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PROFESSOR: We should start. And I have to introduce-- although she's probably introduced herself already, this is Jean Rife, who is the curator of harpsichords at MIT. I love that title.

JEAN RIFE: Theresa just dubbed me that, yes.

PROFESSOR: Partly because we have three instruments on campus, and Jean spearheaded this amazing activity of let's put the right harpsichord in the right place. Let's refurbish them. Let's treat them with respect.

JEAN RIFE: Let's get rid of some, and let's get some new ones.

PROFESSOR: Yeah. So there was a real movement in action, and now we have three instruments that belong in the right place and do the right things, and we can now do demonstrations like this. And that's very cool.

AUDIENCE: So wouldn't we break place?

JEAN RIFE: I'll talk about them, but we just have three new-- two of them are brand new. Two of our instruments are brand new. This one's been here since it was built in 1973. But they're for different purposes, and we'll talk about that.

PROFESSOR: It's different than the piano because the space and the instrument really do need to be matched up properly, and different types of pieces are better on different instruments. There's all kinds of wonderful variations that go along with that.

Jean is also a virtuoso horn player, which is-- maybe you guys know, and maybe you guys don't know. And she also coaches our chamber music ensembles. So thank you for coming, and I'll let you take it from here.

JEAN RIFE: Great. Thank you, Theresa. So, glad to see you all here and know that some of you are keyboard players and will delight in trying instruments at the end, which I expect all of you to do. So, just wanted to talk a little bit about the harpsichord and its place in history.

The first harpsichord was invented, they think-- I mean, who knows that far back but-- around 1395. So the harpsichord was in use from around that time, 1400, to middle of the 19th century, 18-something. So it's over 400 years.

The piano history kind of shrinks in comparison, doesn't it? The modern piano's been around since, what, 1860? Almost what we have now. 1860s-- you know, they were developing pianos, of course, in the 18th century, but it hasn't been the primary keyboard instrument for as long as the harpsichord was.

And during that time, it took many shapes. What distinguishes a harpsichord from other instruments is that the strings are plucked. And I will show you the mechanism a little bit later, but I just want to talk about the history of it and how it was developed. And in different parts of Europe, it was different shapes. It had different sounds depending on what the sensibilities of the culture were.

And they used to think, OK, there are French harpsichords that have a certain shape, and that's generally true. French harpsichords-- this is called a French double, a "double" because there are two keyboards and "French" because it has some of the sound characteristics and the shape. And the woods of most French harpsichords-- built by a couple of families that were prominent in Paris.

There are Flemish harpsichords. We don't have one of those on campus, but they usually look similar to this, but the adjustments of the stops are on the side instead of inside here, generally. Italian harpsichords tend to be long, narrower than this, usually one manual, and have a more plucky sound rather than a rich, full ringing sound like the French. And then there are German ones that are not so popular in our culture. The French ones really took a lot of space in the revival of the instruments.

When the piano started being developed in the late 1700s, harpsichord was kind of replaced by piano. Haydn could go either way. Some of his trios are equally delightful on harpsichord as they are on piano. Sometimes it's nice to play.

But the piano of the time was also different from the piano now. It was much lighter. And when the piano started being developed, the harpsichord was really at its peak, and the piano wasn't. So 1790s harpsichords are going to be a lot better than 1790s pianos. They didn't quite know how to do it yet.

And it was used a great deal longer as an opera continuo instrument than it was as a solo or chamber music instrument. So you find Mozart operas almost always-- you'll find now with people doing things-- have a harpsichord there. So that carried into quite late before it was really replaced by the piano.

In the early 19th, 20th century-- 1910-- yeah, probably in the 1910s, the British started thinking, no, let's do some old music. And there started being a revival very shortly after baroque music kind of died and the harpsichord kind of died. People started saying, you know, that was nice music. Let's bring some of it back.

And Carl Dolmetsch in England started building instruments. And there were some people who would go and work with him, people who were interested, became interested, in those. And he didn't really copy old instruments.

Before the World Wars, there was a great belief that we're getting better and better all the time. Everything's progress. You know, we're progressing. Things are getting better and better. So what they tried to do when there was first a harpsichord revival or revival of early music was to say OK, let's use what we know and make these instruments better than they were making 'em back then.

So there was one school that went that way, and then people started-- there was this man named Hugh Gough in Germany, I think, who said wait a second, those are really great instruments. Because there were a lot still extant in museums, in private collections. And they were hearing them, and they were saying, these are beautiful. These are much more beautiful than what Dolmetsch is building. So people worked along those lines, too. So there were two schools in general going like that.

After the war, after the second war, people realized not everything's getting better and better. So there was kind of a cultural change, too. There were two young men, Harvard students. One was named Frank Hubbard, and he had a younger friend-- they'd been friends since childhood-- named William Dowd-- and you can find his name right here-- who got really interested in this when they were students. They were both English majors at Harvard, and they started thinking, hm, it might be interesting to build harpsichords.

So they started building. One of them went to Europe. Frank Hubbard went to Europe and worked with Dolmetsch for a bit and realized he was doing nothing but getting coffee, stringing

instruments, doing boring kinds of work and said, I don't like this so much. So he went to Germany and started working with Hugh Gough. That's G-O-U-G-H.

And what Gough was doing was going around measuring old instruments and getting exact measurements of things. Modern piano has an open bottom. Harpsichords are closed on the bottom. So Dolmetsch was doing the open-bottom things, and Gough was saying that doesn't make sense. These sound different. These sound better.

So during that process, Frank Hubbard started reading his notes. He opened his bookstore to him, basically, and started getting really interested in the whole prospect and the project and wrote his own book, *Three Centuries of Harpsichord Building*, which is still available. It's in the library. It's a classic. And came back.

And Dowd was doing his own research and building. They got together and rented a place and in South Boston. They talk about-- they had to sit by the heater until 11 o'clock in the morning to get warm enough to go off in the corners and work, but they started building. And they actually created a movement of copying old instruments.

There was someone in Germany, Skowroneck, who was independently doing work, and so he created a school in Europe. But the revival of instruments really centered in the US and grew up here. Meanwhile, there was a man, a German who came to America, Zuckermann, and thought everybody should have a harpsichord, so he created the harpsichord kit business and made a very simple box.

And you can find these kits all over the place now. You know, somebody says oh, we have an instrument at our school, but nobody's played it for 30, 40 years. And you go, and it's a Zuckermann kit that was put together, no bent sides, nothing complicated. But his mission was to get things out.

In the '70s, that was bought by David Way, who was a great marketer. Marketed it all over the world, actually, Zuckermann harpsichords. And he also started building really beautiful harpsichords, and there are some beautiful instruments by David Way in Boston, actually, around here. Boston and actually became a center for early music, so there are millions of harpsichords around here, millions of wonderful players. And you can just look around, go to a lot of places, and find great harpsichordists.

So all these things were happening. In the early 18th, late 17th century, there was a time when

they thought the pianos were coming along. They had dynamics. Harpsichord is one dynamic, and you actually can increase the dynamic by adding registers, get two sets of strings going at once or play more notes at the same time. But otherwise, you can't play louder.

So people would come up in the age of invention when saxophones were being developed and sarrusophones, all kinds of instruments were being invented. They were trying to figure out how to do this, and they actually had a Venetian blind thing inside so you could open up the keyboard. So all kinds of things happened in the history of this.

So what they found was the more and more they copied old instruments, the better they worked. For a while they were using plywood for soundboards, and they realized OK, that that's supposed to kind of control the shrinkage, but actually what it does is it expands in different directions at the same time and you can't control it. And they realized that old people like Taskin and Ruckers actually knew what the woods did really well and so copied more and more.

So what can be varied now in harpsichords? The shape of the instrument. This is a typical French shape here. You can have a square box, a virginal, which is popular in England and the Netherlands. You can have a spinet, which generally has one side that's kind of a trapezoid shape. You can have narrower, long, wider.

What other kinds of things? Shapes. Oh, there's the clavicytherium, and people are starting to copy those more. It's basically a harpsichord with the strings going up in the air. It's great for a small apartment with high ceilings because it doesn't take so much floor space. So you don't have to sleep under your harpsichord. You can sleep beside it.

The wires-- why don't you come up here and just let me show you some of the inside? And while we do this you, should always move around and get different vantage points and different sound vantage points, OK? All right.

We're just going to take-- this music desk is not an original kind of music desk. It was one of Dowd's great inventions. So it could be folded down into the instrument, so that's pretty nice. These pins are a new style. The older pins would be flatter.

Harpsichord needs to be tuned sometimes every day, in New England especially. At home, mine doesn't have to be tuned more than once a week because I have a dehumidifier for the summers and the humidifier for the winters.

So this comes off. What this does is-- and you see it has felt on it. It stops the jacks from flying up into the air. You see come up there. And not so good, right? Just sticks. Now this is going to be hard to get back in. I don't know what I did. These are called jacks.

And if you look, here's the damper. There's a felt damper. There's the plectra right there. So you see it goes up.

The plectra plucks the strings, and when it comes back down, there actually is a sound. If you listen really carefully, you can hear it going the other way. That's very quiet the other way. And then when you take your finger off the key, the damper will come back down most of the time if you have this jack stop on it. The other thing that happens-- this goes back, you see?

Oh, the plectrum is important. OK. What do you make that out of? They used crow quill back in the day.

One of the things that Hubbard and Dowd experimented with was a material called Delrin. DuPont actually was developing this plastic, and they asked Hubbard and Dowd to try it out. So they were expecting back a report with statistics and stuff like that. Well, they wrote back and said wow, with Delrin, you can play four hours a day on the "Chromatic Fantasy and Fugue" and not break a quill.

Delrin became a very popular thing. Crow quill has a different sound. And they tried all kinds of materials. They tried leather plectra, which has kind of a sweet sound, but you can understand what the limitations of that would be. And finally, somebody said, you know, crow quill sounds a lot like crow quill.

The problem with crow quill was that in the '50s, it broke all the time, constantly was breaking. It doesn't so much now because we got rid of DDT. So it was breaking a lot in the '50s. I mean, they were thinking, whoa, what are those people doing back then? They're spending their whole-- they're like, oh, they're always making reeds. They're always replacing quills. But no, it was stronger.

So now that we've gotten rid of DDT, people are using crow quill. But in institutional settings and a lot of homes, you will still find Delrin because it's a pretty good substitute. It does have a little curve in it. It's not completely flat, so you make sure that goes down.

One other thing I forgot to show you-- on the back of this is a little spring. On this, it's a little

piece of wire so that once this goes by, that will push this back. You can see it's a wire in there. That was originally boar bristle. And again, some harpsichords will get that. It doesn't really affect the sound that much, so most people are using-- this is just harpsichord wire. It's just off the instrument.

What I've discovered working with harpsichord builders is they are incredibly meticulous. Half a paper's width of shaving on a part can make a huge difference in the harpsichord, in the sound, in the way it works. You see these are fit very well in the guide, but they can't be too tight or they won't go down.

And they have to be able to tolerate the weather change. When the wood swells, it has to be able to tolerate that. The length of that spring that I just showed you, that wire in there, makes a great deal of a difference. If it's up one millimeter, it can change how responsive the jack is coming back.

So any questions about the inside? The wires are sometimes steel, sometimes iron, sometimes brass. So you can see this is completely strung in brass up to this point, and then he changes over to-- I believe this is steel but it might be iron. I'm not sure. And that's something else. I mean, there are people who are just making harpsichord wires now. Looking for a career? You want to build?

And for a while, everybody had to get rose wires, and now it's something else. Little fads. And they really get better. They make the instrument sound better. Anybody have any questions about the inside of this?

PROFESSOR: Can you engage the difference stops and maybe show us?

JEAN RIFE: I will do that. Yeah. So Theresa is asking about the stops. This keyboard here, upper keyboard, can move in or move out. And when it moves in, the mechanism that hits the back of the jacks moves back so it can move another row of these.

So I don't want to go very high, but they all move, but they strike the string if it's back further. If it comes out here-- oh. That's what it is. As you move back, you get out of the way of this one, right? You move forward, rather. So you're not engaging the front one here at all.

This is called the front 8', played on the upper keyboard. So it's kind of confusing. That seemed backwards to me, but from the inside, it's right. It's closer to the bridge. The front 8' will have a more nasal sound. So we're not playing that at all now. If I go--

[PLAYS NOTES]

You can hear that, right? That's the back 8'. It's further back. And then there's a four-foot. And they're designated eight-foot and four-foot. That's just taken from organ. Name-ology-- what do you call that? What's the word?

AUDIENCE: Terminology.

JEAN RIFE: Terminology. Thanks. So that's one way you can make it louder. On the front here, I'm going to put this back on.

AUDIENCE: I have a quick question.

JEAN RIFE: Yeah.

AUDIENCE: [INAUDIBLE]

JEAN RIFE: These are the tuning pins here. There's a tuning hammer right here. And most people will tune one octave and then by ear tune from there. Octaves, fourths, fifths all the way down, all the way up. Then tune the different registers. It takes about 15 minutes for somebody to tune a harpsichord.

It's not like a piano. It's nowhere near as hard as a piano. And most harpsichordists don't sit there listening for beats. Piano tuners really have to do that. Harpsichordists-- most of us say OK, let's just tune. And you do it.

I saw somebody tune in Sanders Theatre once. It was in the middle of Banchetto Musicale concert, and the bright lights coming on in the cold weather heated up the harpsichord so it was so out of tune that it was unbearable. And so Martin Pearlman sat down at the break and tuned the whole-- well, it wasn't even the break. It was between two pieces. I timed it. It was three and 1/2 minutes.

It was fine. It was fine after that. It's amazing what you can do under a crunch, right?

AUDIENCE: How long were the plec--

JEAN RIFE: What?

AUDIENCE: The pluck--

JEAN RIFE: Plectra?

AUDIENCE: Yes, plectra. How long will they last? Is it four hours? Is that a normal time? Or, how long will these last?

JEAN RIFE: You mean--

AUDIENCE: The Delrin.

JEAN RIFE: How long will the Delrin stay in there and be playable?

AUDIENCE: Yeah.

JEAN RIFE: Years.

AUDIENCE: Years? OK.

JEAN RIFE: Yeah. Yeah, sometimes it cracks down the middle, and you can really tell by the sound. If it starts sounding funny, then OK, let's re-quill. So you've got this.

This here is called a buff stop, or peu de buffle. Can we get this-- thanks. This is leather here, and you can actually touch it if you want.

So that when I move this, it will damp the string just a little bit.

[PLAYS NOTES]

So it doesn't ring very much. It's also called the lute stop sometimes.

[PLAYS NOTES]

So that's kind of fun to play with. Some people overuse it. You like the sound so much you end up getting a lot of it.

Here you've got--

[PLAYS NOTES]

So here's one eight and a four. What you notice if you go very slowly--

[PLAYS NOTES]

They come one after the other.

[PLAYS NOTES]

And if I put on two eights and a four, it works really well.

[PLAYS NOTES]

This is well-regulated harpsichord.

[PLAYS NOTES]

It kind of mimics what we do when we're playing. If we're playing a big chord, generally it's like that. It's not like--

[PLAYS CHORDS]

You can hear it.

[PLAYS CHORDS]

Right? And you can vary the speed of those for more lushness and stuff.

I have to say this harpsichord has had a long, hard life here. It's been here over 40 years. It was built in 1973 and brought straight here. It lived for years in the chapel, and the weather in the chapel is variable, right? It gets really hot in the summer and really cold in the winter. It's damp.

So I have a big place in my heart for this instrument. It's been through a lot. And you can see it's been beat up. For a while, we had a lock on it. Nobody knows where the key is now, and it's useless anyway because, I mean, when you have a lock, what do people do? They pick it and play the harpsichord anyway.

And for a while, we had a cover that had metal, so it got beat up a lot. I don't know what these holes got drilled for, but I'm sure Bill Dowd would be really unhappy with the finish.

But when we had it rebuilt, we had all the jacks replaced. They were plastic, and plastic warps.

And so this part had to come out. Every jack got replaced, every string got replaced, and the whole thing went from a good harpsichord to what I consider world-class.

I think it's as good as any harpsichord you'll find in Boston, and that's saying a lot. I mean, when it first got delivered, I had Peter and Christie from the library-- it came in the summer, and I said, I was so excited. So they came over and Peter said, it sounds like it's plugged in. So it really made a big difference with the sound, but it's really an upgrade to more what it was then.

Let's see if there's any other toys I can show you here. I don't think so. So you see we can play with one eight-foot, two eight-foots, either eight-foot, the upper manual with lute, or one eight and a four. That's off now, right? Or two eights and a four, which is the most sound you're going to get out of it, which is quite a lot.

AUDIENCE: If you play the upper with lutes, can you also play the lower without the [INAUDIBLE]?

JEAN RIFE: Yeah. Yeah. Yeah, so you if you put the lute stop on--

AUDIENCE: --it's just on there.

JEAN RIFE: Yeah, and this instrument-- a lot of instruments will have the lute stop on the bottom manual. So every instrument's somewhat different, so you always have to check out-- OK, so where's the lute stop? Where is the eight-foot? Where is the four-foot? Yeah, Anthony.

AUDIENCE: Do you normally change those in middle of a piece or would that just be--

JEAN RIFE: It depends on the piece. A piece by Ligeti-- there's one movement straight through. It's called "Continuum." He's changing a lot. So you need a really good page-turner.

But most early pieces I don't change. If I get to it, there's one piece today where I will go from one manual to the other, and you'll hear that. But mostly I'll play one piece on one stop. Any other questions about the instrument?

PROFESSOR: I'm going to ask the obvious one. Why are the keys reversed in color?

JEAN RIFE: Why are the keys reversed in color? Can't answer that. I think it's what the builder liked. Yeah, yeah. I mean, you find instruments with a lightwood down here and a darkwood up here. So you find a lot of different variations of it.

And that's one thing that builders really take pride in, their choice of woods, both for sound and for beauty. So they're really building a fine piece of furniture at the same time that they're building a fine instrument. Yeah.

AUDIENCE: Do you happen to know what these keys are made of?

JEAN RIFE: I don't. I don't know woods that well, but you know, if there were an expert here-- you can see there are two kinds of wood. Also notice that underneath the keys, if you come around here, are hollowed out. Some instruments have them even more hollowed out.

Actually, the upper manual-- reach through. Just come and touch. If you go here-- well, that one-- you can feel those are hollowed out a little bit there. And the upper manual also. That's to make the keys lighter.

AUDIENCE: Why are the uppers more hollowed out than the lower ones?

JEAN RIFE: I'm not sure they are now that I've put my fingers in there more.

AUDIENCE: They are.

JEAN RIFE: Are they?

AUDIENCE: Yes.

JEAN RIFE: That's a good question. I don't know. That's an interesting question. I'm sure he had a reason, knowing harpsichord builders. There's so meticulous. Unbelievable.

PROFESSOR: It's not the length of the key. Is it because the top manual can move in and out? Would that need a different balance?

AUDIENCE: It's significantly more hollowed out.

JEAN RIFE: It's possible because the keys are closer to the plucking point that they want them lighter.

Peter Sykes, my teacher, has a Flemish virginal, and as you get to the lower, the character of it, the strings, are coming here, and the plucking points get closer and closer to the keys the lower you get. So by the time you get down here in this register, they're very hard to push down, and if you get too far into the key, you can't push them down at all because the pin might be right on the other side of the board, so you need more leverage. So it's possible that because you have less leverage here-- it's a theory. Not sure.

And I think Mr. Dowd is dead. I think he died recently. Mr. Hubbard died in the '70s. Bill Dowd was around a lot longer. OK. Any other questions about mechanics? Let's get some music going. OK.

PROFESSOR: Even as Jean plays, we should move.

JEAN RIFE: Feel free to wander around. Look. Peek underneath. Listen to the harpsichord from different parts of the room because it does sound different in different areas. And feel free to peek over my shoulder if you want to look at the music.

PROFESSOR: Are you using printed music or are you using your iPad?

JEAN RIFE: I'm using my iPad, but it has music on it. One piece I'm playing with music if I get to it.

PROFESSOR: And look underneath, too. And we've got a piano next to it, so we've got-- you can see how it's solid here, right? And if you look under the piano, you'll see that it's rather different.

JEAN RIFE: Rather different.

AUDIENCE: You know if we move the [INAUDIBLE]

JEAN RIFE: I don't know what type of the wood this is. The soundboard's generally spruce, I think. What is that called? What's this called?

PROFESSOR: The medallion?

JEAN RIFE: Yeah.

PROFESSOR: The sound hole?

JEAN RIFE: That's what it is. Yeah. It's like an F-hole, but it's-- and you'll see different decorations in here. Some of these particles are beautifully painted. There's a woman in town, Sheridan German, who also wrote a book, but she used to make a living just painting harpsichord soundboards. Yeah, it is pretty cool.

William Hyman, who was a great maker, was Jewish, so he always put Magen David in his harpsichords. And when David Way copied him, he did the same.

So I'm going to just play a sampling of pieces from different countries so you get an idea of

what stylistic differences existed. Be aware that some of these people traveled a lot. So we'll talk about each composer a little bit as we go along. I always run out of time.

So this is William Byrd. A lot of people know him from singing. Wrote a lot of vocal music and a lot of keyboard music.

These pieces are from Fitzwilliam Virginal Book, and I can't remember when that was discovered. It was discovered somewhere. A whole bunch of British composers. And it was collected. There all kinds of legends around it, like somebody, this guy Tregian, maybe copied the whole thing in prison, except he wasn't in prison long enough to really have done that. So there are lots of questions around what it was.

There's no evidence that Queen Elizabeth I actually knew the book even though it was named for her. She did play virginal. She was a good musician. So we know that. So legends grow up, and they're always fun.

AUDIENCE: We like [INAUDIBLE].

JEAN RIFE: We do. So I'm going to play this with two eights. This is Wolsey's Wilde. A lot of these have great titles. This is one of the more down-to-earth titles. Wolsey's Wilde is just somebody's piece of land where people like to go hunting. And you notice what the baseline's doing. OK.

[MUSIC - WILLIAM BYRD, "WOLSEY'S WILDE"]

So the baseline's very simple. Lot of variation in the writing. You hear that. I'm going to skip this next piece. I have a four-foot on my-- yup. And hop to Rome.

Frescobaldi was a great Roman organist. He started out at Santa Maria di Trastevere, which, if you've been to Rome, is on the other side of the Tiber River. And it's a beautiful church. I've been there. So he was the organist there for a while, and then he went to Brussels and stayed for four years and came back and ended up being the organist in Saint Peter's. But he was very well known.

Toccata, as you know, is a touch piece. It's improvisatory. He wrote it down, so we don't have to improvise it, but it has that feeling to it.

[MUSIC - GIROLAMO FRESCOBALDI, "TOCCATA"]

So you can see how he uses the sound of the harpsichord. This piece actually would be better played on the Italian harpsichord which lives up in my office right now. So if any of you want to come and try that sometime, just send me an email and I'll give you a little private demo.

AUDIENCE: [INAUDIBLE]

JEAN RIFE: What?

AUDIENCE: [INAUDIBLE]

JEAN RIFE: This is a French double.

PROFESSOR: We were talking about how it fills the space, right? And that's partly the registration you've chosen but also just the way the instrument's constructed.

JEAN RIFE: It's the way the instrument is constructed and wired and voiced, which means how thick the Delrin is, how it's shaped. All those little tiny details are what makes it. This instrument in particular, of all the instruments here, will fill this space more beautifully, really. It sings. It really sings. Tommy.

AUDIENCE: Were there any duets for piano and harpsichord?

JEAN RIFE: What an interesting question. Elliott Carter wrote a concerto for piano and harpsichord, I think, in the '50s or '60s. So that's one I know. I think there is a possibility of a lot of the keyboard duets being played.

There's a C. P. E. Bach double, isn't there? Yeah. A harpsichord piano, forte piano, concerto, also. That was one of the first pieces I ever played when I was playing early US instruments. Horrible horn writing.

PROFESSOR: Well, he learned to do that from his father. Johann would create double concertos, concerto for four harpsichords. He had a lot of fun with multiple harpsichord concertos.

JEAN RIFE: Right. So Johann Jakob Froberger was German. I think he went to Vienna, and shortly after he got his job in Vienna, he applied for a grant to go study with Frescobaldi and spent quite a bit of time with Frescobaldi. Froberger also went to England.

There's a famous piece that he wrote after he went to England. He had a horrible time in England and was robbed by pirates on his way over and wrote a lament about that that event.

This particular one is "Meditation."

Who knows French in here? A little bit? "Meditation fate sur ma mort future la quelle se joue lentement avec discretion." So he's writing about his own future death.

In this, at the end he wrote, "Momento mori, Froberger." So the very last note is when he dies. You can hear some of the influence of Frescobaldi in this meditation, but you can also hear French influence. He was a very well traveled and very well known and highly respected composer of his time.

Only recently started being rediscovered. We don't know a lot about his life, but we do know he was around. So I'm going to do this also on one eight. I'll try and get my foot pedal working a little bit better here.

[MUSIC - JOHANN JAKOB FROBERGER, "MEDITATION FATE SUR MA MORT FUTURE"]

So that would normally have two repeats in it so you could enjoy it a lot longer.

PROFESSOR: Can we talk about ornaments?

JEAN RIFE: Yes.

PROFESSOR: There were a few you added yourself-- or is this all designated by Froberger?

JEAN RIFE: All the ornaments are designated by Froberger in here. You have the choice of whether to do them or not, and you have a choice of whether to add more.

Ornaments come in several different styles. In the Byrd, you have two little lines across the top, and I can show you that later. And there's a question about what those little things mean.

And so if we're coming from below, we go one direction. We just do a little mordent or a trill. And if you're coming from above, you do the other direction. Sometimes if you have two notes together and he puts that little thing over, we'll do just this-- what's that called? A couple de tierce. You have a little thing that joins the third. And we also can fill in between notes.

So, lots of things we can do with ornaments. I don't like to overdo them if it cuts away from the line. You find a lot more in the French music.

I'm going to do the Louis Couperin here. This is a really interesting-- you saw all the whole

notes in here. So why don't you come up and look at this. Louis Couperin only lived to be 35. He published none of his music in his lifetime.

But he came from a musical family, and Francois Couperin was his nephew, Francois "the Great," who put out tremendous amounts of music in his lifetime. Louis was working on a different career path. He was an organist in Saint Gervais in Paris eventually, and a very, very talented musician. Wrote a lot of different things.

But this unmeasured prelude is a lot of whole notes, but there are things to point out, which you've probably talked about. The lines that go where you hold these notes longer. And when you see two notes close together like this, it's almost always like this.

When you see a chord being filled in, it's not--

[PLAYS CHORDS]

Not all the same length. When you see a chord, you can do--

[PLAYS CHORDS]

So that's written-out ornaments around a broken chord, basically. And there are other places here. Here's a little ornament. He actually writes in a little mordent here. No, I'm done with you. Sometimes you want to add a rhythm, you see.

[PLAYS MUSIC]

You might want to add a rhythm to that. So they just look-- they're all whole notes. And then there's something else I wanted to show you which I'm not seeing right now. I think that's going to be about it.

So all those kinds of things can happen. You do have a lot of freedom in here, and it's not exactly the same every time I play it. So let's just do this one, this little prelude. This is about three and 1/2 minutes. And I do just one eight one this. It's my favorite.

[PLAYS MUSIC]

So that's Louis. Do you love that as much as I do?

PROFESSOR: Oh, yeah. You guys?

AUDIENCE: Yeah.

JEAN RIFE: I just think it's really incredible, and it's so surprising sometimes. You just-- whoa. My goodness. How did he get there? I just--

PROFESSOR: Well, I think that's true. The Frescobaldi, the Byrd-- they all have these moments of surprise, and I think we don't expect that out of harpsichord music or these composers.

JEAN RIFE: Right. You get used to hearing Corelli and Vivaldi as your baroque music go-to people, and as great is that music is, it's not so full of surprises as this.

PROFESSOR: The other thing-- as you guys have been going around the room, the sound of the instrument changes. And what I just tested out for myself-- the chuff, or the kind of resistance-- you can almost hear it more in the back of the space than in the front. Is that-- have you guys-- wander around. Tell me if I'm right. I just find that fascinating, how the sound can change based on where you are.

JEAN RIFE: Exactly. Yeah. And it would sound different in a different room. I mean, I always felt like nicest place to hear a harpsichord was in a really small, small space, chamber setting, but it could be pretty nice in a larger one, too.

Let's see. It's hard for me to choose. It was hard for me to choose this music because there's so much great music and every composer has so many different styles. I think I'd like to-- well, the [INAUDIBLE] is really pretty short, so I want to just play-- oh, there's the chaconne, too. Let me play the chaconne for you.

This is a different kind of Louis Couperin. And I'm going to put two eights on for this, but I'm going to be moving a little bit from one keyboard to another for a little sound variation. This is the only piece I'm doing that in.

And the chaconne-- he keeps coming back. It's almost like a rondo form. You do the tune, and then you do a little in between. Then you come back and do it again and then again and then again. So you'll hear.

[PLAYS MUSIC]

Oh, I want that to happen.

[PLAYS MUSIC]

So you can hear how he really takes advantage of the low register of the instrument, and a lot of French music is like that. That really takes advantage of it. Bach does it also in his-- I want to wrap up, but he does it in one of his French Suites.

I'm leaving out all kinds of people I'd love to share with you, but you'll have a chance to hear more music. And I'm just going to play the beginning of this and then let you guys play some. This is the Allemande from the E-flat French Suite. And back to one eight.

[PLAYS MUSIC]

So you can hear how he uses the low register, but he's also using a steel brise to imitate lute guitar playing from earlier. They were all influenced a lot by Denis Gaultier, who was a lute composer in France earlier. So you know, these are all individual sixteenth notes, but we hold them though to create the chords.

So come try. And ask any questions that you'd like.

PROFESSOR: There's a resonance to the instrument that we maybe don't give it credit for, right? The thing is, harpsichords never sustain. Pianos do. But I think today has belied that, right? There's a sustain to this instrument that we don't necessarily give it credit for.

JEAN RIFE: Right. It really does. This one especially really blossoms in the space, and you can hear that.

[AUDIO OUT]

PROFESSOR: --sound at all? Or can you-- is it different? Do you feel it?

AUDIENCE: Kind of. You [INAUDIBLE].

PROFESSOR: Yeah. So that's why they often play harpsichord as the instrument, right? You all got to try the organ. How's this different? Try again. There you go. You got the lute stop. Right? But until the key actually comes back up, you can't reiterate the sound, right?

And it's a much slower-- if you're used to a piano, you're not going to be able to do it as quickly

as you think, right? Cool. Well, you're in the lute now, so if you go to the right, you'll engage the other sound. There you go.

AUDIENCE: First string's [INAUDIBLE], but then each note-- you don't have to tune each note.

JEAN RIFE: Well, I mean, there are three stops on here, so you'll have three strings for every note.

AUDIENCE: [INAUDIBLE]

JEAN RIFE: I don't know. Piano-- it's much more difficult to tune that. And also, when you're tuning for--

AUDIENCE: It's supposed to be one eight or--

JEAN RIFE: You put one times eight-foot. If you want two times eight or two times eight plus four-foot--

AUDIENCE: Gotcha.

JEAN RIFE: You can do that.

AUDIENCE: Do many people in the baroque [INAUDIBLE]?