank you for you for the opportunity and for your openness to share so much of your life and so much of your work and research.

And I thank all the audience for the questions. I. I see that they were very lively and that brings always joy and yes, that. And I always thank Andrew for all his hard work and providing this opportunity for us to meet and share and develop in all aspects. Because making instruments seems very, I would say, down to earth. But it helps us develop spiritually very much, at least in my view. And I want to thank you Arthur, again for what you have showed and shared with us.

[01:30:04] Speaker C: Yes, thank you, Arthur.

[01:30:06] Speaker B: Yeah, it's a pleasure. We couldn't manage without the help from the other side.

It's my impression.

Yeah.

Okay.

[01:30:17] Speaker A: Well, with that giving you the microphone, Andrew, for the end.

[01:30:23] Speaker C: Well, I don't have much more to say.

[01:30:25] Speaker B: I. You.

[01:30:25] Speaker C: You did tell people about the. The MsTech conference. August 7th to the 10th on nistech.org they can go to register. And I wish you all a wonderful summer. If it's summer where you are or wonderful time.

And thank you again to Arthur for being our guest today and bringing your life's work to us.

[01:30:51] Speaker B: So it was an honor. Thank you.

[01:30:54] Speaker C: So we'll say goodbye to all of you and there will not be a webinar in August. We'll skip that because of the conference. So the next one will be in September.

So I hope to see you all then. Bye. Bye.

[01:31:10] Speaker A: Bye. Bye.