

Fossil Preparation Laboratory and Field Techniques

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Fossil preparation plays a critical role in paleontology. It involves recovering fossils from the field, repairing and cleaning damaged specimens, and creating supports and samples for museum exhibits. All techniques and fossils were provided by the Natural History Museum of Los Angeles County. After the fossils are extracted from the field, preparators must carefully protect the specimens from further damage during transportation to the museum or institution. Once in the lab, fossil preparators must ensure that the fossils are documented and stored for future research and preparation. Techniques used in this research consisted of jacketing samples to reinforce fossil structure for transport and storage, zip scribing which removes the fossil from the originating rock matrix, using Paraloid B-72 glue to consolidate pieces of fossils, and reinforcing the stability of fossils with sculpting putty. Other research was conducted such as investigating outdated fossil preparation techniques, exploring other methods of preparation, as well as finding other uses for the materials. By researching existing fossil preparation techniques used in museum labs as well as in the field, we can enhance efficiency and improve upon fossil stability and support used in modern vertebrate paleontology. Fossil preparation techniques are slow to evolve but often result in safer tools and chemicals used, as well as providing new uses for previous materials. This research utilized museum techniques that are essential for fossils found in solid substrates and require more intrusive methods of extraction. However, different methods are needed to extract fossils depending on where they are located.