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# **Restoration of Circa 1900-1910 Job. Bartholomä Concert Zither**



**Completed by Ron Cook**

**June 2021**

**For Carol Webster**

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## Background

Tens of thousands of concert zithers were manufactured in both Europe and the United States in the late 1800s and early 1900s. There were many shapes and styles, with the number of strings often ranging from 31 to 46.

Carol's 32 string zither is one of the most common styles. Many zithers have lost their manufacturer labels, making it difficult to determine maker and place of origin. Sometimes there are signatures or stamped labels hidden inside, but not that often. Small differences in shape, tooling, styles of bracing, and types of woods used can sometimes give clues as to the maker, but that's a research area that requires many years of study. Museums, like the National Music Museum at the University of South Dakota, are better staffed and equipped to research instrument makers.

Carol's zither has no paper label, but there is an unusual ink stamp. This is the first I've seen like this. Unfortunately, the stamped name is not one I've heard about, and while researching, I can find no existing concert zithers with the same name. Carol suggested the name might be her great grandfather's name and he might have made it. However, it is a professionally made zither, and not one that could have been made as a one-and-only piece. In fact, I have seen concert zithers with very similar decal decorations on the top. That type of decoration would be very hard to accomplish in a home shop.

Bartholomä has been used as a last name in Germany, especially the Bavarian region, but now is more commonly spelled Bartholomew. Bartholomä is also a small town in the hills east of Stuttgart and southwest from Nuremberg. It's very possible this zither could have been made in Nuremberg, which was a major center of concert zither manufacturing in the late 1800s to just before WWI. Some were made there after WWI. Stuttgart also has had some zither manufacturers but is now an industrial city where Mercedes and Porsches are made.

The oval stamp has the following information: Job. Bartholomä on the top, followed by Fuhrun einetimer, then Ludwigenstone 32. Job, with the period at the end, does not seem like a name but possibly an organization.

My research found a jugendorganisation bartholomä (JOB). This means Youth Organization of Bartholomä. Also, Fuhrun einetimer translates to Guide One-Timer. (I have no idea what that means.) And, of course, the last line on the stamp is an address. This stamp might be a school or organization stamp.



The JOB is still around and had an annual concert. Music and the arts seem to be the main thrust of the Youth Organization of Bartholomä.

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## **Valuation**

Many similar zithers show up on online auction sites and prices vary according to condition, style of instrument, and amount (or lack) of decoration. I've seen zithers similar to Carol's go for under \$50, and sometimes for over \$300. Very ornate, larger zithers can go for \$1000 or more. Because of the number of instruments coming up for auction and the variation in prices, valuation is difficult.

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## Day 1: Assessment



On the first day, I always look over an instrument to see how much work is needed to repair or restore it. From the initial photos I received from the customer, the zither appeared to be in decent condition. When I unpacked it, I first noticed that it had been repaired before, but not very well. There was a shrinkage crack on the top that had been filled with glue, and a thin line of coloring was added to try to match the top's color. It was slightly darker. This zither had been played a lot at one time. The fingerboard was worn, and the areas around the tuning pins had paint scratched off by the sharp string ends. The back had a few scratches.

Only one string was missing, and I planned to salvage as many as possible. I think the strings had been changed once before, mainly because they seemed fairly clean and uncorroded.

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## Day 2: Removing Strings & Tuning Pins



On Day 2 I removed the strings. As I mentioned before, the strings were in quite good shape. As I removed the strings one-by-one, I wrapped a piece of tape with the string type and number. I marked the first 12 melody strings with M-1, M-2, etc. The 12 bass strings were marked B-1, B-2, etc. Contrabass, CB-1, etc.

Even though the strings were in good shape, one other melody string broke as I tried to remove it. The tuning pins, however, were quite rusty and would need a good cleaning.

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## Days 3: Some More Assessment



With the strings off, I was able to look inside the zither with an inspection mirror for any additional problems that might show themselves. No internal problems were found.

And with the tuning pins removed, I could see the wear on the surface. Chips of paint were missing, and a small crack was visible.

The top crack was also more visible. This was repaired before with modern glue that was forced into the crack, so I could do no additional work on the surface. I would do a little work on the inside, which I did on the next day.

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## Day 4: Gluing Cleats



I wanted to make sure the top crack would be very stable, so I glued a couple of cleats, small, thin pieces of hardwood, to the underside of the crack.



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## Day 5: Patching & Sanding Sides



To prepare the zither for staining and painting, I lined the top with painter's tape so no paints would get on the rosewood veneer top.

The sides had a few small gouges and scratches that I needed to fill and sand before painting.

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## Day 6: Re-ebonizing Fingerboard



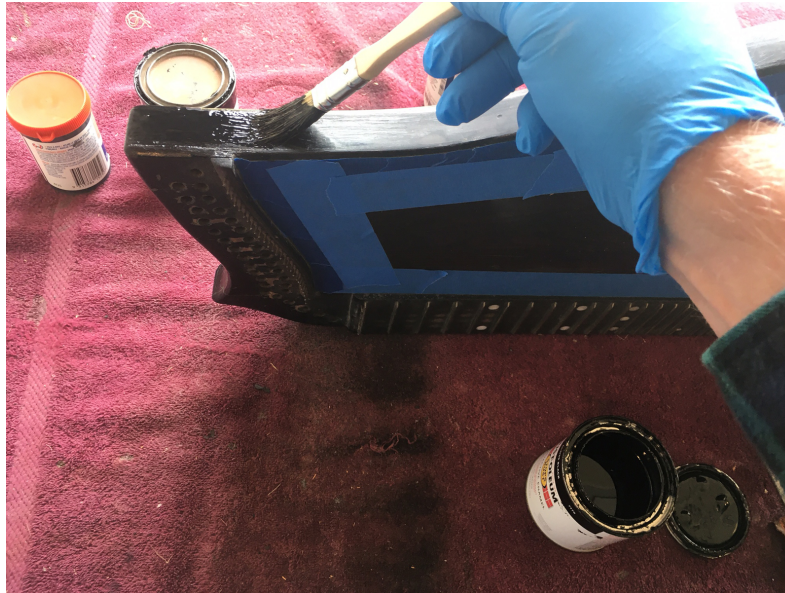
The fingerboard showed a wear from a lot of playing. I've seen this on many of the concert zithers I've restored. It always seems like the first five or six frets were played the most for many years.

I use a water-based ebony stain to re-ebonize the surface. Once dry, I would use a paste wax to polish the fingerboard to look nearly new.

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## Days 7-9: Painting Sides



For the next three days, I painted the sides with a black glossy enamel. It took a while for the paint to dry, but I was able to do two coats during that time.

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## Day 10: Patching & Sanding Back



The back also needed a little patching to fill some small gouges and scratches. For all the patching I do to small blemishes I use a special water-based ebony filler. It dries quite hard and doesn't shrink or peel like many commercial non-water-based fillers found in hardware stores. The filler I use comes in many colors, so I can use whichever color suits the wood I'm working on. Ebony works best here because all the side and back surfaces are black.

After drying a few hours, I can sand the patches flat.

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## Days 11-13: Painting Back



Now that the patching is done, and I've cleaned all the dust off with a tack cloth, I can paint the back. For the next three days I put three coats of a satin (not glossy) black on the back. It seems most zithers, both concert zithers and chord zithers, have backs painted a satin or flat paint, while the sides are often a glossy black. More ornate concert zithers more often have wood veneered sides to match the top veneer.

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## Days 14-15: Painting Top Areas



After the back paint dried well, I turned the zither over and touched up the top pin block and the tail piece. I gave these two coats each.

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## Day 16: Cleaning Hardware



The tuning pins were quite corroded and needed a lot of cleaning. This is a time-consuming process. To clean them, I use one of my rotary carving tools with a fine (120 grit) flap sander. It took nearly three hours to clean the 32 pins.

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## Day 17: Matching Top Color



The top needed a bit of touchup to bring out the beauty of the wood once more. I did a test to see which color stain would replicate the existing top color. I took some of my walnut scraps and painted them with the different stains I have in stock.

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## Day 18: Re-staining Top



The red mahogany was the stain that match the top best. One coat is all it took to bring new sheen to the top. I let the stain dry for a couple of days before continuing with the restoration.

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## Days 18-19: Applying Clear Varnish



After the stain was quite dry, I used a clear wipe-on poly to seal the top. This polyurethane is like the original lacquer but a bit safer to use.

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## Day 20: Touching Up Decal



Where the top crack was previously fixed by someone else, the narrow glue and patch job ran through the decal, blotting out portions of it. Also, the decal had a couple of small pieces rubbed off from years of use.

I have several green and gold touch-up pens that I used to fill in some of the missing pieces.

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## Days 21-22: Starting to Install Tuning Pins



Another laborious part of the restoration process is reinstalling the tuning pins. Often when pins are removed the holes seem to dry more and expand just enough that the pins won't hold the string tension.

To fix this, I use a special liquid that swells the wood. I fill each hole with the liquid and let it soak in for a couple of days. After that, the tuning pins fit tightly.

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## Days 23-24: Stringing



Stringing does take me two days to complete. I often do the fingerboard first, then the first twelve Melody strings. At that point, I give my wrist a rest.

On the second day, I finish stringing the twelve bass strings and the three contrabass strings.

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## Days 25-26: Slight Problem



An ugly problem arose after I string up the zither. The top had pulled away from the side. This problem probably existed before but must have been closed enough so that I hadn't noticed it. With the strings tightened, the opening was more pronounced.

Easy enough to fix. I forced a little glue into the opening and clamped it shut. After the glue dried, I did one more little touch up to finish the zither.

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## Days 27-30: Case Work



I really wanted to fix the zither's case a little. I did not have any material I could have used to recover it, but I did want to stabilize it. The wood on one side of the back had come apart. A glue joint had failed. If I didn't fix this, the whole bottom could have eventually fallen out. So, I forced glue into the joint and clamped it down.

After that dried, I used some white glue under all the paper cover that was peeling off so that no more could come off. Next, I used some water-based black stain to paint over all the paper and exposed wood. This fix will help keep the restored zither safe.

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## Day 31: Completed



I always enjoy the challenge of restoring or repairing zithers. Every instrument is different and it requires quite a bit of thought and research to complete the task. Even though I'm not sure the actual maker of this zither is the name on the stamp, this zither is a fine example of German craftsmanship.

I find it very satisfying to be able to keep antique and family heirloom musical instruments in working order for future generations to enjoy.

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# Concert Zither String Diagram

## Munich Tuning

There are two zither stringing formats in use today: Munich and Vienna. Munich is the most commonly used because it incorporates every note in the chromatic scale encompassed by the scope of the instrument. The stringing pattern on the fretboard is like the violin family, a fifth apart. The open strings are in the circle of fifths, broken between Eb and Ab and laid flat on the zither, similar to an accordion layout.

**Fretboard**  
**Munich Tuning**

a-440 - tuning fork or digital tuner

**Accompaniment Strings 1-12**

Eb 1    Bb 2    F 3    C 4    G 5    D 6    A 7    E 8    B 9    F# 10    C# 11    G# 12

**Bass Strings 13-24**

Eb 13    Bb 14    F 15    C 16    G 17    D 18    A 19    E 20    B 21    F# 22    C# 23    G# 24

**Contra Bass Strings 25-37**

F 25    E 26    Eb 27    D 28    C# 29    C 30    B 31    Bb 32    A 33    G# 34    G 35    F# 36    FF 37

In addition to the basic 29 fretboard, accompaniment and bass strings, zithers may have 2, 3, 5, 7, 9 or 13 contra bass strings - the full harp zither has 42 strings (5 fretboard and 37 open strings). In some early versions, and on perfecta zithers, the contra basses were arranged in the same circle of fifths as the accompaniment and bass strings. Munich tuning was often expressed in treble clef (violin key, or similar to guitar clef) but today is mostly written in bass clef.