

# The Bristol Pliosaur

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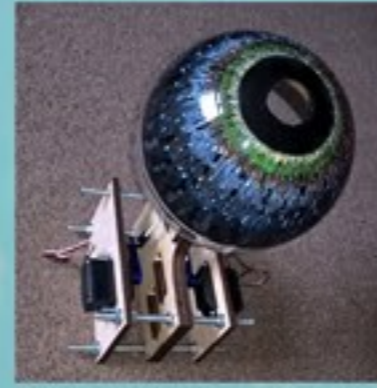
1:1 scale interactive Pliosaurus carpenteri for Bristol Museum & Art Gallery

Initially, a 1:16 scale maquette was made, then scanned to produce a 3D file. The 1:1 scale replica was then CNC milled from this file in fire retardant, high density polystyrene.

An aluminium endoskeletal truss was fitted to allow for removable flippers, ceiling and floor anchor points, a sound system, and animatronics. The eyes were fitted with a face recognition camera, and mounted on a gimbal to allow her to track people around the room; a motion sensor was placed in her jaw so that she growled if

visitors got too close to her wounded mandible. A deep heartbeat was also recorded, which could be heard at close range. Odour sachets were placed in an enlarged nostril cavity to give her bad breath.

The surface was coated in semi-rigid polyurea, which is both extremely durable, and more realistically textured for a leathery/fine scaled animal than glassfibre. The skin was painted to show countershading, as well as a signature pattern based on a variety of extant animals.



For installation, a double goal-post style truss was erected in the museum, and the model was suspended from it with shoulder and hip anchor points. The left front flipper was fixed to the floor, and the right rear flipper was attached to the truss for stabilisation. Artworking was done in situ, including the addition of a wound sculpted from silicone to show the position of the fused, infected bones recovered from the fossil itself.

Curved 'infinity walls' were erected to create an underwater illusion with digital projections of Ichthyosaurs and Belemnites, and an overhead projector installed to cast the effect of sunlight dappling. The final tally for the 8 months of interactive exhibition was over 75,000 visitors. The model is now permanently displayed hanging from the ceiling in the rear hall of the museum.

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Animatronics: Brendan Arnold & Emma Powell  
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Foley Recording: Jon Birch  
CG Sculpting, Modelling & Animation: Damir G Martin

