Last year Jason Jacques Gallery partnered up with the world renowned gem, mineral, and fossil specialists at Granda Gallery for a barrier smashing mashup of design and natural objects when we rented the Prairie House across from Art Basel for a week of rave-reviewed events— and we thrilled to announce another Jason Jacques Gallery × Granada Gallery collaboration in Miami.

All of history's greatest designers have sought out the most interesting and provocative of natural materials, from the gems and precious metals used by the Wiener Werkstatte to the teams of scouts Jacques Emile Ruhlmann sent to the jungles to source rich woods.

Beyond a shadow of a doubt, Nature is the greatest artist and designer of all— the single, originary force whose influence we cannot escape.

We want to provide an opportunity for visitors to the fair to see incredible prehistoric relics in person. Nature, though it's mysterious and much-studied processes, inadvertently produces striking designs: incredible forms with incredible functions. Thus, it is no coincidence that much of the work in the hall surrounding these creatures directly or indirectly references the natural world. It is also no coincidence that at this time in human history we are looking to Nature for inspiration more than ever.

Good design does not end at individual objects— it extends to every aspect of an environment, whether it's a living or working space, public or private, indoor or outdoor. It follows that the idea of Nature as something separate or remote from daily human life is a fallacy; a natural object is just as much at home in your living room as it is in your garden.

We hope that begins to answer the question about why we brought dinosaur fossils to Design Miami. A similar question was asked a few weeks ago when "Stan" the Tyrannosaurus sold for $32 M at a Christie's 20th century evening sale. Critics of cross-pollination between collectable fields of interest used to feel this way about cars too— but we're moving into the future rather than fixating on past distinctions. Are great car designs not sculptures? You decide. Virgil Abloh, after all, been making a compelling argument for the sculptural status of handbags (which most people consider strictly to be design objects) since 2017.

We already have our opinion firmly squared with the market's obvious answer.

A fossilized, juvenile (which is to say apartment-scale) Allosaurus skeleton is a rare find. Looking at it ought to fill even the most ardent stoic with the heady nostalgia of childhood wonder: it is a very literal glimpse back through time.

These two dinosaurs on display depict a hunting scene between a juvenile Allosaurus and full grown Camptosaurs. The Allosaurus, a rare find since it's a juvenile, is playing its usual role of predator. The Camptosaurus, cast as the prey, is especially notable for its perfectly preserved skull— likely the most complete skull of this species ever found. They both lived about 154 million years ago and roamed the same habitat, the geographic region now known as Wyoming.

Though they are essentially North American animals native to what we now consider the Western United States, this pair of once-living objects date to the Jurassic period. They moved through a vastly different land and inhabited a world which would be unrecognizable to us; properly speaking, the post-Pangea landmass could not even be called North America.

We would do well to note that fossilized remains do not consist of bones themselves. They are made of stone, which over the course of tens of thousands of years replaces bone through a process called mineralization. This mirrors, curiously, a broad and ongoing line of questioning in the field of design regarding the multiplicity of forms a given material can take.

All things considered, they are a monumental reminder of time's passing. To consider them alongside these other objects is to acknowledge that we, and those environments which we create for ourselves, are spatially and temporally linked not only to human history and pre-history, but to the richly interconnected world around us.

Camptosaurus
Upper Jurassic (154 my)
Found: Morisson Formation— Wyoming, USA.

The skeleton consists of 80% original bones and is remarkable due to its skull, which is 95% complete - probably the best preserved skull of this species ever found.

The dinosaur stands 12 feet 3inches long, 4 feet 6 inches high, and 3 ft wide.

$ 1.2 million

CAMPTOSAURUS: THE SPECIMEN

This dinosaur is a single individual found in Albany County (Wyoming, USA). It is dated to the Upper Jurassic (154 My) and was found in the Morrison formation. The skeleton is 80% complete and is remarkable because of the its skull which is 100% complete— probably the most complete skull of this species ever found. It is 3.76 m long (12’3 ft), 1.40 m high (4’6 ft) and 0.94 m wide (3 ft). It comes with a customized black wooden stand that covers the metal frame. The total height is therefore 2.0m (6’6 ft), 3.76 m long (12’3 ft) and 1.20m wide (3’9 ft).

The Camptosaurus was a small to medium-sized dinosaur, usually less than twenty feet in length. lt seems likely that the Camptosaurus was not a particularly fast runner. however, it undoubtedly used the long hind legs to escape attacks from the large carnivorous dinoaurs. such as Allosaurus. The Camptosaurus would revert to the quadrupedal method of locomotion. using the fused wrist bones as support, when it was moving about slowly to feed on ferns, liverwort and other plant life.

The front limbs were designed for bearing weight rather than as arms for grasping. like those of most camosaurs. As far as, the hips were concerned, the pubis had a very long. narrow posterior rod, which reached the end of the ischium. ln later iguanodontids, the posterior rod of the extended pubis only about half way down the ischium. The lower jaw of this dinosaur was somewhat shorter than the length of the skull. because of the forward and downward extension of the quadrate bone on which the lower jaw articulated. Because of the ventral extension of the quadrate, bony palate dividing the mouth from the passages that let nasal air travel to its lungs, prevented suffocation while Camptosaurus ate.

While it did not have the fully developed spiked thumb of other iguanodontids, Camptosaurus did have the iguanodontian feature of small hooves on both its fingers and toes, indicating that it easily walked on all-fours. The hind limbs were large and strong. The tibia never exceeded the femur in length. The front limbs were about two-thirds the length of the hind limbs, The normal position of the body was presumably the bipedal one, with the neck well erect, for the occipital condyle of the skull projected somewhat downward rather than backward, indicating that the head was held at right angles to the backbone. The arch of the back was stiffened by a latticework of tendons which, in an ossified state and particularly in duckbilled dinosaurs, are occasionally preserved.

Camptosaurus all disappeared during the Early Cretaceous. The evolution of the hadrosaurid or duckbilled dinosaurs in the Late Cretaceous resulted in a marked decline in the abundance and diversity of the iguanodontids. In fact, they ail but go extinct everywhere in the world except in Western Europe where, for some reason (perhaps geographic isolation), the advanced hadrosaurids never seem to have become firmly established.

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Juvenile Allosaurus
Upper Jurassic (154my)
Found: Morisson Formation— Wyoming, USA

Unique juvenile specimen with 40% of original bones preserved. It measures 8 feet 10 inches in length and stands just 3 fees 2 inches tall. This specimen was just in the early stages of its life.

$ 1.8 million

Pictured here is a representation of the Allosaurus mentioned above.

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ALLOSAURUS: THE SPECIMEN

This dinosaur is one of only a few juvenile Allosaurus ever found. It is dated back to the Upper Jurassic (154my) and was found in the Morisson Formation in Wyoming, USA. The skeleton is a unique juvenile specimen with 40% of the original bones preserved. It measures 8’10ft in length and stands just 3’2ft tall. The size shows that this specimen was just at the beginning stages of its life.

Allosaurus (pronounced Al-Oh-SAWR-us) is a genus of large theropod dinosaur that lived 155 to 145 million years ago, in the late Jurassic period. The first remains that can definitely be ascribed to this genus were described in 1877 by Othniel Charles Marsh. As one of the first well known theropod dinosaurs, it has long attracted attention outside of paleontolo- gical circles, and has been a lead dinosaur in several films and documentaries.

Allosaurus was a large bipedal predator with a large skull, equipped with dozens of large, sharp teeth. It averaged 8.5 meters (30 ft) in length, though fragmentary remains suggest it could have reached over 12 meters (39 ft). Relative to the large and powerful hindlimbs, its three-fingered forelimbs were small, and the body was balanced by a long, heavy tail. It is classified as an allosaurid, a type of carnosaurian theropod dinosaur. As the prominent large predator in the Morrison Formation, Allosaurus was at the top of the food chain, probably preying on contemporaneous large herbivorous dinosaurs. Potential prey included ornithopods, stegosaurids, and sauropods. While it is often thought of as preying on sauropod dinosaurs in groups, there is little evidence for cooperative social behavior in this genus, and individuals may have been aggressive toward each other instead. It may have attacked large prey by ambush, using its upper jaws like a hatchet.

The skull had a pair of horns above and in front of the eyes. These horns were composed of extensions of the lacrimal bones, and varied in shape and size. There were also lower paired ridges running along the top edges of the nasal bones that led into the horns. The horns were probably covered in a keratin sheath and may have had a variety of functions, including acting as sunshades for the eye, being used for display, and being used in com- bat against other members of the same species (although they were fragile).

The forelimbs of Allosaurus were short in comparison to the hindlimbs (only about 35% the length of the hindlimbs in adults) and had three fingers per hand, tipped with large, stron- gly curved and pointed claws. The arms were powerful, and the forearm was somewhat shorter than the upper arm (1:1.2 humerus/ulna ratio). The wealth of Allosaurus fossils, from nearly all ages of individuals, allows scientists to stu- dy how the animal grew and how long its lifespan may have been. Based on histological analysis of limb bones, the upper age limit for Allosaurus is estimated at 22 to 28 years, which is comparable to that of other large theropods like Tyrannosaurus. From the same analysis, its maximum growth appears to have been at age 15, with an estimated growth rate of about 150 kilograms (330 lbs.) per year.

The discovery of a juvenile specimen with a nearly complete hindlimb shows that the legs were relatively longer in juveniles, and the lower segments of the leg (shin and foot) were relatively longer than the thigh. These differences suggest that younger Allosaurus were faster and had different hunting strategies than adults, perhaps chasing small prey as juveniles, then becoming ambush hunters of large prey upon adulthood.

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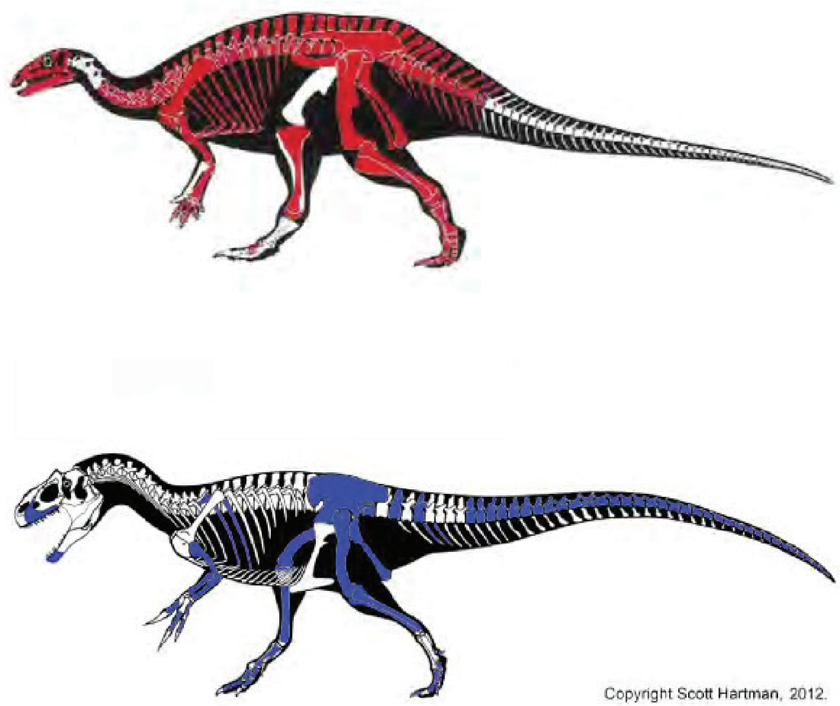

Bone maps of the pair of dinosaurs: colored sections represent found portions.

The pair together may be purchased for $ 2.5 M.

Pictured here is a representation of the Allosaurus mentioned above.

GEOLOGICAL CONTEXT

The Morrison Formation is bordered by the retreating Sundance Formation marine sediments below and the terrestrial Cloverly/Sykes Mountain Formation above. It is distributed over more than 1.5 million km of the western United States. Radiometric dates of 155–148 mya show that the Morrison Formation is entirely Late Jurassic (Kimmeridgian and early Tithonian). Deposition ceased about 7 My before the end of the Jurassic, which ended approximately 141 mya. The Morrison Formation consists primarily of clay and siltstone deposited by sluggish rivers, and limited amounts of carbonates that accumulated in a warm, moist lowland environment. Some sand and gravel was washed onto the Morrison alluvial plain as bedload increased during infrequent storms or seasonally wetter time intervals. Lakes and ponds probably dried up completely from time to time, as suggested by dinosaur tracks in some of the lacustrine mudstone beds and by the presence of numerous bones in mudstone beds that are interpreted as waterholes which went seasonally dry (Turner & Petersen, 1998).

The northern exposures of the Morrison Formation (Wyoming) contain coal, suggesting a much wetter and swampier environment than the southwestern outcrops (Arizona) that contain many aeolian sandstones, indicating a hot, arid, semi-desert (Turner & Petersen, 1998). On the Warm Springs Ranch the Jurassic beds dip North at 7-10 degrees and are associated to the Thermopolis anticline to the East. There are six measurable cross sections (members) of the generally 63m thick Morrison on the Warm Springs Ranch, divided into three generalized informal units of lower mudstone, middle quartzite sand and sha- le mixture and upper calcareous mudstone with sandstone channels in varying amounts (Jennings, 2006 ; Bjorker and Naus, 1996). All of the bone bearing sites fall into the upper middle “Brushy Basin member”.

The local depositional environment and paleotopography was a flood plain of low relief with paleosols overlying the main quarries with alternating sandy-clay and caliche and mudstone facies recharging from seasonal rain and flooding events with induced levee collapse and corresponding crevasse plays. The paleosol zones may indicate a decrease in depositional rate and the clay change reflects increased volcanic activity, both of which signal changes in the ecosystem that the dinosaurs were apparently sensitive to (Turner & Petersen, 1998). Likewise there would have been considerable sensitivity to a paleoenvironment produced by perennial and intermittent streams that drained western highlands, and shallow groundwater that was delivered by aquifers recharged by infiltration in the highlands or seasonal floods (Allen, 1996; Turner & Petersen, 1998).

Local Morrison Formation paleoecology involves a fauna preserved in thick deposits of mudstone, formed on described flood plains. The quarry site has produced large vertebrate fossils including sauropods and medium and small theropods. Dinosaur fossils are not the only fossils that are known from the Morrison Formation, fishes, lizards, amphibian and turtles are known from mostly fragmentary remains. Though industrial collection and cursory surface prospecting have limited the identification of many micro-vertebrate specimens.

The large herbivorous dinosaurs such as Apatosaurus and Camarasaurus range across the plain in search of water and vegetation but more likely many of the smaller animals would have found water, food, and shelter in riparian habitats. Vegetation on the floodplain had to depend primarily on seasonal direct precipitation onto the floodplain and the ability to tap shallow aquifers (Turner & Petersen, 1998). Seasonal stream beds likely supported riparian vegetation. Scattered lakes and ponds across the alluvial plain supported a variety of aquatic life. Plant fragments, spores and pollen, charophytes, sponge spicules, mollusks, and fish remains attest to the variety of life supported by many of these ephemeral lakes, and the corresponding floodplain of the Morrison ecosystem would have supported a considerable diversity of life, including the largest herbivores of Wyoming and the smallest theropods (Lovelace, 2004). Equally taphonomic changes may include biological and geological effects as well as physical influences; such as scavenging, trampling, or other interference by living organisms. Many specimens may have been preyed on or scavenged, as often parts of the body's portions which are all represented are yet incomplete.