Bones

Story of a Bone

Forensic Science for Dinosaurs

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Excavation techniques change with time. Paleontologists used to focus only on the bones.

Surrounding sediments were ignored. Modern paleontologists, like modern forensic scientists, know that everything around a specimen is a potential clue.

The position of the bones may indicate the direction of flow of an ancient stream. Surrounding rock may contain ancient soil features, pollen, chemical "fingerprints," skin impressions, gut contents, and many other clues. Paleontologists are careful to investigate all of the clues that may teach us about the fossil and the history of its environment, from the time it was buried until today.

EXCAVATION PROCESS

1. Remove overlying rock and expose the fossil.
2. Apply special glues to consolidate the fossil and to prevent loss of smaller fragments.
3. Surround the fossil with a protective "field jacket" made of burlap and plaster, and dig away the surrounding rock.
4. Transport field jacket with the fossil to the paleontological laboratory.
5. Prepare the fossil by removing surrounding rock, or "matrix," and by reattaching small fragments with special glues.
6. Curate in a museum where the fossil, associated clues, maps, notes, and important information may be studied and used to reassemble the puzzle.