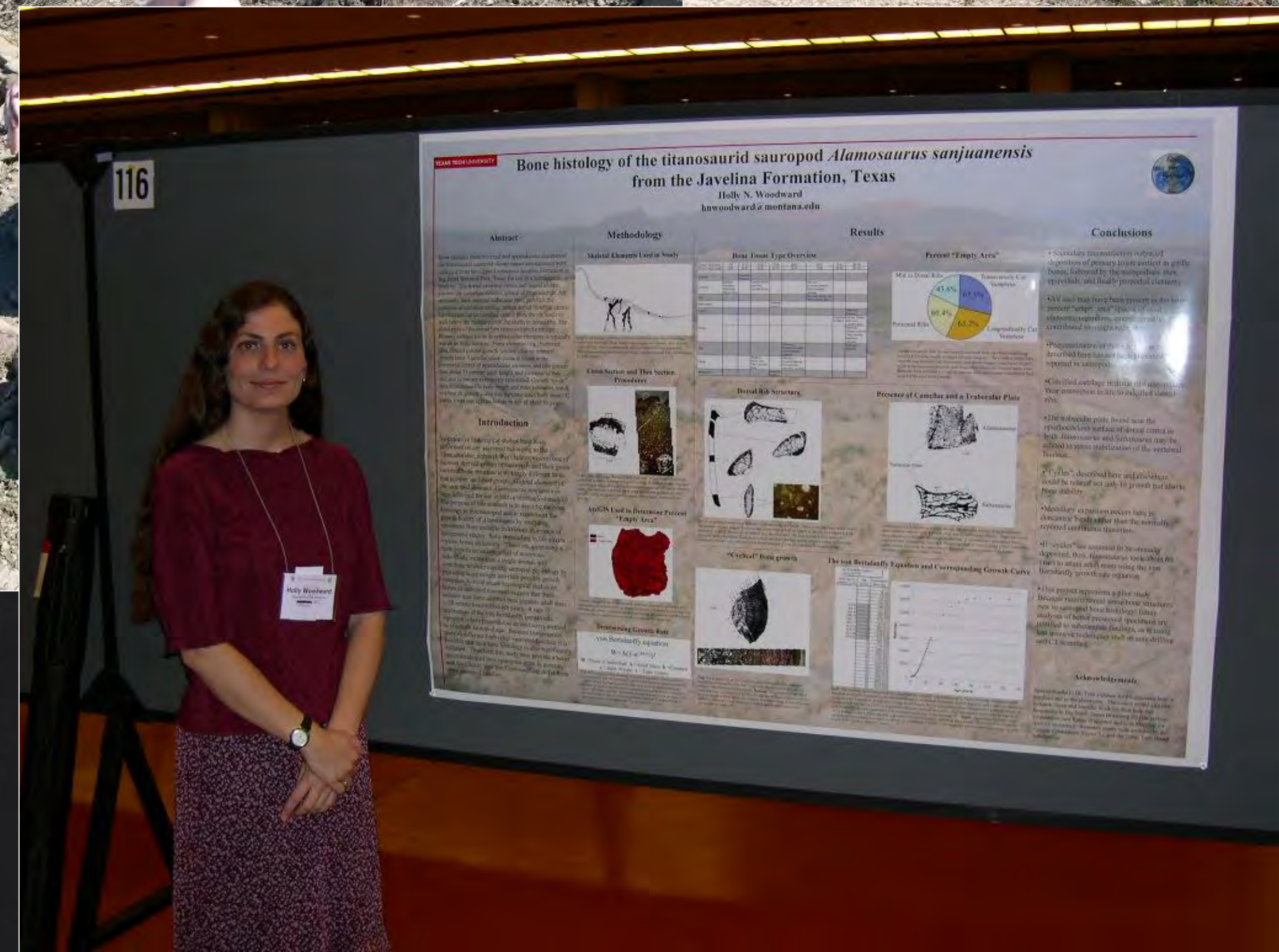


First real fieldwork in Big Bend for my Master's project

I presented my results at a conference filled with people like me



**Bone histology of the titanosaurid sauropod *Alamosaurus sanjuanensis* from the Javelina Formation, Texas**  
Holly N. Woodward  
hwoodward@montana.edu

**Abstract**  
Titanosaurid sauropods are characterized by their exceptionally large size and unique body plans. However, the internal structure of their bones, particularly the vertebrae, remains poorly understood. This study examines the bone histology of a titanosaurid sauropod, *Alamosaurus sanjuanensis*, from the Javelina Formation, Texas. The study focuses on the vertebral centra, which are the central part of the vertebrae. The results show that the vertebral centra of *Alamosaurus* have a unique bone histology, characterized by a high degree of vascularization and a distinct pattern of bone growth. This suggests that *Alamosaurus* may have had a unique mode of locomotion or a specialized diet.

**Introduction**  
Titanosaurid sauropods are a group of large, long-necked dinosaurs that lived during the Late Cretaceous and Early Tertiary periods. They are characterized by their exceptionally large size and unique body plans. However, the internal structure of their bones, particularly the vertebrae, remains poorly understood. This study examines the bone histology of a titanosaurid sauropod, *Alamosaurus sanjuanensis*, from the Javelina Formation, Texas. The study focuses on the vertebral centra, which are the central part of the vertebrae. The results show that the vertebral centra of *Alamosaurus* have a unique bone histology, characterized by a high degree of vascularization and a distinct pattern of bone growth. This suggests that *Alamosaurus* may have had a unique mode of locomotion or a specialized diet.

**Methodology**  
Skull Elements Used in Study  
Vertebral Centra  
Dorsal Rib Structures  
Anterior View  
Posterior View  
Lateral View  
Medial View  
Dorsal View  
Ventral View  
Superior View  
Inferior View  
Anterior-Posterior Section  
Medio-Lateral Section  
Superio-Inferior Section  
Dorsal-Ventral Section  
Medio-Lateral Section  
Superio-Inferior Section  
Dorsal-Ventral Section

**Results**  
Bone Tissue Type Overview  
Percent "Empty Area"  
Percent of Canaliculi and Trabecular Plate  
"Critical" Bone Growth  
The von Kries Equation and Corresponding Growth Curve

**Conclusions**  
The vertebral centra of *Alamosaurus* have a unique bone histology, characterized by a high degree of vascularization and a distinct pattern of bone growth. This suggests that *Alamosaurus* may have had a unique mode of locomotion or a specialized diet. The results of this study provide a new perspective on the internal structure of the vertebrae of titanosaurid sauropods and may help to clarify their mode of locomotion and their relationship to other groups of dinosaurs.

**Acknowledgments**  
I would like to thank my advisor, Dr. [Name], for his guidance and support throughout this project. I also thank the staff of the [Institution] for their assistance and the [Funding Agency] for their financial support.

Then on to  
Montana State for  
my PhD!



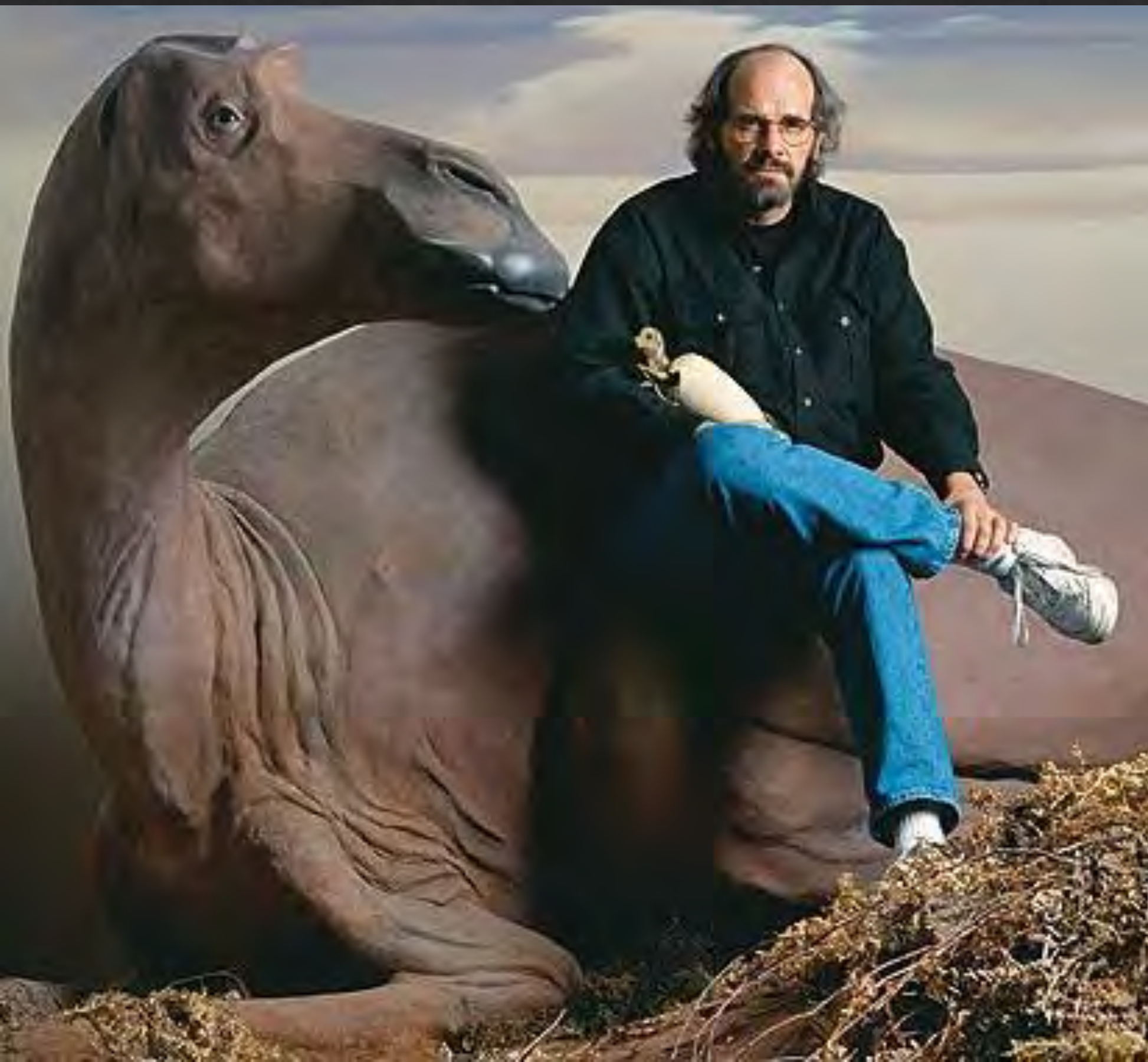
And on to *Maiasaura*!

This area is popularly called “Egg Mountain”



The bones of *Maiasaura* had been collected from the same bonebed over a period of 40 years

My work on *Maiasaura* added to what Jack started



Graduation!

...now what?



# Paleontology provides unique employment opportunities



# Paleontology showed me the world



 **CR2P** Centre de recherche en paléontologie - Paris  
UMR 7207



# Playing it forward





# Playing it forward



# Playing it forward



The key to all of this? For me, someone “in my corner”

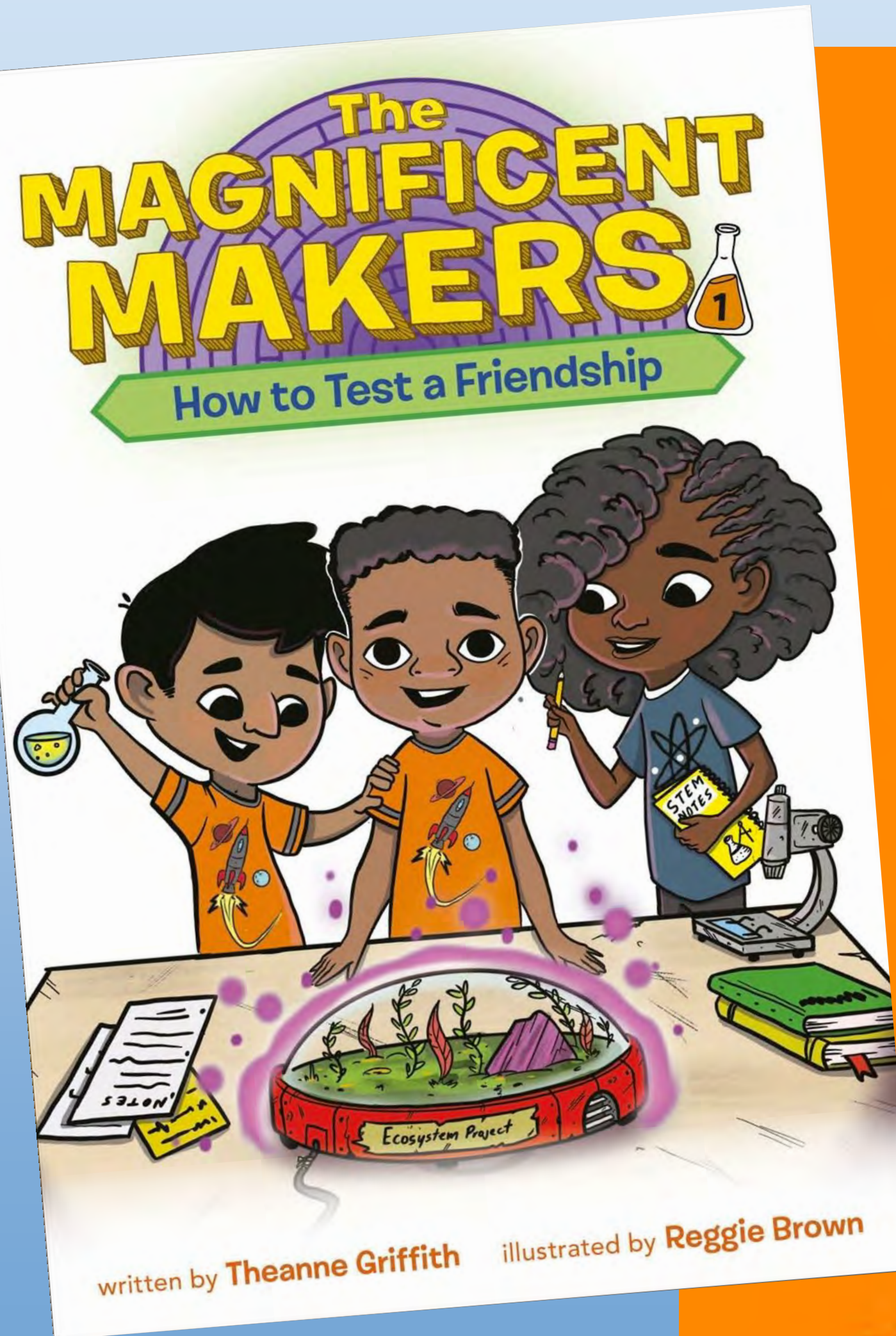


The key to all of this? For me, someone “in my corner”



Photo by Christian Heck

# Books as a Platform for Integrated Science Adventures!

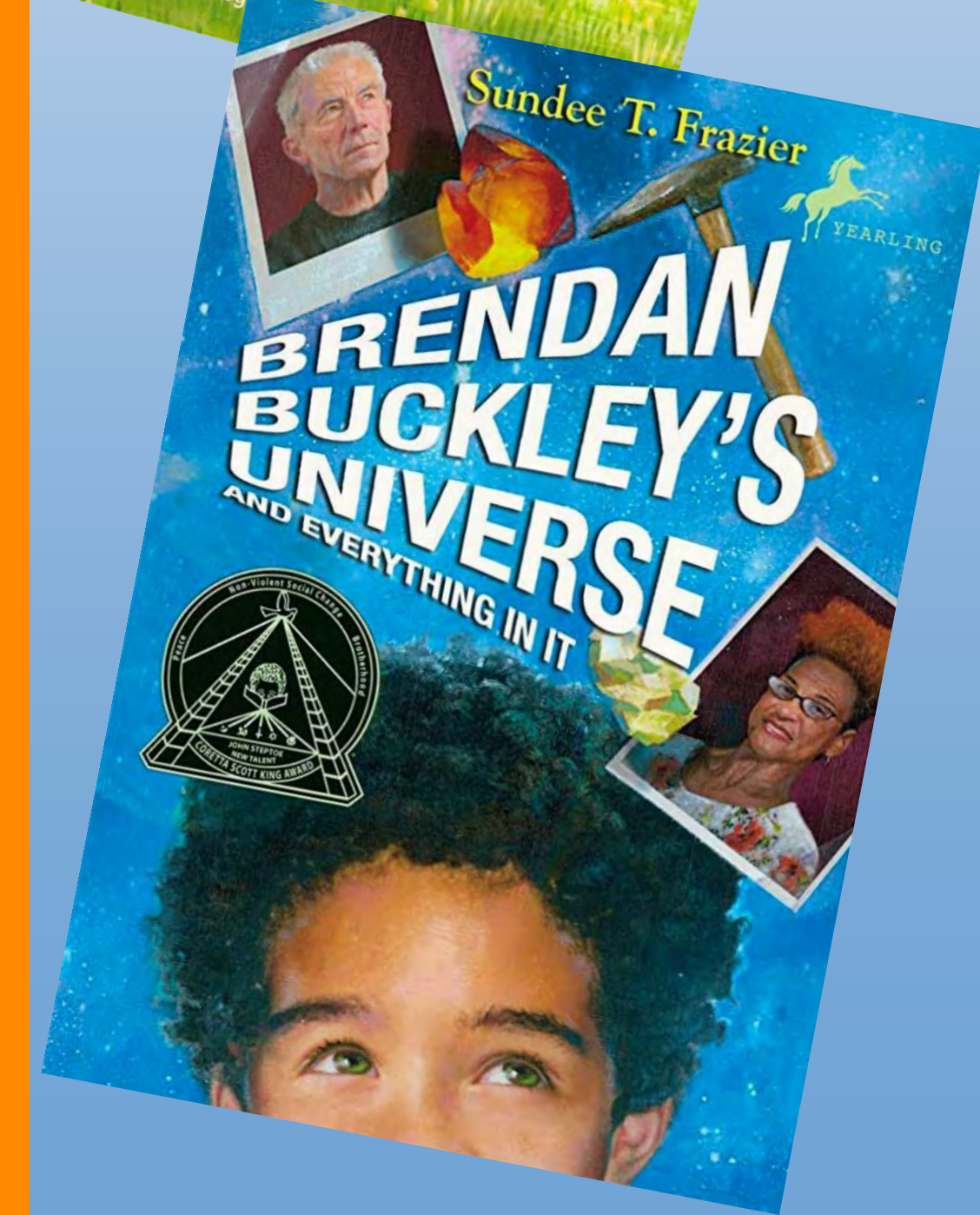


## LILY AND MAIA



## A DINOSAUR ADVENTURE

BY JACK HORNER | ILLUSTRATIONS BY GRACE HATTRUP



# The Library Garden Dig Site



