DINOSAURS ARE COLLECTIBLE

DIGGING FOR DINOSAURS: THE ART, THE SCIENCE

THIJS DEMEULEMEESTER / KOEN STEIN

Lannoo





CONTENTS

CHAPTER 1 COLLECTING DINOSAURS 9 BUYING AND SELLING DINOSAURS CHAPTER 2 **DIGGING FOR DINOSAURS** 31 DISCOVERING AND NAMING DINOSAURS CHAPTER 3 FINDING DINOSAURS 77 FROM DINOSAUR TO FOSSIL TO DISCOVERY CHAPTER 4 **DINOSAURS & ART** 93 PALEOART AND ARTISTIC VISIONS OF PREHISTORY

CHAPTER 5
DINOSAURS OF THE FUTURE 135
CAN JURASSIC PARK COME TRUE?

Tom Liekens, The Land That Time Forgot, 2018.

>

<

A *Mosasaurus* skull in the salon of Italian filmmaker Francesco Invernizzi.







COLLECTING DINOSAURS

BUYING AND SELLING

DINOSAURS

'Dinosaurs are not tied to Eastern or Western culture. The continents as we know them today did not even exist when they roamed the Earth. That is why dinosaurs are like the Moon: they belong to everyone.'

lacopo Briano, natural history specialist, 2021

Let's begin with a true story. One day, a parcel delivery guy turns up on our doorstep with a large box in his hands. We open it, only to discover that it contains a turd. Our first thought? This must be someone's idea of a joke. But on closer inspection, it turns out to be a belated birthday gift. The droppings are hard and odourless. The accompanying greetings card says it's a fossil more than 70 million years old, and that it comes from an (unspecified) dinosaur. We didn't flush the coprolite – for that is what fossilised dinosaur excrement is called – down the toilet. It stands 'proudly' in our display cabinet. And every time children, teens or adults spot it, they react in the same way: first horror, then disbelief and, finally, fascination. Dinosaur fossils make us smile. Well, actually, anything 'dinosaur' does. Particularly when you realise you can collect them, even if it's only bits and pieces. A *Tyrannosaurus rex* tooth costs between €3,000 and €20,000, a *Triceratops* horn around €7,000. A chunk of fossilised poop costs around €50. If you dream of collecting larger dinosaur fossils, you'll need a heftier budget. A jawbone from an *Allosaurus* – the most dangerous predator of the Jurassic Period – can easily cost €50,000. And a well-preserved dinosaur skull can cost between €25,000 and €5 million, depending on its rarity and completeness. Complete skeletons are often sold privately between collectors, but they also sometimes come up for sale at auctions, art fairs or specialised dealers. When they do, they can often count on a lot of interest, from young and old.

'BIG JOHN'

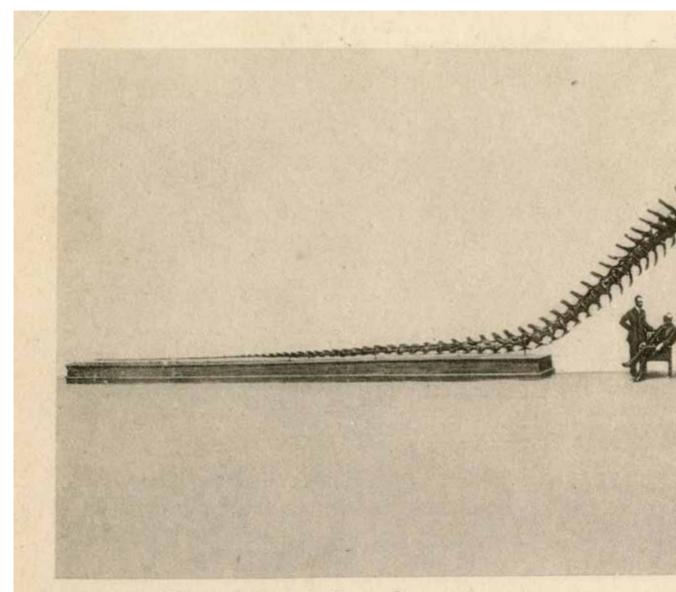
Dinosaur fans lined up around the block to see 'Big John', the Triceratops horridus that was sold in October 2021 at the Paris auction house Binoche et Giquello. Remarkably, not only children but older people flocked to see the horned dinosaur in real life. And what a creature it is - measuring 7.15m from head to tail, his skull alone 2.6m long and 2m wide. More remarkable still, the entire skeleton is 60 per cent complete. Impressive statistics for a Triceratops, specimens of which rarely appear on the market. The auction house went all out to create a buzz around the sale, selling Big John merchandise, such as Tshirts and face masks, and with a sale catalogue compiled with a flair for the dramatic. 'There's no question that the most life-threatening situation for a carnivore would be a run-in with a Triceratops. It's probably the most lethal creature to have walked the Earth,' the famous American palaeontologist (a scientist who studies fossils) Robert T. Bakker is quoted as saying in the catalogue. The hype worked, because the prehistoric colossus sold for €6.6 million to a telephone bidder, an anonymous, private collector. Quite a sizeable sum for a fossil that has little scientific importance in the history of palaeontology. Geologist Walter W. Stein, leader of the excavations at Mud Butte Ranch in South Dakota, did not discover the creature until 2014. And Big John was certainly not the first Triceratops to be unearthed in the Hell Creek Formation: dinosaur remains have been excavated there since the end of the 19th century. Palaeontologist John Scannella once said: 'It is hard to walk out into the Hell Creek Formation and not stumble upon a triceratops weathering out of a hillside.'



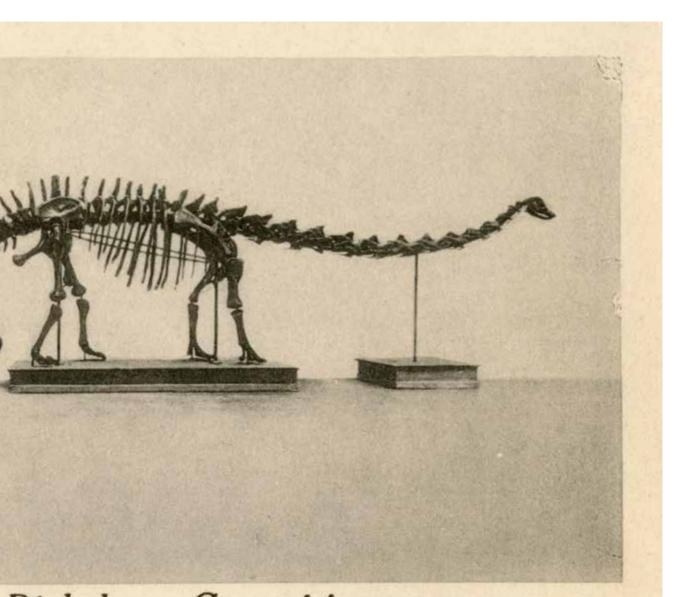
The *Triceratops* 'Big John' was sold for 6.6 million euros in 2021.

>

Scottish American industrialist and philanthropist Andrew Carnegie donated a cast of *Diplodocus carnegii* to the Musée National d'Histoire Naturelle in Paris in 1908 (see p. 58), of which a cast also is kept at the Naturhistorisches Staatsmuseum in Vienna.



Wien, Naturhistorisches Staatsmuseum



Diplodocus Carnegici (Hatscher). 34 m lang.

DRAMATIC DISPLAYS

A year earlier, on 13 October 2020, a complete *Allosaurus* that went under the hammer at Binoche et Giquello also garnered a huge amount of interest. This 10 by 3.5 million skeleton was valued at $\in 1$ million, but ultimately fetched just over $\in 3$ million. Of all the dinosaur species, allosaurs are among the more common, and come to light relatively often. For the public at large, the *Allosaurus* lacks the wall power of a *Tyrannosaurus rex*, although that's a little unfair. Together with *Ceratosaurus*, it was one of the most dangerous predators of the Jurassic Period. With teeth as sharp as steak knives, it was at the top of the food chain and built to kill. Walking on its hind legs, it probably attacked its prey with its mouth wide open. This is precisely how the skeleton at the auction was presented, mounted in a dynamic combat stance, primed to attack, unlike old specimens in natural history museums which are often displayed in the 'rigid', 19th-century style. Auction houses selling dinosaur skeletons cleverly capitalise on dinosaurs' cinematic presence, mounting them as though they were film stills from *Jurassic Park*.

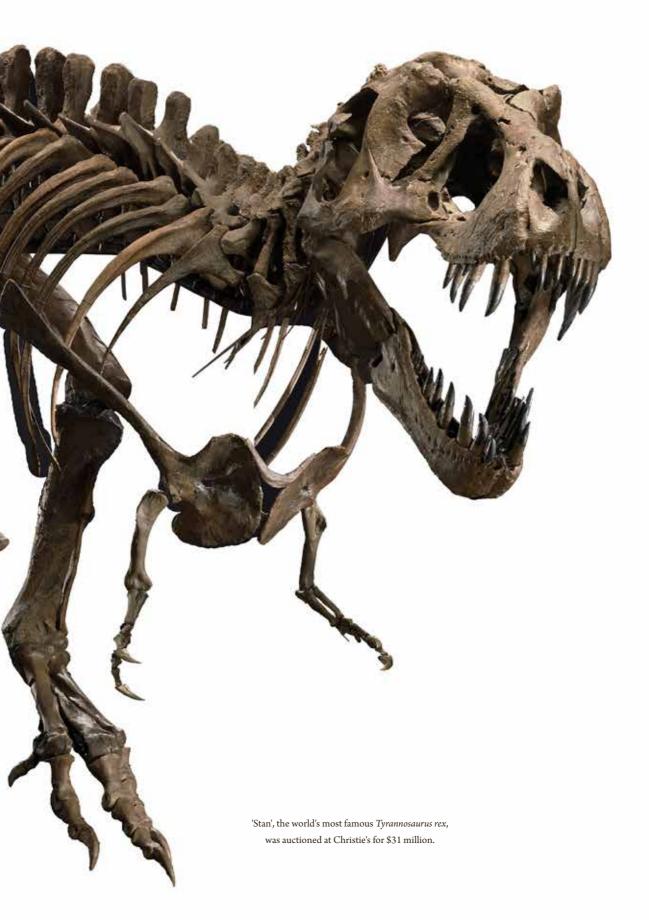
According to the natural history experts associated with the auction, 'The *Allosaurus* must have fought ferociously 150 million years ago, because in a fight with another dinosaur, it broke three ribs, which fused together.' Although there's no way of telling whether that epic battle actually took place, it's a story that fires our imaginations. Which is precisely why auction houses have begun to sell dinosaurs, and why today's collectors pay such immense sums in what is a relatively new market. Iacopo Briano, a natural history specialist who works with auction houses such as Binoche et Giquello, understands this universal interest all too well. 'Dinosaurs are not tied to Eastern or Western culture. The continents as we know them today did not even exist when they roamed the Earth. That is why dinosaurs are like the Moon: they belong to everyone.'

A \$31 MILLION DINOSAUR

There's no question that the most talked-about dinosaur that sold recently was 'Stan', one of the largest, best-known and most intact skeletons of a *Tyranno-saurus rex* ever discovered. Stan comes with a spectacular story. Scientists discovered he had a broken neck and a hole in his skull, possibly from a bite from a fellow *T. rex*. Stan Sacrison, an amateur palaeontologist who freelanced for the Black Hills Geological Institute, unearthed the skeleton in 1987. In 1992, the year before the release of *Jurassic Park*, excavations began under the direction of Peter Larson.

Stan's 2020 sale at Christie's New York involved a superabundance of stunt work. The dinosaur wasn't on sale at a 'traditional' auction packed with fossils or other natural history collectibles. Christie's pulled out all the stops, crowning Stan the king of their evening sale of modern and contemporary art. The dinosaur rubbed shoulders with sought-after artists such as Jackson Pollock and Paul Cézanne. When Christie's offer a T. rex skeleton and a Jackson Pollock at the same evening sale on the same night, there can be no doubt - dinosaur fossils are the new collectibles. The question is, can you put Stan on the same level as a Picasso or a Matisse? Is he equally rare? And will he attract the same wealthy collectors as blue-chip art? Every time, the answer has been a resounding 'yes'. That night, the skeleton sold for the all-time world record of \$31 million. Evidently, Christie's cross-disciplinary sales strategy was an electrifying success; overnight, dinosaurs had become as desirable as the works of the modern masters. And that pushed prices up, too, especially for a masterpiece like Stan, one of the world's most lauded dinosaur skeletons. 'Coming face to face with Stan for the first time was awe-inspiring. He was bigger and scarier than I'd imagined,' said James Hyslop, head of the natural history department at Christie's. 'When I first saw him, he was just a jumble of bones in a crate. But over the next eight to 12 hours, I got to see him being assembled, bone by bone. It was breathtaking. It's not often you get so close to one of the most complete T. rex skeletons ever found.'





CHECKLIST FOR DINOSAUR BUYERS

Seven things to look for when you buy dinosaur fossils:

- 1. Check the quality, origin and rarity.
- **2.** Note how complete the skeleton is. Skeletons or skulls of common species can be up to 75 or 80 per cent complete. In the case of extremely rare species, 40 per cent is acceptable.
- **3.** Buy a skeleton that accurately represents the creature. No one wants half a dinosaur. A missing tail vertebra isn't a problem. But what do you do with a dinosaur that has no hind legs?
- **4.** Is the skeleton a 'Frankenstein amalgam'? Most dinosaur skeletons are assembled from the bones of different specimens, sometimes from completely different sites. And that's okay, but if the skeleton is an amalgamation, this ought to be stated transparently in the description. This is not a problem with mammoths, as the legs often wash ashore separately.
- **5.** Check to see which parts of the skeleton are casts. It's common to replace missing bones with replica plaster fragments. If this is the case, it must be clearly stated in the description. A certificate that describes which parts belong to the original skeleton and which are reconstructions must accompany every sale.
- **6.** Ask for photographs of the site, for documents approving the excavation and any papers relating to the fossil's exportation. The photographs of the site are important because they provide visual evidence of what the fossil looked like in the rocks and how the bones were dug out. This information shows what happened on site, and how the dinosaur was prepared and mounted afterwards.
- 7. A legal document providing proof of provenance is essential, given that some countries prohibit the exportation of fossils. However, under certain conditions, you are permitted to export bones from the United States, for example. But you need to take precautions when exporting fossils from countries such as Brazil, Mongolia or China, as American businessman Eric Prokopi discovered in 2012, when he wanted to sell a *Tarbosaurus* skeleton smuggled from Mongolia in New York. Actor Nicolas Cage also returned a skull of a *Tarbosaurus bataar* in 2015, because it came from Mongolia. In 2020, discussion arose about a spectacular Brazilian fossil of *Ubirajara jubatus* that ended up in a German institute under questionable circumstances, resulting in scientific research and publications about the fossil being frozen.

THE 'SUE' CONTROVERSY

Stan was not the first intact T. rex to be auctioned. In 1997, 'Sue' went under the hammer and, even then, sold for a staggering €8.7 million. Sue is one of the best-preserved tyrannosaurs ever discovered. But the remains are steeped in scandal, which was also the subject of the 2014 documentary Dinosaur 13. In 1992, the skeleton was seized from the Black Hills Geological Institute, where it was being studied after the fossil hunter Sue Hendrickson found it in 1990. A years-long legal battle ensued with Maurice Williams, the owner of the land where Sue was allegedly excavated. Williams won the case and regained possession of the skeleton, after which he decided to auction it at Sotheby's in 1997. The auction was as hair-raising as the chase scene in Jurassic Park. Bids started at a cautious \$500,000. But because museums feared the priceless remains would end up in the hands of a private collector, frenzied fundraising had taken place behind the scenes beforehand. The Smithsonian was prepared to pay \$2.5m. But in the end, the Field Museum of Natural History in Chicago bagged the spoils for over \$8 million, with the financial support of private philanthropists, boosted by funding from McDonald's and Walt Disney. It was immediately decided to make several replica casts of the unique skeleton, so it could travel the globe.

It's worth noting that it was these very companies that helped purchase the fossil. Let's not forget, dinosaurs hold a unique place in our hearts as pop culture icons and are fabulously mediagenic. And, in that sense, Sue's auction was perfectly timed. In the 1990s, the *Jurassic Park* movie and its sequels unleashed a veritable dinomania. But dinosaur madness was never only for children and teens. Even famous film stars such as Leonardo DiCaprio, Nicolas Cage and Russell Crowe collect dinosaur bones, as do several other Hollywood figures. 'What happened after the Jurassic Park movies was that every wealthy person in the world apparently decided they had to have a dinosaur in their living room,' said palaeontologist Hans Sues, connected to the National Museum of Natural History at the Smithsonian Institution.

Auction-world insiders point out that, in recent years, a new generation of collectors from Japan, Singapore, Hong Kong, Korea and the United States has emerged, eager to buy these important dinosaur fossils, sometimes as an investment. Prehistoric remains find their way into private collections, private museums or public places, as tourist eye-catchers. 'Complete dinosaur skeletons have become a status symbol. As a timeless artifact, they will never date. Over time, the remains may be interpreted differently, but a skeleton such as this is timeless,' says British palaeontologist Mark Witton. He compares a complete skeleton to a classic car: 'You don't want a vintage vehicle that's been patched up, do you? You just want the original.'





DINOSAUR FOSSILS IN THE WUNDERKAMMER

'I understand the global appeal: a dinosaur is more universal than a Picasso. And easier to appreciate; you don't need any formal training. Put bluntly, it doesn't require any "taste" on your part, just a fascination with dinosaurs and a dash of nostalgia for your childhood,' says Luca Cableri. The Italian is one of the few art dealers who regularly sell dinosaur fossils, both in their gallery and at art fairs. In his gallery in Arezzo, Cableri has already offered a complete *Allosaurus* and a *Diplodocus* for sale and, at the Brussels art fair BRAFA, sold a *Triceratops* skull. Cableri doesn't simply deal in fossils or natural history. Just like Christie's, he adopts a multidisciplinary approach, combining dinosaur remains with other collectibles reminiscent of the age-old *Wunderkammer* tradition, or 'cabinet of curiosities'. Think stuffed animals, ancient navigation-al instruments, exotica, and meteorites nestling among Hollywood props and even memorabilia from the history of space travel – the fossils of the future.

The upper jaw of an Allosaurus.

The horn of a *Triceratops*, auctioned at Binoche et Giquello for €5410.

>

The Theatrum Mundi gallery in Arezzo, a *Wunderkammer* that sells curiosities from prehistory until now.



