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Music Cultures of the World

5/27/2025

Final Project

Building an Mbira

Introduction

Why I chose to build an Mbira

When looking through the instruments covered in the class, most require very tactile fingers and wrists to play. After a forearm injury, quite a few surgeries and a tendon transfer, I don't have those. The Mbira only requires thumbs to play, which works amazingly well for my needs. I was a bit concerned about trying to make one myself because it looks quite complex to get right for someone with little background in craftsmanship. Here's how it went, but first...

What is an Mbira

The Mbira is a traditional African instrument that dates back over a thousand years, primarily associated with the Shona people of Zimbabwe. It's often called a "thumb piano" because it's played by plucking metal tines with the thumbs while the instrument rests in the hands. The Mbira has deep spiritual roots and is used in ceremonies, storytelling, and community rituals. Over time, a simplified version called the Kalimba was developed and popularized by a European ethnomusicologist named Hugh Tracey in the mid-1900s. The Kalimba kept the basic thumb-plucked design but was tuned to fit in with the Western musical scale and built with a more standardized layout, making it easier for global audiences to learn and play. Kalimbas are often seen in casual music or meditation settings, and they carry the same spirit and general structure of the Mbira.

The building process

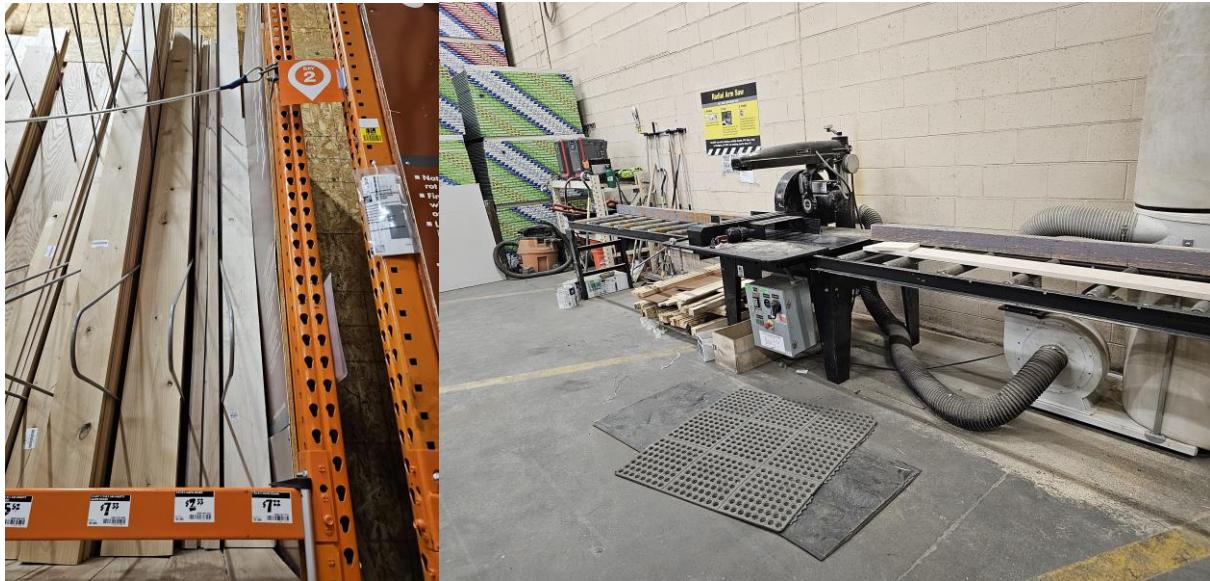
I knew from almost the beginning of the class that this was the project I wanted to build. The real challenge was more the fact that I've never really tried to build anything like this before. What kind of wood do I use? What do I use for the tines? How do I build the contraption that keeps the tines in place? Will it even make a sound if I build it? I started searching online for what to use for the tines and came across this Kalimba repair kit on Amazon:



This took a lot of guesswork out of the project. The tines and contraption holding them in place would at least be reasonable. It was just a matter of finding reasonable wood, sanding it, shaping it, staining it, and successfully constructing it. The process is really time consuming as well, because of how long staining and gluing takes so I didn't have many chances if it didn't turn out well.

I did a bit of research and settled on using hardwood maple for the wood. It's accessible, durable and transmits vibrations well in Mbira style instruments. The only problem is that hardwood maple can be notoriously difficult to stain properly.

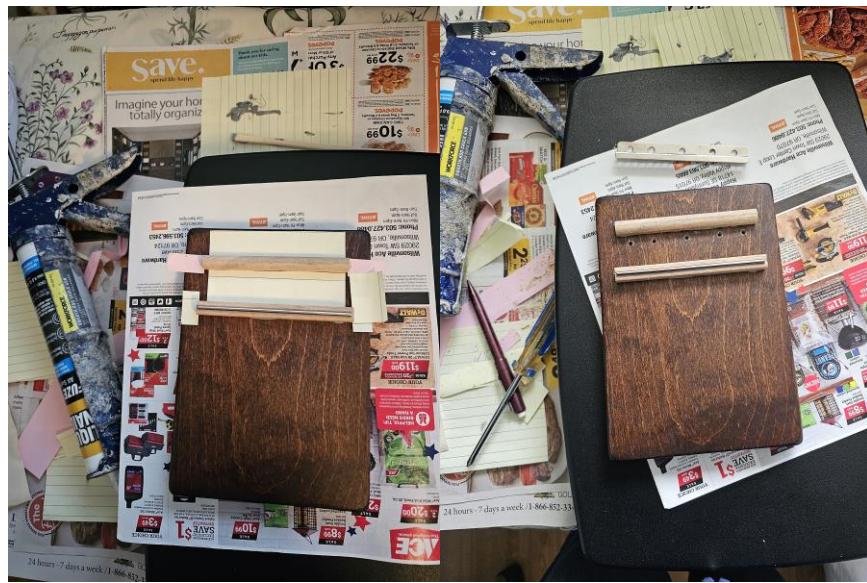
So, I headed out to Home Depot to get the wood I needed.



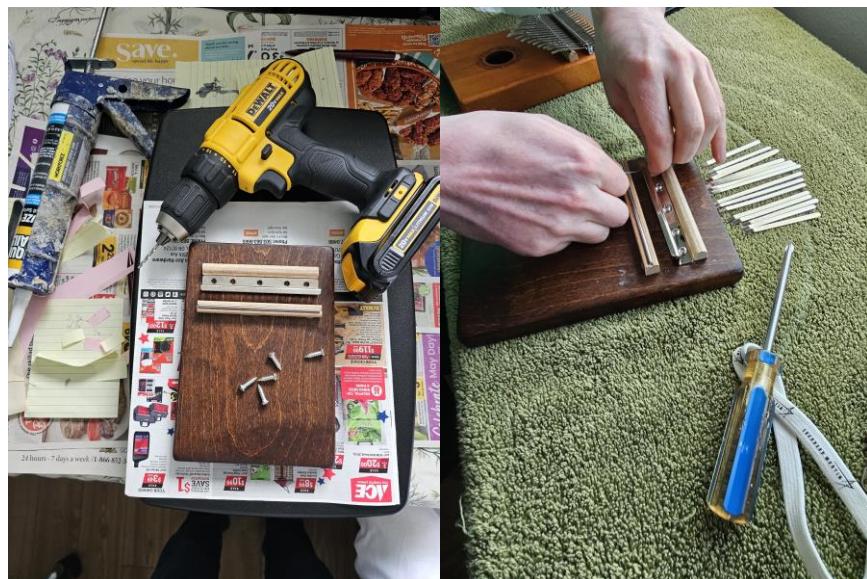
Since I don't really have a lot of good tools, I had them cut the wood to the correct size in the store for me. Then I brought my newly purchased block of maple home and started the process of sanding and shaping it. After I was happy with the result, I made a place in my garage and started the process of staining.



After a little cleanup to make it as nice as possible, I started the gluing process. I used the prototype cheap Kalimba I bought on Amazon as a reference.



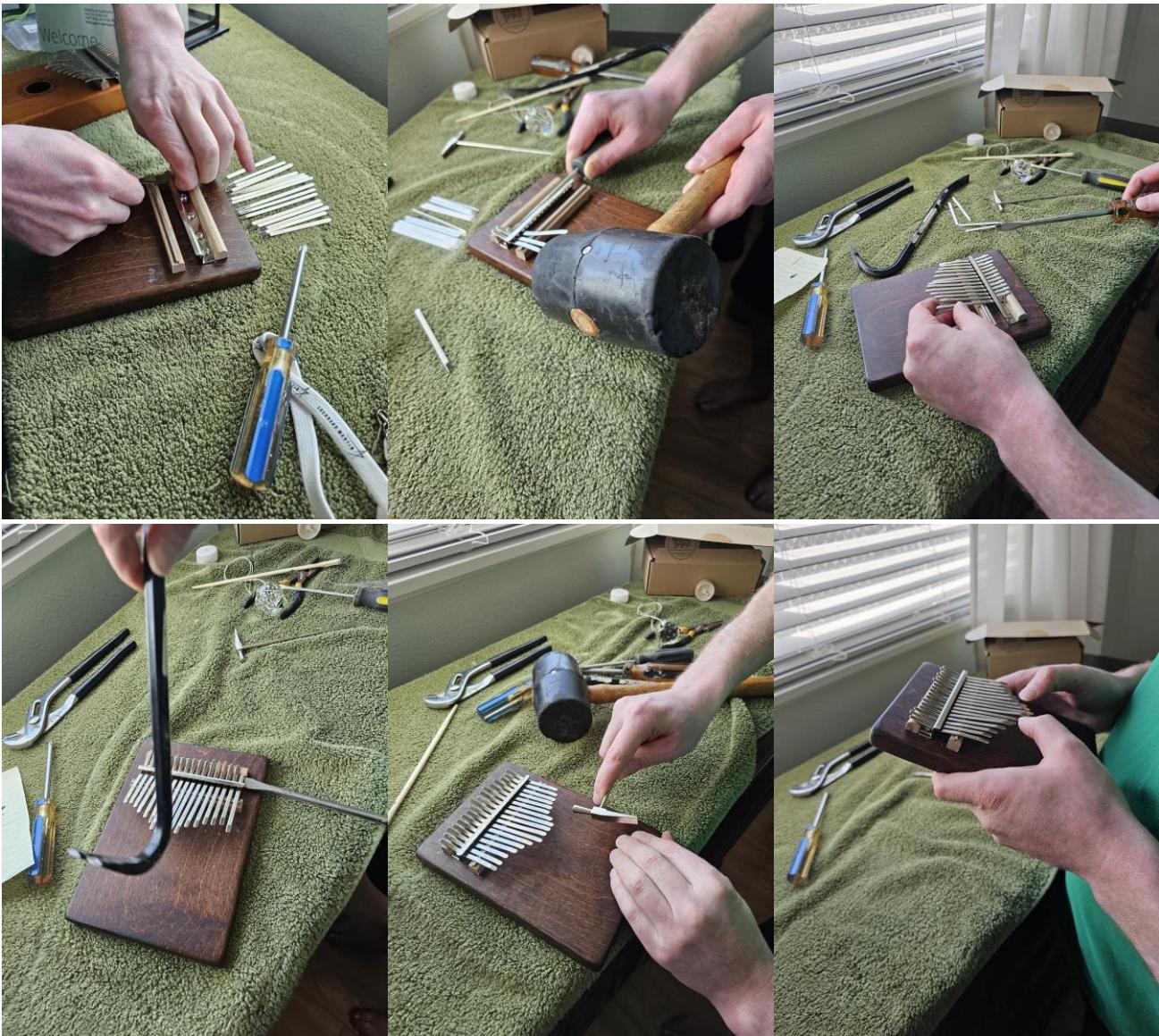
Once the glue had a few days to properly set, I carefully marked and drilled the holes for the metal part that holds the tines in place. With the holes drilled, I screwed the metal part down and secured it.



Contraption in place, now it was just a matter of getting the tines in properly without damaging anything. This was a process, since I'm 100% positive I didn't use the correct tools (mostly just bashing with whatever I could find 😅). Somehow, I managed to get everything installed without damaging anything.

I probably spent 2 or 3 hours just trying to tune it because I've never tuned anything before. I've listened to so much music that I can tell when it's wrong, but with no experience, it's hard to know how to fix it.

Instead of forcing it into a Western musical scale, I decided to keep its natural deep tone and let each tine sound unique. This feels more like how traditional mbiras were originally created, tuned by ear and feel, not for Western sheet music. I'm pretty happy with the result, but it still needs a bit more work to get a completely fluid sound.



Conclusion

I think it turned out great considering I haven't really done much craftsmanship since some grade school projects. The repair kit was a smart choice that made the project a lot more manageable. I actually finished a project that's a real instrument I can play, not just a piece of wood with a bunch of spikes sticking out of it. It was pretty fun to plan it out and problem-solve through everything that came up. I started about a month ago and just finished yesterday, so I'm glad I didn't procrastinate, or I could've been in trouble. The whole process made me appreciate what the Shona people 1,000 years ago had to go through to make something like this. Overall, I'm very happy with how it looks, and I'm overjoyed that it works.