



Landfill Rhythms

Jayson Caissie, Christopher Levin, Timothy Stecko, Jingxu Wang Advisors: Dr. Martin Burt, Professor Svetlana Nikitina, Jack Yebba

Abstract

We developed an instrument for the H2O Orchestra made from common pollutants of the Paraguay River. This not only provides the orchestra with a new instrument, but also gives young members an alternative to crime, violence, and drugs.

Problem

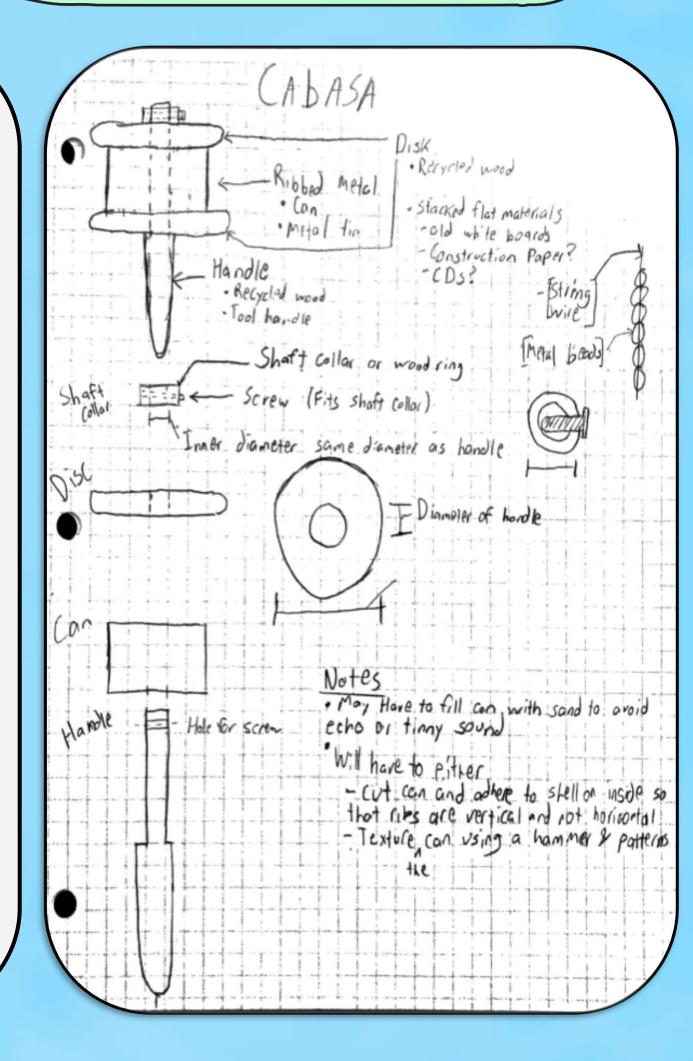
Cateura is a slum built up top of a landfill. Many of its residents scavenge for materials to sell, often pulling their children out of school for help.



https://www.flickr.com/photos/34873739@N02/14208259857

Project Goal

- Create instrument
 plans to be replicated
 with the tools and
 materials available in
 Cateura
- Get the children to be interested in learning and playing music
- Educate the public about reducing water pollution and conserving aquatic ecosystems

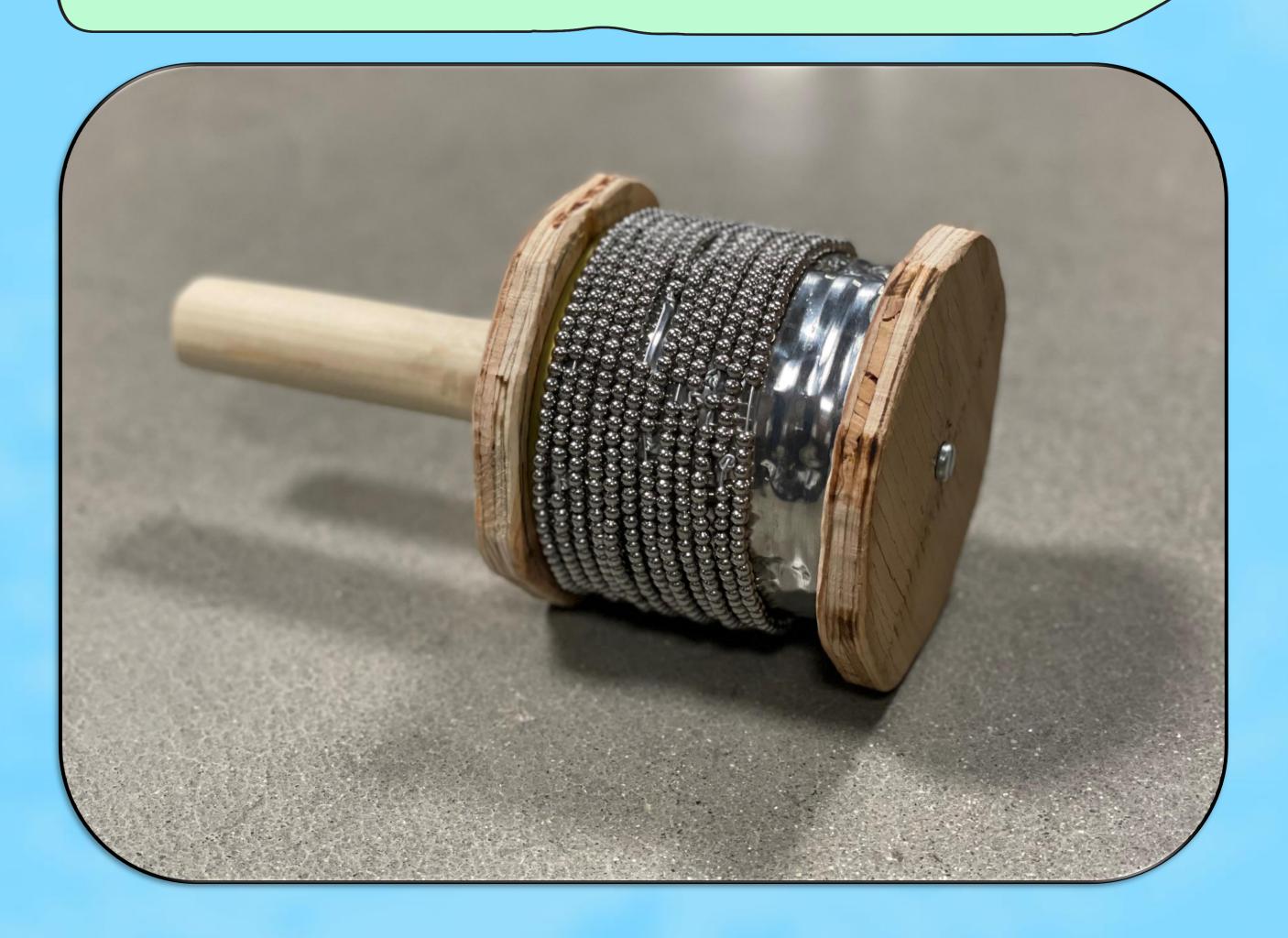


Orchestra



https://www.flickr.com/photos/43931004@N08/8785882324

Instrument



Materials & Tools

- Plywood
- Metal/Plastic Beads
- Screw
- Tin Can
- Metal Wire
- Bandsaw
- Belt sander
- Hammer
- Dremel
- Sandpaper

Procedure



Measured and cut tops and bottoms of cabasa

Created a handle and smoothed the edges of the discs





Threaded beads and assembled the cabasa



disc to the handle and the can to the upper disc

Conclusion

Over the past 6 weeks, our team designed and manufactured a cabasa out of scrap materials. It will be sent to the Recycled Orchestra of Cateura to give the children an opportunity to learn and play the new instrument. The plans will be sent so more cabasas can be manufactured in the future. This cabasa will add more variety to the types of music the orchestra can play such as traditional Latin American music, which includes different types of percussion.

Acknowledgements

We would like to thank Professor Svetlana Nikitina, Jack Yebba, Dr. Martin Burt, the WPI Collalab, and the WPI ATC for making this possible

Selected Bibliography

Biografía." *Orquestra De Reciclados De Cateura*, Favio Chávez, 2014, https://www.recycledorchestracateura.com/the-band.
Sioulcas, Anastasia. "From Trash to Triumph: The Recycled Orchestra." *NPR*, NPR, 14 Sept. 2016, https://www.npr.org/sections/deceptivecadence/2016/09/14/493794763/from-trash-to-triumph-the-recycled-orchestra.
Davies, Richard. "Paraguay Floods – Asunción Faces Environmental Disaster as River Threatens to Flood Toxic Dump." *FloodList*, Copernicus, 4 July 2014, https://floodlist.com/america/paraguay-floods-asuncion-faces-nvironmental-disaster-river-flood-toxic-dump.

Kebe, Djibril. "Orchestra H2O Sounds of Earth Named UNESCO Artist For Peace." *UNESCO*, UNESCO, 12 Feb. 2016, https://en.unesco.org/news/orchestra-h2o-sounds-earth-named-unesco-artist-peace-0.
Sachdev, Ailsa. "Landfill Harmonic: Making Music out of Trash." *The Green Life*, Sierra Club, 3 June 2013, https://sierraclub.typepad.com/greenlife/2013/06/landfill-harmonic-movie-making-music-out-of-garbage.html.