The Huge Job of Building Dino Models

Meet Peter May. He heads up Research Casting International, a Canadian company that makes dinosaur models for museums like Toronto's Royal Ontario Museum and the American Museum of Natural History in New York. Check out how May and his team created this Chasmosaur for the Canadian Museum of Nature in Ottawa.

1. An artist and a paleontologist (dinosaur expert) use dinosaur bones to figure out what the Chasmosaur would have looked like when it was alive. Then the artist makes a maquette — a small version of the final sculpture.

2. The team members, called “fabricators,” use the maquette as a model for carving a life-size sculpture out of styrofoam.

3. They put clay on the styrofoam sculpture and then sculpt details like wrinkles, scales, and teeth into the clay, using teeth and skin fossils as guides.

4. The team makes moulds for different parts of the Chasmosaur by brushing three layers of green liquid rubber onto the clay.

5. When the rubber is dry, fibreglass is added to stiffen the rubber mould so it will hold its shape (see dinosaur head). Then the mould is carefully removed.

6. Next, the team makes the final sculpture or “cast” by painting the inside of the mould pieces with a layer of plastic, followed by more fibreglass to hold everything together. When they’re dry, the casts are removed from the moulds.

7. Then it’s like putting together a giant jigsaw. Using the maquette as a reference, the team puts the pieces together to form a sturdy dino model.

8. The seams are covered with paste and sanded to make them smooth.

9. Finally, the Chasmosaur model is painted. When it’s dry, it’ll be ready to rumble off to its new home at the Canadian Museum of Nature.

Dig These Dino Facts

- A Chasmosaur model weighs 450 kg (1000 lbs), about the weight of a horse.
- To make the models seem life-like, each scale must be carved individually in the clay. Model dinos have more than 30,000 scales!
- It takes about three months and a team of seven people to build a dino model.
- May and his team have also built T. Rex skeletons for Disney World in Florida and for the movie Jurassic Park.