Fall 2016

Scorched Earth Crocodiles

Guangchen Zhang

University of Iowa

Follow this and additional works at: https://ir.uiowa.edu/honors_theses

Part of the Metal and Jewelry Arts Commons

Copyright © 2016 Guangchen Zhang

Hosted by Iowa Research Online. For more information please contact: lib-ir@uiowa.edu.
SCORCHED EARTH CROCODILES

by

Guangchen Zhang

A thesis submitted in partial fulfillment of the requirements
for graduation with Honors in the Art, Studio

Kee-Ho Yuan
Thesis Mentor

Fall 2016

All requirements for graduation with Honors in the
Art, Studio have been completed.

Kee-Ho Yuan
Art, Studio Honors Advisor

This honors thesis is available at Iowa Research Online: https://ir.uiowa.edu/honors_theses/
When I went to the bookstore last summer, I found a book about metal clay jewelry. There are many examples and tutorial about how to make jewelry with metal clay which I have never seen or done before. For my honors project, I wanted to study metal clay and explore the uses of this form of metalwork in rendering a 3D animation figure of a crocodile. However, as I began my project, my instructor felt it would work better to learn how to make a mold to create the crocodile. I choose to create a crocodile because I was inspired and influenced by the character Renekton in the video game called League of Legends. When I first came to America, I was alone and helpless. However, I made some friends and became outgoing and optimistic by playing League of Legends. Renekton is a hero and most honored warrior in his country and he protected his country, during wartime. I was encouraged by his brave and strong, so I decided to create a crocodile to remind me and encourage me to be courageous later in life.

Because I didn't have an actual crocodile mold for casting, I used clay to form the basic form of the crocodile. When the clay was hard, I fixed the crocodile on a 4X4 wooden board with hot glue gun. To make the rubber mold, I cover the model with plastic wrap and then 1/4" clay. Then I covered the clay with plaster to create a plaster jacket which helped me hold the mold. After the plaster jacket had cured, I opened the jacket and removed all the clay inside of the jacket. Since the crocodile has too many undercuts and a huge tail, I had to build two parting lines to divide the jacket into three parts. After the plaster dried, I drilled a hole at the top of the jacket and three small holes at each piece. Before I poured the rubber in the jacket, I tied the jacket with a belt and secured all gaps with clay. However, I overlooked two important facts, one, that the pressure is higher at the bottom than the top and second, my piece is too big. When I poured the rubber into the jacket, the rubber started to run out. I had to wait for all rubber run out and dry which took about one day. I cleaned the surface of the crocodile and re-poured the rubber into the jacket. I made the crocodile in a solid plastic to bear the weight of the heavy metal armour and the blade. After the figure was complete, I made the jacket with paper first. Then I drew all the paper armour on one piece of brass, which I sawed and soldered to form the metal armour. To show his ruthlessness, I painted the armour in black and the blade point in blood red. I also painted the crocodile in green and red with oil paint.

I enjoyed the process of making the crocodile, and I have learned how to make a silicone rubber mold and how to cast a plastic object. Since I have a silicon mold, I can now explore making more crocodiles in differing styles. I enjoyed this project and in the future, I plan to look for a job that involves making molds and models for characters or objects.