




ARTICLE

T. rex is Fierce, *T. rex* is Charismatic, *T. rex* is Litigious: Disruptive Objects in Affective Desirescapes

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Abstract

In this paper we present *T. rex* fossils as disruptive objects that can drastically influence the actions and reactions of humans that encounter them. We present a vision of the *T. rex* as being a key node within a web of human and object associations that ultimately produces, first, extreme desire in humans, and then a breakdown in human relationships resulting in disagreements, disputes, lawsuits, and the committing of crime. From there we bring these *T. rex* fossils into the concept of *desirescape* which sees a network of object/object and object/human reactions provoking irresistible desire in humans. We argue that this desire can push humans to violate law or social norms or, in several *T. rex* cases, sue each other. How then should we humans approach *T. rex* and other disruptive objects? Cautiously, and with the knowledge that these objects may be more powerful than we are.

Keywords: desire; lure; objects and crime; objects and law; fossils; dinosaurs

Introduction

In 2022, as we began to query the role that fossils play in legal disputes, a palaeontologist noted to us that “given the frequent and infamous litigious cases involving Tyrannosaurus [...] and the ‘Tyrannosaur fallout’ that museums currently face, it almost seems that today the fastest way to paleontologically find yourself in the courtroom is to discover a rex.”¹ The physical remains of *Tyrannosaurus rex*² are almost always found in the United States³ in a swath of the American West where land rights, access, ownership, and use are hotly contested and are truly complicated. The cultural image of *T. rex* is found everywhere: films, toys, socks, book bags, video games, chicken nugget shapes, dog Halloween costumes. The superimposition of these two aspects of *T. rex*’s contemporary

¹ Dr Cary Woodruff, Personal Communication, 2022 (with permission).

² For consistency’s sake, in this paper we employ the italicised shortened taxonomic name *T. rex* for *Tyrannosaurus rex*. *T. rex*, T. rex, T-Rex, T-rex, and other permutations all refer to the same animal and its fossil remains within the public, media, and legal discourse. We will not place *sic* next to their use in quotes. We have also decided to use *T. rex* for the plural form of the word, over *T. rexes* or the deliciously tempting *T. reges*.

³ *T. rex* is also found less frequently in Canada, e.g., Scotty, found in Saskatchewan and Black Beauty found in Alberta.

existence, and the two relationship networks that emanate out from where they interact seems to disrupt the normal flow of human interactions. *T. rex* is at the centre of that disruption.

In this paper we present *T. rex* fossils as disruptive objects that can drastically influence the actions and reactions of humans that encounter them. We present a vision of the *T. rex* as being a key node within a web of human and object associations that ultimately produces, first, extreme desire in humans, and then a breakdown in human relationships resulting in disagreements, disputes, lawsuits, and the committing of crime. With this, we shift the focus away from the traditional human-to-human conception of such disputes and away from the dismissal of resulting *T. rex* court cases as stemming from financial incentives alone. Such a construction ignores that value is not intrinsic to the *T. rex*. To say that people commit *T. rex* crime or enter into *T. rex* legal disputes because *T. rex* is valuable falls too far short of the obvious next question: why is *T. rex* valuable? We argue that the financial value of the *T. rex* stems from its ability to stimulate human curiosity, wonder, desire, and discord.

To explore the disruptive nature of the *T. rex* we will present six *T. rex* specimens which have been the subject of sometimes multiple legal disputes or have interacted with disputed specimens in an important way: Trix, Stan, Sue, Peck's Rex, Shen, and Maximus. Many of these cases are connected: the *T. rex* world is a small one with the same people and institutions appearing in various contexts. However, we present these cases individually so that the particular power of the *T. rex* in question to disrupt is clear. This is not to downplay what we see as a network of *T. rex* specimens working in tandem towards influence and disruption, and we have highlighted clear *T. rex* collaborations within the cases discussed. Yet rather than chart interconnectedness we have chosen to let the sense of *T. rex* disruption grow and accumulate for the reader as a first step towards understanding these objects in this capacity.⁴

Here we focus not on the legal arguments made in the court cases that these fossils were involved in, but on the points of affective interaction between humans, fossils, and the legal system. That the *T. rex* fossils in question have human-like names already allows us to enter a cognitive space where the fossils are truly involved in the proceedings. From there we bring these *T. rex* fossils and their cases into the concept of *desirescape*⁵ which sees a network of object/object and object/human reactions provoking irresistible desire in humans. This desire can push humans to violate law or social norms or, in several *T. rex* cases, sue each other. We see the *T. rex* fossils as the disruptive node in the *desirescapes* they are part of; they are active objects that, through their relationships, cause humans to not only react, but argue to the point of seeking legal intervention.

The goal is to experiment with the idea that *T. rex* have the ability disrupt human lives, particularly in a legal landscape. This may be a conceit, but we feel it is an important one which reveals information about human experience of objects. With this we hope to expand upon a consideration of people as being "bodily participants in a matrix of material things, where ineffable metaphysics like atmospheres and affects play with emotional senses".⁶ By centralizing the affective qualities and, indeed, the destructive power *T. rex* fossils in a series of court cases, we can begin to consider who, or rather, what else shapes the way we humans interact with courts, the law, and each other in legal spaces.

⁴ These interconnections between *T. rex* court cases and disputes and collaborations between *T. rex* specimens are an aspect of our current research and will be the subject of future publications.

⁵ Yates and Mackenzie 2021

⁶ *ibid*, p. 119

T. rex Appeal and Human/Dinosaur Relationships

Humans are undeniably captivated by dinosaurs and, accordingly, dinosaurs are a charismatic component of our contemporary human existence. Even though the last non-avian dinosaur died millions of years ago, we interact with them on a daily basis through many forms of popular culture. The authors' respective toddlers can identify dinosaurs by sight.

Perhaps no dinosaur is more charismatic than *Tyrannosaurus rex*. It is giant, mean, terrifying, weird, and is everything humans want out of a dinosaur. It tops the A-list of dinosaur celebrities. Humans are attracted to *Triceratops*, *Stegosaurus*, “*Brontosaurus*”, and *Velociraptor*, but none of these creatures rise to the charisma level of *Tyrannosaurus rex* in our society. *T. rex* is so popular, it is commonly known both by its full scientific name (unlike say *Triceratops horridus* or *Stegosaurus stenops*) and by a popular nickname; it commands both human respect and familiarity. Everyone knows *T. rex* and many people love *T. rex*, but our relationship with *T. rex* is complicated.

Palaeontology, the study of fossilized remains of past life, coalesced as a scientific discipline in the early 19th century, notably around the discoveries of Ichthyosaur and Plesiosaur fossils found at Lyme Regis in England.⁷ The fossils that were discovered projected an image of the distant past filled with life that was fundamentally different from our own. The fossils' ability to inspire wonder in humans seems to have provoked the foundations of ongoing societal desire, ultimately leading to the early development of commercial fossil trading.

Moving to the United States, the rapid expansion of Europeans into the American West, alongside the resulting land theft and genocide of Indigenous American cultures, put people schooled in the results of budding scientific research in direct contact with alluring and often-massive dinosaur fossils. This period in paleontological history has been termed the “Bone Wars” or “The Great Dinosaur Rush”. The Bone Wars and the period immediately after were characterized by an overwhelming desire from key paleontological actors to possess the newest most noteworthy fossils.⁸ Entangled in the net of dinosaur lure, they acted rationally and irrationally, ethically and unethically, legally and illegally. They also sparked the foundations of mass fossil consumption as we recognize it today: embedded in a cowboy culture of the American West with discovery often followed by contention.

Contemporary fossil markets developed as a conduit through which palaeontology could be supplied with the raw material of scientific analysis. Yet, fossils and, in particular, dinosaur fossils, have notable power to attract people from beyond the sciences. This ability to lure was not lost on the 19th and 20th century developers of natural history museums, with dinosaurs identified as drawing the public to the museum. Getting people across the museum threshold helped museums to achieve their educational mission, but also resulted in increased revenues from wealthy patrons. Philanthropists wanted to see attendance numbers increase in relation to their donations, and in direct ticket sales. More recently, as museums have considered how to increase footfall and ticket sales, they have turned to dinosaur fossils supplied by the commercial market to do so. Why do dinosaurs, particularly certain dinosaurs, have the power to draw humans? This question goes beyond the scope of this work, but we refer the reader to research that takes on that matter directly.⁹ What matters to the following discussion is that the draw exists.

As more people fell under the charismatic spell of dinosaur mania over the 20th century and into the 21st century, the monetary value of certain dinosaur specimens increased. Private collectors entered the frame, responding to the important place that dinosaurs

⁷ Emling 2009; Pierce 2014

⁸ e.g., Brinkman 2010; Dingus 2018; Jaffe 2001; Lanham 1991; Randall 2022; Rieppel 2019; Wallace 1999

⁹ e.g., Demeulemeester and Stein, 2022; Mitchell 1998; Nieuwland 2021

occupy in our society, and the social caché of owning a charismatic dinosaur celebrity. This influx of private demand and funds caused the price of celebrity dinosaurs such as *T. rex* to balloon, and fierce competition for the most desirable fossils has pushed many museums out of the market.

With dinosaurs entering the private homes of the wealthy, and the wealthy competing with museums for the purchase of certain dinosaurs at private sales and outbidding museums at auction, we must confront a new idea: dinosaurs as high-value goods that are not only bought and sold but that are subject to the darker sides of consumer capitalism. With high ascribed monetary value comes the dinosaur as an asset for speculation and investment, the dinosaur as the subject of civil dispute, and the dinosaur as an accomplice to crime.

Within this space of dinosaur-human relations and the increased commodification of dinosaurs, dinosaurs broadly and *T. rex* specifically started interacting with the legal sphere. Law was formed around and for *T. rex* and *T. rex* inspired lawbreaking, provoked lawsuits, and forced all sorts of actions that landed their enthusiasts and themselves in the courtroom. While only a limited number of relatively complete *T. rex* specimens are known to currently exist out of the ground,¹⁰ this group has been the subject (or object?) of what might appear to be a surprising number of legal disputes and criminal court cases. *T. rex* is fierce, *T. rex* is charismatic, *T. rex* is litigious.

Meet Trix: Are you up to the challenge?

At the time of writing, the Naturalis Biodiversity Center, the Dutch national museum of natural history, currently invites visitors to a ‘Rexperience’. They offer a deeply affective atmosphere where visitors can ‘Stand eye to eye with a *T. rex*’ and ask, ‘Are you up to the challenge?’ (figure 1). Visitors are promised they can ‘meet Trix¹¹ in real life!’¹²

Trix, who museum goers are invited to meet, is 75 to 80% of a fossilised *T. rex* that was last alive around 67 million years ago, give or take. Trix joined the Naturalis collection in 2016 but the museum entered the *T. rex* market in 2012 by contacting well-known suppliers in the United States as part of a broader plan to increase museum footfall and corresponding revenue: people show up for a *T. rex*.¹³ Trix’s museum position is at the confluence of lure and value with the fossil’s disruptive draw harnessed to move people out of their normal pathways and come into the museum. Trix was acquired to cause people to act.

Yet before, during, and even after its¹⁴ move to the museum collection, Trix was a disruptor, causing a series of legal disputes and appeals that were eventually heard in Montana’s Supreme Court, and provoked the Montana legislature to enact new laws related to fossils. At the heart of this case were the complicated interactions between humans,

¹⁰ This excludes small fragments and *T. rex* teeth which are relatively common. It also excludes closely-related Tyrannosaurids within different a genus (e.g. *Teratophoneus* and *Tarbosaurus*). It is difficult to put an exact number on how many *T. rex* specimens are out of the ground because, as possibly private property, they resist being counted by scientists.

¹¹ It is common in palaeontological circles to put *T. rex* names in quotation marks. However, in popular circles, e.g. within many museums, on the market, and in some court cases, quotation marks are omitted. We have chosen to omit quotation marks both because court, market, and other popular sources are what we have drawn upon for this article, and because a real name and individuality helps emphasise how *T. rex* can form relationships.

¹² Naturalis 2022

¹³ Besselink 2016; Naturalis 2019; Remmerts de Vries 2016

¹⁴ This paper adopts ‘it’ as a pronoun for *T. rex* specimens. The they/them pronouns preferred by the popular social media account for ‘SUE the *T. rex*’, a *T. rex* specimen in Chicago’s Field Museum of Natural History (see: <https://twitter.com/SUEtheTrex>), are appealing, but confusing in this context. In most cases palaeontologists are currently unable to determine the sex of *T. rex* skeletons.

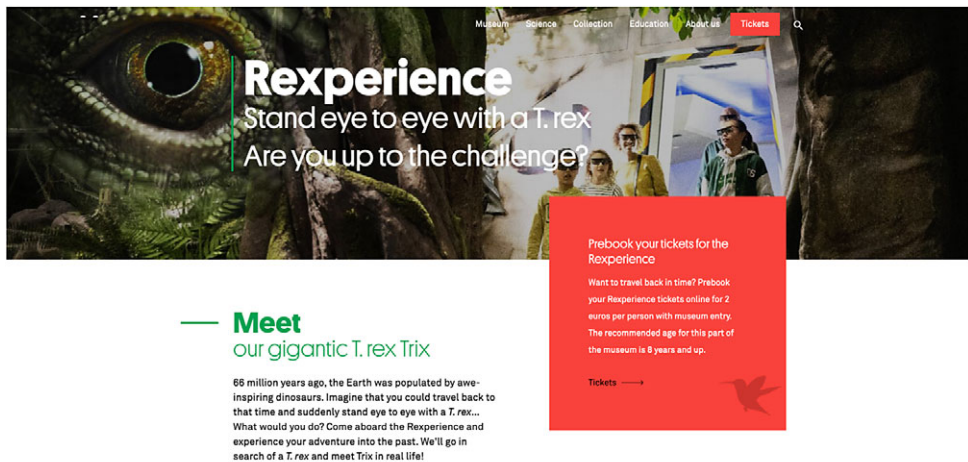


Figure 1. The 'Rexperience' offered on the Naturalis Website (<https://www.naturalis.nl/en/museum/galleries/rexperience>). Screenshot taken by Yates, 12 October 2022.

fossils, and land and the kinds of legal and ownership relationships that the courts would recognise between these entities. Here the *T. rex* was a disruptive object: it did not allow itself to be easily classified. It caused human disagreement about the fundamental nature of fossils, provoked by a desire to possess and sell this one. If it was easy to tell exactly what Trix and other fossils are, then there would have been no court case. Instead, Trix caused the interested parties to act, with the value of the *T. rex* playing a part in the disruptive confusion.

Trix was found on land located in Garfield County, Montana.¹⁵ The land had been owned by George Severson, but Lige and Mary Ann Murray began to lease the land in the early 1980s. Severson eventually sold the Murrays part of the land and transferred other parts of the land to his sons. In a complicated situation that characterises land ownership, transfer, and dispute in the region, Severson's sons sold the *surface* ownership of the land to the Murrays in 2004, but the *mineral* rights to the land were subject to a separate agreement. This saw a one-third share of the mineral rights going to each of George Severson's sons and to the Murrays. To make matters more complicated, one parcel of the land in question was under a different mineral rights agreement which saw 50% of the mineral rights belonging to a company named Billings Garfield Land Company, and 16.67% belonging to each of Severson's sons and the Murray's respectively.

At the time these arrangements were being made, there was no indication that fossils would be found on the land, meaning that these complicated ownership agreements were drawn up without the disruptive presence of a *T. rex*. By most accounts, the arrangement suited all parties until 2006 when the first tyrannosaur was found. This, the so-called *Dueling Dinosaurs* fossil, consists of an adolescent tyrannosaur and a *Triceratops horridus* that were fossilised in such a way that it looks like they are fighting each other when they died.¹⁶ The fossils interacting with each other, and further interacting with the titillating human

¹⁵ Details of this case are drawn from associated court rulings, see: F.Supp.3d 1203 United States District Court, D. Montana, Billings Division. CV 14-106-BLG-SPW; 908 F.3d 437 United States Court of Appeals, Ninth Circuit. No. 16-35506; 400 Mont. 135. Supreme Court of Montana. OP 19-0304; 962 F.3d 485. United States Court of Appeals, Ninth Circuit. No. 16-35506.

¹⁶ Greshko 2020

cultural image of dinosaurs fighting, instantly provoked intense desire which disrupted pre-existing human relationships. The monetary value of these fossils was a given based on their desire-provoking nature: Bonhams auction house appraised the Dueling Dinosaurs at between \$7 to 9 million USD.¹⁷ But what human owned these fossils? It was not immediately clear.

Although the human entanglement of surface and mineral rights to the land that Trix was found on/in may seem complicated, they represent a fairly well-defined space of Montana law. However, Trix, as a disruptive object, was able to create a grey space within that law for itself by way of its resistance to easy categorisation. What Trix is would determine who owned Trix and thus who would profit from the fossil's sale to Naturalis. However, Trix disrupted the ownership determination process by not being something the law was prepared to categorise.

The Severson brothers made the argument that Trix was, ultimately, a mineral; that at some point in the past Trix ceased being the skeletal remains of a dinosaur, and the organic matter that was its bones 'recrystallized' into a mineral called francolite. The Seversons further argued that as *not* an animal (and not a living dinosaur) Trix was then part of the property's mineral estate. As such, the Seversons believed they were due a portion of the money Naturalis had already paid for the *T. rex*. Trix did not submit to this classification, however, and Pete Larson, an expert for the Murray's and a person who has had a long-standing relationship with several very disruptive *T. rex* specimens (e.g., Sue and Stan discussed below), argued that francolite had not been recognised as a mineral, and that fossils are composed of hydroxylapatite which is also found in the bones of living animals. He stated that the fossil 'has not been replaced by minerals in any way, shape, or form.' Trix, then, is still Trix; the disruptive *T. rex* has not been replaced by something more mundane and easier to name and tame.

The 'what is Trix?' question seems to have pulled the court into the weeds. First, the court determined that a substance being 'rare and exceptional' (which Trix certainly is) helps to determine if that substance is considered a mineral under the law. The court found that some things that ARE minerals in day-to-day human experience are not rare and exceptional and, thus, are not minerals when it comes to mineral rights to land. The court also noted that not all rare and exceptional materials that are found in the ground fit into the 'ordinary and natural meaning of mineral', stating that just because something is rare, exceptional, and is what a scientist might call a mineral, does not make that something a mineral under the law. So, what is Trix?

To answer this question, the court spent time with some dictionaries. Regular dictionaries. Law dictionaries. Also with Montana's tax code, as well as other court cases. From there the court reached the conclusion that no matter how rare, exceptional, and fossilised Trix may be, Trix is not a mineral under Montana's law and the Seversons had no claim to the fossil. At the core of the court's determination was where value stems from in Trix. The court ruled that minerals under the law are things that are 'extracted for future refinement and economic purposes' such as oil and gas. Their qualities *as minerals* create their value. Trix, however, is far more singular and charismatic than that. The court found that a fossil's mineral composition 'does not make them valuable or worthless' and that 'value turns on characteristics other than mineral composition, such as completeness of the specimen, the species of dinosaur, and how well it is preserved.' In other words, the court found that Trix's

¹⁷ Ever the disruptor, the litigation that the Dueling Dinosaurs provoked allowed the fossils to undermine their appraisals. When the Dueling Dinosaurs put up for sale at auction in 2013, the minimum bid of \$6 million was not reached (Kaplan, 2013). The North Carolina Museum of Natural Sciences eventually acquired the fossil in 2020 following the Montana Supreme Court ruling discussed here. The fossil was purchased privately then gifted to the museum (North Carolina Public Radio, 2020).

value stems from the way the specimen can interact with humans as a *T. rex* and the desire it can provoke. But the dispute did not end there, the *T. rex* was far too disruptive to accept definition without further fight.

The Seversons appealed the ruling to the United States Court of Appeals for the Ninth Circuit and in 2018, that court ruled that Trix is a mineral after all, in terms of mineral rights to land in Montana. After hearing arguments, the Court of Appeals found that the dictionary method used by the District Court to try and define Trix resulted in a hodgepodge definition that deviated from the entries it was based on. In keeping with the disruptive quality of the *T. rex*, there was a dissenting opinion to this ruling: Judge Murguia did not believe that fossils fall under the ‘ordinary and natural’ meaning of the word mineral. Trix was not making things easy for anyone.

By this time, Trix was causing problems at several levels. What Trix was could potentially have an effect on what every fossil found on/in private land in Montana was. If Trix and other fossils *were* minerals, it is likely they had always been minerals under Montana law. This would mean that bearers of mineral rights to land had an ownership claim to all fossils found, past and present. This could cause confusion, put prior sales into question, and could result in museums having to give up specimens. The number of lawsuits that these mineral dinosaurs might provoke was staggering.

At that point, Trix forced two important actions. First, in 2019 Montana’s governor signed the bill Montana 2019 H.B. 299 into law which says that ‘fossils are not minerals and that fossils belong to the surface estate’. Although the law cited a desire for retroactivity, it only definitively applied to any future fossils found in Montana. Fossils discovered prior to the bill *might* be minerals; Trix was still a disruptive problem. Due to the unsettled and controversial nature of their 2018 ruling,¹⁸ the Ninth Circuit Court of Appeals certified a question to be placed before the Supreme Court of Montana, asking if fossils were minerals under Montana’s pre-2019 law. The Montana Supreme Court found that Trix and other fossils were *not* minerals, the opposite of what the Ninth Circuit had found, stating among other things that within Montana law fossils are only mentioned in relation to antiquities, so cultural objects, which singles fossils out as objects that are different, special, and separate. As such, the court ruled that non-mineral Trix, who was already in *Naturalis* at this point, as well as the Dueling Dinosaurs, had been owned by the Murrays until they were sold.

It is easy to consider the Trix case through the superimposed lenses of property dispute and the human desire for a whole lot of money. *Naturalis* paid around €5 million EUR for Trix,¹⁹ and while some of that money would have helped to pay for the dinosaur’s extraction and preparation, it still would result in a windfall for any seller. It paid to own Trix. However, if we consider Trix as a disruptive object that resisted being classified with and against other less difficult objects, we can start to define the object’s role in what we would normally see as purely human disputes. Trix caused problems that only a *T. rex* could cause, ultimately forcing Montana to modify the law. Trix was an agent of disruption and change.

Meet Stan: A ‘Fucking Bad Ass’

‘Stan the *T. rex* found!’ was a National Geographic headline for 23 March 2022, forcing the reader to wonder how 70% of a fossilised *T. rex* skeleton found in 1987 and weighing 5.6 tons could have gotten lost.²⁰ As it turned out, Stan was in Abu Dhabi, or at least on the way there, having been purchased by the Department of Culture and Tourism in 2020 and exported in

¹⁸ The immediacy of the passing of Montana 2019 H.B. 299 after the 2018 judgement was a strong indication of this.

¹⁹ NOS Nieuws 2016

²⁰ Greshko 2022

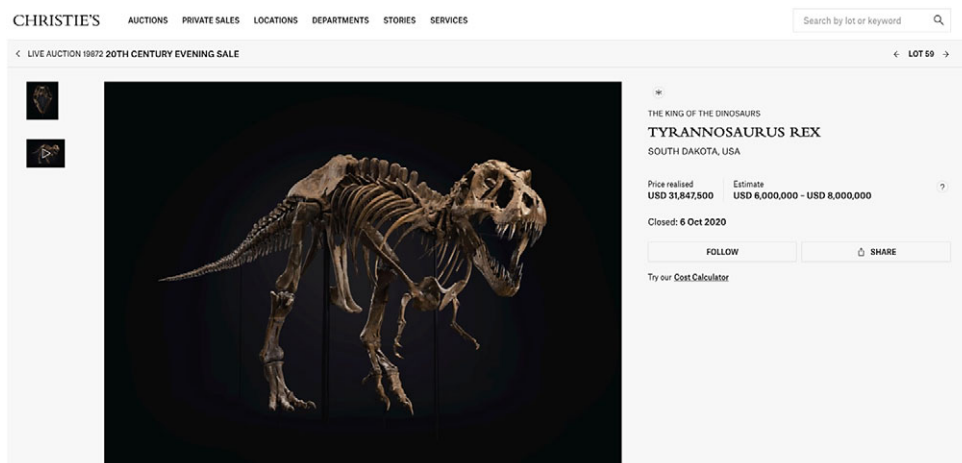


Figure 2. Stan the *T. rex* offered for sale on the Christie's website (<https://www.christies.com/en/lot/lot-6283836>). Screenshot taken by Yates, 19 October 2022.

2021. Prior to this Stan had been sold at public auction for a staggering \$31,847,500 USD²¹ (figure 2) and while the price the fossil commanded was public, who paid that price was not.

For a year and a half Stan provoked rampant speculation among his human fans and enthusiasts. In January 2022, Stan speculation hit such a peak that actor and former professional wrestler Dwayne 'The Rock' Johnson was forced to go on record stating that Stan was not in his possession.²² Johnson had appeared on a broadcast of the sports network ESPN in his own home with what appeared to be part of the missing Stan in the background. When asked, Johnson said 'I got a *T. rex* skull, yes... That's Stan.' Johnson was someone who might have been able to afford Stan's auction price tag, and Stan's searchers demanded answers. Johnson later explained on Instagram that while, yes, the skull was Stan, it was a replica developed from Stan's fossilised head. Johnson went on to say 'STAN is so extraordinary and special [...] if I was the proud owner of the real STAN, I sure as hell wouldn't keep him in my office. [...] STAN's a fucking bad ass.'²³ At the time of writing, Johnson's discussion of Stan had over 1.5 million 'likes' (figure 3).

Stan, the *T. rex* that a beloved ex-professional wrestler considers a 'bad ass', emerged from the ground in South Dakota in 1987, and its removal by the Black Hills Institute of Geological Research (BHI) began in 1992.²⁴ Stan is noted for its 'perfect' skull which is more complete and less fractured than other existing *T. rex* specimens, allowing Stan to provoke desire among scientists who wish to study *T. rex* cranial features, and among *T. rex* fans such as Johnson who wish to bring this most charismatic part of *T. rex* into their lives and homes. Stan's ability to disrupt human trajectories via its appeal as a cast will be discussed in the next section. Here we will consider Stan's ability to cause discord and undermine the courts via its resistance to being valued.

For decades, the heart of the BHI were brothers Pete and Neal Larson. The Larsons began their fossil focused careers as children, searching for fossils in their native South Dakota, and the partnership extended to eventually excavating numerous fossils, including at least

²¹ Christie's 2020

²² Gamillo 2022

²³ Johnson 2022

²⁴ Larson and Donnan 2002

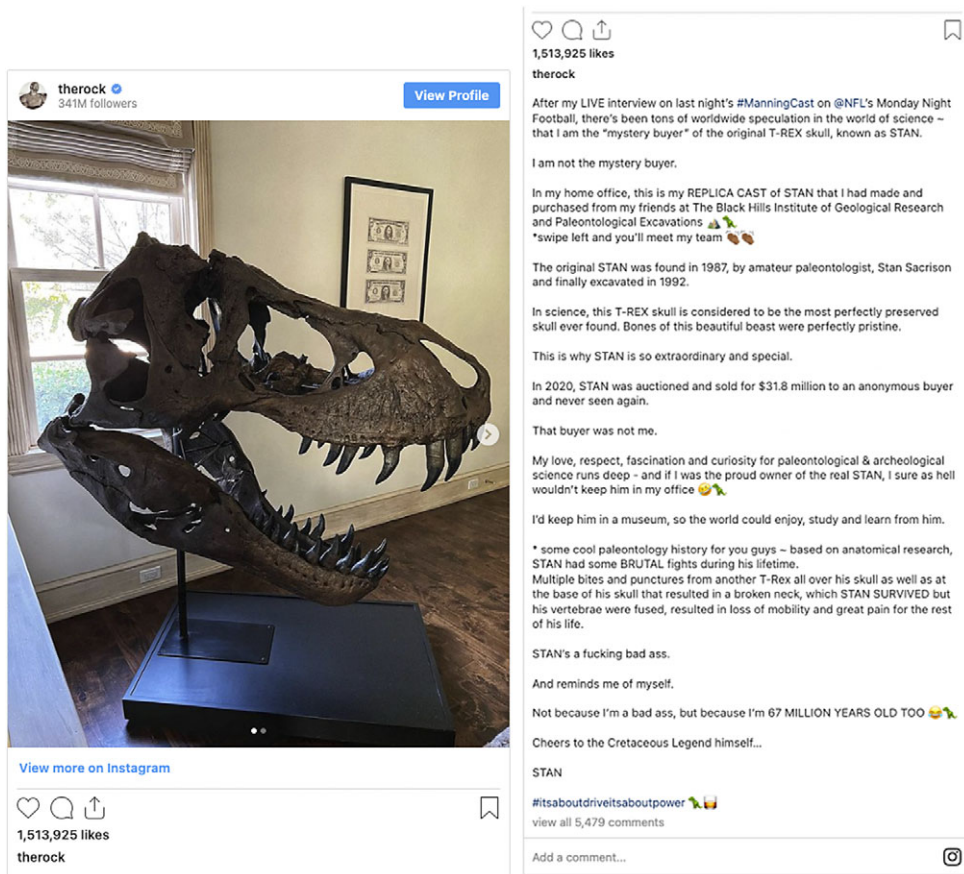


Figure 3. Dwayne Johnson's Instagram post denying ownership of Stan (<https://www.instagram.com/p/CY5QIDCrZb0/>). Screenshot taken by Yates, 14 October 2022.

11 *T. rex*.²⁵ Neal²⁶ is more known for his work on ammonite fossils,²⁷ while Pete is closely linked to *T. rex* publicly and professionally. The Larson brothers came to widespread attention in the wake of the discovery of the deeply and notoriously disruptive *T. rex* Sue. Sue's story has been told extensively elsewhere,²⁸ but it is worth noting that both Larson brothers emerged from their Sue encounter with controversial federal convictions,^{29,30} and without Sue. Stan entered the Larsons' lives around the same time the Sue controversy began. Quoted in the Wall Street Journal, Pete's ex-wife Kristin Donnan said, 'Stan did what Sue couldn't do: It broke up the family.'³¹

²⁵ Fiffer 2001

²⁶ We use the Larson brothers' first names in this paper to avoid confusion and to mirror the relevant court documents.

²⁷ See <https://lpfossils.com>

²⁸ See Donnan and Larson, 2002, Fiffer 2001, Jones 2020

²⁹ Neal Larson was convicted of a misdemeanor. Pete Larson was convicted of two misdemeanors and two customs-related felonies, all of which were not directly related to Sue.

³⁰ Neil 2005

³¹ Quoted in Crow 2020

In 2012³² Neal was suspended then fired from the BHI for personal reasons that are not clear, public, or agreed upon by all humans involved. Neal responded by filing a lawsuit demanding that the BHI be liquidated so that he could leave with his 35% share of the company's assets. The Court ruled that Neal's shareholder rights had been violated and he was due his share of the fair value of the BHI on the day he was fired. But what was BHI's value? Most of the company's assets were in the form of fossils, particularly Stan, and Stan, like other *T. rex*, resisted being defined. What was Stan's value?

After several more years of wrangling about value in court filings, all parties went before a judge in early 2018. Central to courtroom discussion was Stan's value. One of the defendants, Robert A. Farrar who had conducted the valuation of Stan and other assets for the BHI, placed Stan's value at \$2 million USD, noting this is how much Stan was insured for. He conceded that if something happened to Stan, \$2 million USD 'would not get the Institute another tyrannosaurus rex'. He also agreed that Stan was 'probably' worth more than \$2 million USD. Farrar ultimately stated that he did not know what Stan would sell for 'because Stan has never been sold'. Neal, who had conducted his own valuation of BHI assets, had valued Stan at \$6 million USD, based on a valuation that the BHI had received for Stan in 2010 from Bonhams & Butterfields auction house; they had sought that valuation to provide backing for a loan. However, in court Neal testified that he believed he could sell Stan for \$10 million USD within a year, which implied that the BHI's had undervalued themselves and also undermined his own \$6 million USD figure. The Court was getting confused.

Nearing the end of this hearing and according to court records, Pete suggested that the BHI just give Stan to Neal, something no one had suggested previously in court.³³ Documents subsequently filed by the BHI in favour of this Stan solution present it as the best of all options. The BHI argued that no matter whose valuation of the BHI, and of Stan, is correct, Stan's value would represent more than the 35% that Neal was due. Reading between the lines of this filing, it seems that the BHI did not believe that Stan could truly command \$10 million USD as Neal had testified. For example, the BHI's 19 March 2018 post trial brief ended with the dismissive 'Neal says that, within a year, he could sell Stan for about \$10,000,000. Let him do so.' The court awarded Stan to Neal with the understanding that Stan was worth about \$6 million USD.

The reason the BHI was keen to solve the dispute by giving Stan to Neal was that no matter how much the company was valued for, the BHI did not have enough cash on hand to pay Neal's 35%. BHI were not keen to liquidate assets because of the tax burden involved, which further underscored the sense that they did not believe in Stan's ability to provoke desire among buyers. If Stan only drew \$6 million USD (or \$2 million USD in the lower estimate) from a buyer, after taxes were deducted the BHI still would not have enough money to pay Neal's 35% and they would have to sell more fossils to make up the difference and eventually leading to the end of the BHI. Handing over Stan in lieu of \$6 million USD was their best financial choice, or so the BHI thought. But Stan was not having that.

Here we remind the reader that Stan did not sell for \$6 million USD or even \$10 million USD, but \$31,847,500 USD. The results of the Christie's sale were shocking and, once again, disruptive. Charismatic 'bad ass' Stan defied the \$6 million USD valuation and, instead, provoked a 'feverish 20-minute bidding war' among prospective buyers,³⁴ with Abu Dhabi evidently emerging as the winner. The amount that Abu Dhabi paid for Stan is significantly

³² Details about this case, Neal Larson v. Black Hills Institute of Geological Research, Incorporated, a South Dakota corporation, Peter L. Larson, Robert A. Farrar, Matthew P. Larson, and Samuel T. Farrar, 51CIV15-000725, are drawn from public court documents from the Seventh Judicial Circuit Court, Pennington County, South Dakota.

³³ Pete Larson has since said that giving Stan to Neal was the BHI's lawyers' idea (e.g., quoted in Jacobs and Small 2022b).

³⁴ Sharp 2020

higher than any value proposed in court and represents more than what the entire BHI was valued at; it was much more than Neal's 35% share. If the BHI had liquidated Stan, even after auction fees, taxes, and a possible court re-evaluation of the BHI's value (and thus what Neal was owed), the BHI may have come out with a few million extra dollars. Stan was not making this easy.

Nothing changed about Stan between the court valuation and the Christie's sale. Rather Stan, the disruptive *T. rex*, undermined the court's ability to accurately assess value and apparently tricked the people it was most connected to into believing it was worth less than it was. While we do not know how the Larson brothers feel about the financial outcome, both the court documents and later media quotes make clear that neither brother ever wanted to part with Stan. The relationship both brothers had with this *T. rex* was clearly deep and meaningful, but ultimately caused them problems. As a *T. rex*, Stan existed beyond value and beyond valuation, acting on the court and the market in such a way to cause unpredictability and confusion. Stan did not allow itself to become a precedent for *T. rex* value determination, and when the next *T. rex* seemingly inevitably ends up in a courtroom there is no clear way for a court to assess value. That *T. rex* is likely to resist as well.

As a slight aside, in this case the Court had to deal with the personification of Stan, or rather the linguistic consequences of the deep relationship the Larson brothers had with Stan. In one document it is noted that 'The parties generally refer to this skeleton as 'Stan,' so that is how the Court will refer to it', committing to a familiarity that is present in the Court's use of first and nicknames in referring to Defendants and Plaintiff. While the Court usually refers to Stan as 'it' (as we do in this paper), at one point they state, 'The value of the Institute is largely controlled by the value of Stan, *who/which* is the Institute's most valuable individual asset' (emphasis added). Whoever was preparing the Court document folded in the face of Stan's assertive agency, allowing the possibility that Stan is an active 'who' with the ability to control.

Meet Peck's Rex: 'You can't pirate a *T. rex* copyright and not expect to get bitten'

This is not the first time that Stan's lure and value disrupted human actions and landed everyone involved in court. Recalling Johnson's purchase of a replica of Stan's skull, Stan can provoke human dispute beyond issues of direct physicality. Like Trix, who rejected being easily classified as a mineral, Stan rejects being easily classified as just a fossil and promotes a version of itself that results in a fragmentation of ownership and value for the humans that interact with it. Stan's rejection of purely dinosaur status is tied to Stan's interactions with yet another disruptive *T. rex*, Peck's Rex.

In July 1997 Peck's Rex was unearthed by a team lead by palaeontologist J. Keith Rigby near Fort Peck, Montana.³⁵ The land had originally belonged to Steve Walton who defaulted on a federal loan in around 1994. This caused the United States Government to repossess the land, but the Walton's still lived on the land as tenants.³⁶ The Waltons maintained a feeling of ownership of the property even after Government foreclosure. After Peck's Rex was located this uneasy situation was thrown into chaos. Peck's Rex, and particularly Peck's Rex's relationship with the *T. rex* Sue, appears to have caused the Waltons to act in apparent violation of the law. On 9 November 1997 Rigby was quoted 'That single sale (of Sue) has done more damage to professional dinosaur research than probably anything that's happened in the last 50 years. And it was unintentional'.³⁷ While we might agree that Sue did not have intentionality, Sue had (and has) the ability to disrupt.

³⁵ Brown 2022

³⁶ Murr 1997

³⁷ quoted in DeAgostino 1997

Following its divisive and disruptive interactions with numerous people, Sue was sold at public auction for \$8.36 million USD on 4 October 1997,³⁸ provoking extensive media comment in the lead up to the sale. A few weeks before the Sue sale, Rigby had left the excavation site with much of Peck's Rex still in the ground, intending to resume excavations during the next field season.³⁹ On 13 and 14 September 1997, just when pre-auction media reporting on Sue was escalating, one of Rigby's contacts in Montana informed him that a group of men with backhoes, believed to be the Waltons and friends, had prised part of Peck's Rex's jaws from the ground and removed other bones from the site.⁴⁰ If true, this amounted to trespassing on federal land and theft. Rigby reported the Waltons to the FBI.⁴¹

Until late summer of 1997, Rigby was under the impression that the land in question was owned by the Waltons. The Waltons had told Rigby that they were the landowners, and several members of the family worked with Rigby on the fossil dig. A land title search, possibly conducted because of the details of the disruptive ownership dispute surrounding Sue, showed that the land in question was actually owned by the Farm Services Agency,⁴² something the Waltons were aware of. However, particularly following the *T. rex* discovery, the Waltons appear to have considered themselves the owners of the land after all, their claim stemming from ideas of squatter's rights and the so-called 'Freeman on the land' movement that rejects U.S. Government sovereignty over, among other things, land rights.⁴³ The Waltons believed they had a prior and significant relationship with Peck's Rex, who was an occupant of the land that they had a long-standing use-claim to. If Peck's Rex was valuable like Sue, the Waltons reasoned that the value belonged to them. Rigby stated the Waltons 'had visions of millions of dollars' (quoted in Brown, 2022). Peck Rex lured them back on to the land they had lost.

The Waltons taking parts of Peck's Rex does not appear to have been a decision made in the moment, rather it involved planning. The Waltons had hired Nate Murphy, who at the time was operating the private Judith River Dinosaur Institute in Montana, to help remove Peck Rex's jaw from the ground. Murphy later claimed that he agreed to participate because he thought the Waltons owned the land, but mostly because the Waltons told him they were going to remove the dinosaur no matter what and he wanted to minimise harm to the *T. rex*.⁴⁴ Murphy would later be convicted of felony theft in an unrelated case for the removal of a raptor fossil from a ranch in northern Montana. He would also earn a federal conviction for the 1994 removal of a *Brachylophosaurus* (named Elvis) from Bureau of Land Management (BLM) land, as well as for digging for and removing fossils from two other BLM-owned locations, one of which Murphy had named 'Sue 2'.^{45,46} Fred Walton was quoted as saying that they hired Murphy to remove the jaw to 'cover our butt'.⁴⁷

News reports published immediately after the theft recount community members trying to prevent the Waltons from taking parts of Peck's Rex, and the Waltons (and perhaps the community members) 'brandishing rifles'⁴⁸ and making 'veiled and not-so-veiled threats'.⁴⁹

³⁸ Fiffer 2001

³⁹ Brown 2022

⁴⁰ Brown 2022

⁴¹ Brown 2022

⁴² The FSA is an agency within the United States Department of Agriculture; some reports state that the USDA was the owner of the land.

⁴³ DeAgostino 1997

⁴⁴ Hecht 1997

⁴⁵ Not, as it turns out, named after Sue the *T. rex*, but after the woman who discovered the site. Sue, the *T. rex*, was also named for the woman who discovered it, but that was a different Sue.

⁴⁶ The United States Attorney's Office 2009

⁴⁷ See Murr 1997

⁴⁸ Deseret News 1997

⁴⁹ Brown 2022

The local sheriff's office intervened, and around 27 September 1997, just days before the Sue sale, Peck's Rex's jaw was returned anonymously to the FBI.⁵⁰ Almost all reporting of Peck's Rex's theft and recovery reference Sue, and Rigby said that 'the sale of 'Sue' caused my problems. The two cases are inextricably linked'.⁵¹ The relationship between those *T. rex* fossils and humans, and more importantly between the two *T. rex*, created an entangling web of intense desires (a desirescape, see below), that caused humans to commit crimes, caused Rigby's problems, and caused a buyer to pay a lot of money for Sue. But what is Stan's role in this case? This is where both Stan and Peck's Rex, separately and together, continue to disrupt human trajectories.

After the dust had settled on the Peck's Rex theft, and after Peck's Rex was extracted entirely from the ground, the *T. rex* skeleton was found to be about 60% complete; good for a *T. rex* but not quite up to the standards that a *T. rex*'s museum-going human fans demand. In particular, Peck's Rex was missing a right leg, and other *T. rex* specimens were leaned on to provide the missing parts, with Stan being a primary donor in this case.

According to a lawsuit filed by the BHI in 2010,⁵² Fort Peck Paleontology Inc, a company tasked with preparing Peck's Rex for display in the Museum of the Rockies in Bozeman Montana, borrowed copies of parts of Stan and Sue from the BHI. They then made copies of these Stan part copies and inserted them into Peck's Rex, producing the appearance of a complete skeleton (figure 4). Fort Peck Paleontology Inc. then proceeded to sell replicas of Peck's Rex with replicas of Stan's replica parts included to, among others, the Carnegie Museum of Natural History in Pittsburgh, the Wyoming Dinosaur Center, and the Maryland Science Center.⁵³ The Carnegie Museum's Peck's Rex/Stan hybrid is positioned in such a way that it looks like it is fighting the museum's true fossil *T. rex* skeleton, the unsatisfyingly named CM 9380 which was the first *T. rex* ever found.⁵⁴ Here, again, we have two *T. rex* (or three if you count Stan) working together to create desire to lure human visitors into the museum.

Fort Peck Paleontology Inc. argued that the casts of Stan they borrowed from the BHI and the subsequent further Stan casts they placed in Peck's Rex were exact replicas of natural objects and could not be copyrighted by anyone.⁵⁵ The assertion that a *T. rex* is a natural object might seem uncontroversial, but the disruptive Stan resisted this easy classification. The BHI presented evidence that they had spent thousands of hours excavating and preparing Stan and that Stan's contemporary appearance bore little resemblance to the fossil initially found in the ground. Stan, then, had transformed into an artwork through prolonged interaction with humans, and thus the intellectual property of Stan was something separate from Stan the fossil (or the physical object); it was copyrightable. Lawyer Luke Santangelo, representing the BHI quipped, 'You can't pirate a *T. rex* copyright and not expect to get bitten'.⁵⁶

But once again the *T. rex* refused to be classified. In 2012, the lawsuit ended in an undisclosed settlement that left BHI's copyright of Stan undisputed but unclarified. As the Associated Press put it, 'The question of whether renderings of ancient dinosaurs can be

⁵⁰ Hecht 1997

⁵¹ quoted in Monastersky 1997

⁵² Black Hills Institute of Geological Research, Inc. v. Fort Peck Palaeontology, Inc. et al, CV-10-76-GF-SEH (D. Montana, Great Falls Division)

⁵³ Auction Central News 2012

⁵⁴ It seems unfair that CM 9380 does not have a name. Perhaps its name is simply *T. rex* because, as the holotype, all other *T. rex* specimens are definitionally defined in relation to that one. So too are fossils that are excluded from being *T. rex*, with the related loss of value that would come with it. This is another aspect of a network of *T. rex* relationships creating and mediating desire in humans.

⁵⁵ Santangelo Law Offices, P.C n.d., see: <https://idea-asset.com/tyrannosaurus-rex-lawsuit-settled/>

⁵⁶ Santangelo Law Offices, P.C n.d., see: <https://idea-asset.com/tyrannosaurus-rex-lawsuit-settled/>



Figure 4. Photo of part of Peck's Rex, now going by the name Montana's *T. rex*, in the Museum of the Rockies. Only the darker parts are actual fossils. Photo by Tim Evanson (CC By-SA 2.0; <https://www.flickr.com/photos/timevanson/27511202462/in/photostream/>).

copyright protected as original 'art' remains unresolved'.⁵⁷ The disruptive Stan is possibly art or possibly not in a courtroom and beyond. We humans still do not know what Stan or its intellectual property is. Of related interest, in the resolution of the previously discussed Stan lawsuit between Larson brothers, Neal was awarded (and sold) Stan the physical object, but the BHI retained Stan's intellectual property rights. The sale of Stan to Abu Dhabi did not come with clarified rights to reproduce Stan. It will be interesting to see if Stan causes problems related to that point in the future.

Meet Shen: Disrupting the Desirescape

Our treatment of *T. rex*, including our championing of their human-style names, is in part experimental: a way to externalise the apparent pull these objects exert and, by extension, how that pull relates to dispute and crime. We acknowledge the difficulty in ascribing agency to objects, particularly in criminological circles where object agency has been poorly explored, even in a construction where agency does not imply intentionality. Meaningful actors who have no intentionality, no rationality, no sentience, but that rest beyond human control fall outside of most criminological framings. Perhaps a useful way to consider the disruptive power of *T. rex* might be through the metaphor of a massive star that can disrupt the trajectory of smaller space objects, pulling them into their gravity well. The star causes those objects to permanently enter orbit, or to destructively crash into the surface. Pushing the metaphor further, a binary star system would have an even bigger gravitational pull, with the two stars working together to suck more stuff in. The stars are not acting with

⁵⁷ Auction Central News 2012

intentionality, but they certainly are acting on the things they pull in, changing the pathways that the space objects follow and, at times, destroying them.

We propose that as disruptive objects, *T. rex* exerts a comparable intentionless agency as those stars, a comparable ability to force people and objects into their orbit, to force networks to be created around them, and to force humans to act. We do not believe that this must occur at a fundamental level for humans to be affected. Even if the affective qualities of *T. rex* exist within a wholly social strata that humans ultimately create and maintain, we can still consider that strata as it manifests and how it affects human behaviour. We should document human pathway changes following encounters with disruptive objects as real and meaningful experiences without getting too hung up on the fundamental questions of “what is reality”. What matters is our experience of reality, and we humans can experience a *T. rex* as disruptive without the *T. rex* needing to be executing a calculated plan.

Tyrannosaurus rex translates to ‘King of the Tyrant Lizards’ and this is a fitting name for such a disruptive object. Webster’s 1890 Dictionary, an edition that was likely on hand when humans first encountered and then named a *T. rex*, defines a tyrant as ‘An absolute ruler; a sovereign unrestrained by law or constitution; a usurper of sovereignty’. By linguistic coincidence, this is what we see *T. rex* doing in the cases discussed above. *T. rex* consistently usurps the sovereignty of the courts, is unrestrained by law, and resists having itself or its value defined. *T. rex*’s tyranny stems from its deeply agentic nature, an ability to act on humans and cause humans to act while remaining ‘unrestrained’ by the law and by what humans want from *T. rex*. Yet none of these *T. rex* specimens truly acted alone, rather they drew upon pre-existing relationships between themselves (so other *T. rex* specimens), other fossils and objects, and humans to profoundly affect the ways that humans interact with the fossils and each other.

In 2021 we presented the idea of a *desirescape*, ‘where a spatial array of myriad agentic objects cultivates desire among people to collect, own, possess, and show off artworks’ and we embedded the concept of *desirescape* within wider object theory.⁵⁸ Where the humanist viewpoint has traditionally seen ‘objects, things, artefacts and technologies’ as essentially ‘quasi-inert “in search of meaning” entities’,⁵⁹ the posthumanist viewpoint of the *desirescape* sits within what has been called ‘the material turn’ in the social sciences, which ‘has questioned the basic assumption of... the ontological priority of the human subject over any other entity in the sense-making process’.⁶⁰ We saw desirable objects and their networks as having a form of ‘secondary agency’ in which the objects and their material context generate new patterns of social effects: people, we argued, create object networks that take on lives of their own. These networks develop organic properties that result in a semi-independence from the forces that made and continue to attempt to manipulate them. This is a further step in the direction of object agency from the now conventional view that ‘even though from a theoretical point of view human actors encode things with significance, from a methodological point of view it is the things-in-motion that illuminate their human and social context’.⁶¹ This is also a move towards ‘interobjectivity’: a world in which objects are also subjects, enjoying meaningful ties with other material things which influence their function or social meaning.

Within a *desirescape*, objects interact with each other in complicated and alluring ways, exerting power over people. These objects have agency in that they provoke humans to act

⁵⁸ Yates and Mackenzie 2021, p. 131

⁵⁹ Caronia and Mortari 2015

⁶⁰ Caronia and Mortari 2015

⁶¹ Appadurai 1988. We, of course, draw heavily from ideas such as ANT (e.g., Latour 2005, 1996) and assemblages (e.g., Deleuze and Guattari 1987), and especially the concept of *lawscape* (Philippopoulos-Mihalopoulos 2014).

and have a profound effect on human trajectory. We argue that *T. rex*, as charismatic objects of lure and desire, form part of a desirescape where multiple *T. rex* specimens interact with each other and with other cultural manifestations of dinosaurs to draw humans in. The increased footfall that Naturalis expected from the purchase of Trix, the staggering sum of money that Abu Dhabi was willing to pay for Stan, Dwayne ‘The Rock’ Johnson’s purchase and display of a Stan replica, and Sue’s 80 thousand social media followers are all human reactions to the desire these interconnected *T. rex*’s command from us.

It is with *T. rex* ability to command that we seek to take the concept of desirescape further. Previously we noted that in the case of art sales, we could see “people caught up in a web of objects that are affecting to the point that they not only generate and manipulate desire, but they disturb reason.”⁶² We propose *T. rex* as intense reason disturbers, as disruptive objects within the desirescape. They are objects that are so profoundly agentic and so deeply desire provoking, that they exert a catastrophic force on the people and other objects that they form relationships with. They cause problems. Big ones. Almost always. They dominate the network, making everything and everyone else react. The desirescapes that they create and contribute to are intense.

It is within this concept of a disruptive object in a desirescape that we introduce Shen. Shen is around 54% (by volume) of a *T. rex* skeleton⁶³ that happened to be advertised for sale at Christie’s auction house when we started preparing this article. Shen was being sold as lot 23 in Christie’s Hong Kong’s 30 November 2022 ‘20th/21st Century Art Evening Sale’, which seems anachronistic if Shen is only or primarily a fossil. But as a disruptive object that defies definition, Shen has entered a space for art as art. By doing so, Shen forcefully draws upon the affective object/object associations that stem from the physical placement of a fossil with ‘high value’ art. On the block, Shen was to be offered between paintings by Pat Steir and Jonathan Gardner that were painted in 2019 and 2017 respectively. The placement of Shen among contemporary artworks (figure 5) is directly parallel to the placement of a 19th century Gabonese sculpture among contemporary artworks offered at Sotheby’s June 2020 ‘Contemporary Art Evening Auction’, through which we originally argued for the existence of affective desirescapes.⁶⁴ Just as the Gabonese head drew on the contemporary artworks to reaffirm value and provoke desire in buyers, Shen attempted to draw upon similar contemporary artworks to the same ends.

Yet perhaps the directionality would have different in this case; perhaps Shen could assert dominance in the desirescape that was created. Shen, as a disruptive object, might have been the primary actor in the object network of this auction. Even before the sale, Shen provoked market, media, and academic response;⁶⁵ Shen caused people to act. Perhaps Shen’s lure could have brought buyers into the auction’s desirescape, trapping them there and encouraging them to buy. Only one buyer could have emerged with Shen, but Shen’s other fans might have ended up leaving with some purchased paintings.

The disruptive qualities of Shen and other *T. rex* specimens are apparent in the promotional materials accompanying the sale. So too are the desire-provoking associations

⁶² Yates and Mackenzie 2021, p. 131


⁶³ By some estimates, Shen is about 28% complete by bone count. The validity of the ‘by volume’ metric has been questioned by numerous palaeontologists, one of which said it was the “oddest [...] metric for an auction fossil I’ve ever heard of” (personal communication, 2022). The implication being made is that ‘by volume’ allows a seller to use a higher percentage than if they measured completeness by number of bones and thus increasing market appeal. Statements made during a press conference for the 2023 auction sale of the *T. rex* Trinity that one of the authors attended indicated that 50% complete was “the magic number” for buyer desirability, with sellers attempting to portray their *T. rex* specimens as at least that complete by whatever measure is available.

⁶⁴ Yates and Mackenzie 2021

⁶⁵ Benzine 2022

↑ 20th/21st Century Art Evening Sale
Registration Closes: 16 days


REGISTER



LOT 22
PAT STEIR (B. 1940)
Untitled II, 2019 (Taipei)

Estimate
HKD 2,300,000 - 4,000,000


FOLLOW



LOT 23
TYRANNOSAURUS REX
MONTANA, USA

Estimate on request

FOLLOW



LOT 24
JONATHAN GARDNER (B. 1982)
Suits and Flutes

Estimate
HKD 500,000 - 1,000,000

FOLLOW

Figure 5. Lot 23, Shen, among contemporary paintings. Website of Christie's 20th/21st Century Art Evening Sale (<https://www.christies.com/en/auction/20th-21st-century-art-evening-sale-29078/browse-lots>). Screenshot taken by Yates, 14 November 2022.

between Shen and some of the other disruptive *T. rex* specimens discussed above. The intoxicating and alluring interplay between disruption and desire appears to be the primary draw that Christie's was relying upon to attract buyers.

Looking at the Shen sales promotional site (figure 6) as it was available online on 14 October 2022,⁶⁶ we were presented with several quotes from Dr. John R. Nudds, an academic, as well as other marketing wording. Below information about where Shen could be viewed in advance of the sale (first in Singapore then in Hong Kong), Nudds is quoted as saying '*T. rex* are incredibly rare. Just one in 80 million *T. rex* dinosaurs was preserved as a fossil. Only two have ever sold at auction.'⁶⁷ Here Shen's value was drawn from its relationship with 80 million other *T. rex* that did not manage to survive as fossils. Shen was also provoking desire through its association with the limited market supply of *T. rex*, specifically two other relatively complete *T. rex* that were previously offered at auction: disruptors Sue and Stan.

Shen's association with Sue and Stan, and the desire these relationships provoke, is on display further down the page in a section entitled 'Naming Rights' (figure 7). While

⁶⁶ Christie's 2022

⁶⁷ He is referring to Sue and Stan, but this is not accurate. Besides various teeth and other parts, Barnum the *T. rex*, for example, was sold by Bonhams and Butterfields in 2004 for \$93,2500. The circumstances of that sale are questionable and perhaps Barnum, which was subject to litigation and a 'low' price result, was too disruptive to mention (see Associated Press 2004).

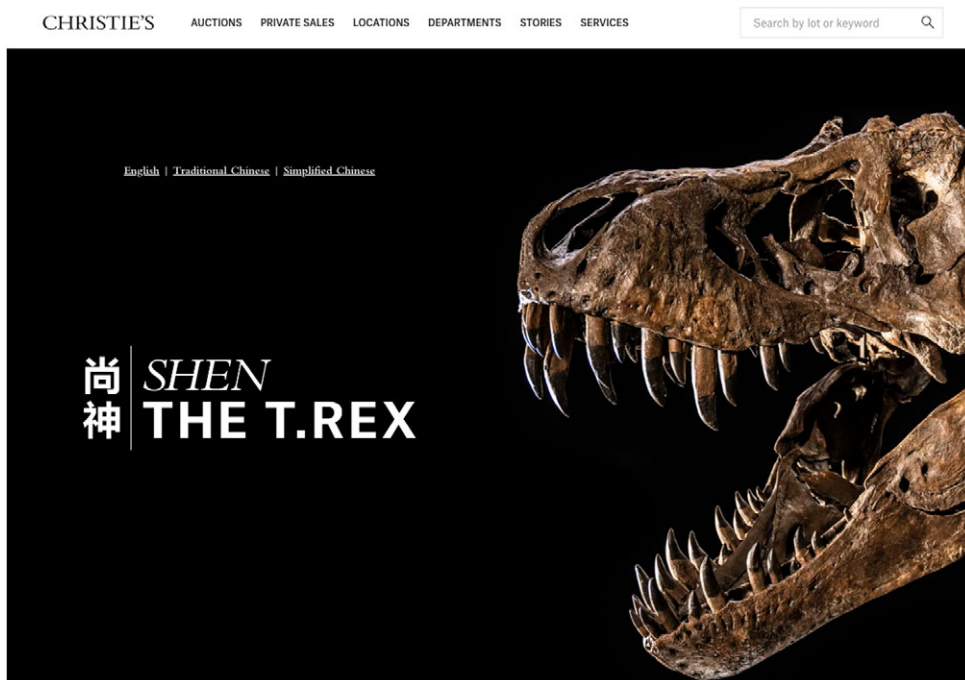


Figure 6. The Shen promotional page on the Christie's website (https://www.christies.com/features/shen-the-t-rex-12448-7.aspx?sc_lang=en) Screenshot taken by Yates, 14 October 2022.

Christie's assured buyers that whoever goes home with the fossil can re-name Shen, they state that Shen 'beginning with 'S', follows in the footsteps of the only two t.rex 'Stan', auctioned by Christie's New York in 2020 (\$31.8m) and 'Sue' in 1997 (Sotheby's \$8.3m).⁶⁸ S-name Shen, then, is further tied to disruptive Sue and Stan, borrowing on their fame and the price tags they inspired. However, Stan's disruptive qualities risk upending the desire-escape here, and Christie's reassures that the 'buyer will, along with the specimen, acquire all the intellectual property rights to the fossil'. Stan's buyers, of course, did not acquire Stan's IP and the auction house is clearly trying to harness Stan while limiting the damages the disruptive fossil might cause.

An astute reader will note that we write about Shen in the past tense but without a sales result. What we originally considered to be the final draft of this paper included the line "we cannot yet determine what sort of disruption Shen will cause to the humans that interact with it". However, we were forced to edit that statement on 20 November 2022 when headlines blazed that "Christie's Pulls T. Rex From Auction".⁶⁹ Right as we were originally submitting this work, Shen revealed itself as a disruptive object. As noted above, Shen is only part of a *T. rex* skeleton and Pete Larson has stated that the rest of Shen is...casts of Stan. In an echo of the Peck's Rex/Stan case described above, it is alleged that Stan has served as an unauthorised bone donor to Shen, and that someone appeared to be "using Stan to sell a dinosaur that's not Stan".⁷⁰ Once again, the relationship between two *T. rex* skeletons and

⁶⁸ Rendered like the original. The authors note a surprising number of typos on the Christie's promotional page for Shen, a lack of attention to detail which did not seem to match Shen's price estimate.

⁶⁹ Jacobs and Small 2022a

⁷⁰ Pete Larson quoted in Jacobs and Small 2022a

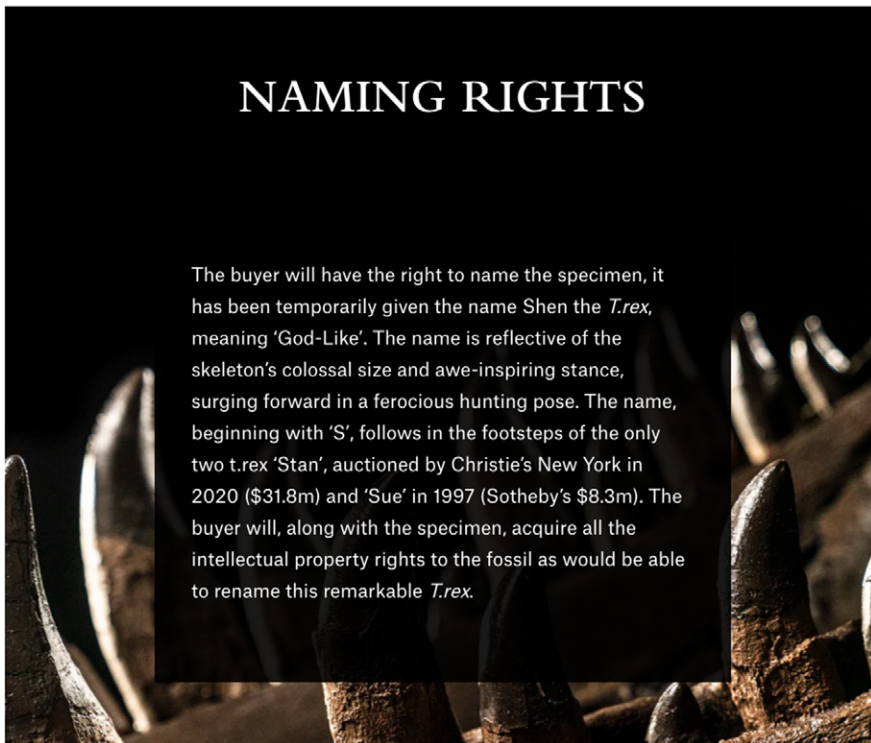


Figure 7. 'Naming rights' and intellectual property on the Shen promotional website (https://www.christies.com/features/shen-the-t-rex-12448-7.aspx?sc_lang=en) Screenshot taken by Yates, 14 October 2022.

between those skeletons and people has caused significant disruption, upending a high stakes auction, and causing we authors to rewrite this section. Yet, when considering *T. rex* as disruptive objects, this outcome was entirely predictable.⁷¹

From Hells Creek to Court: Closing Thoughts and Maximus

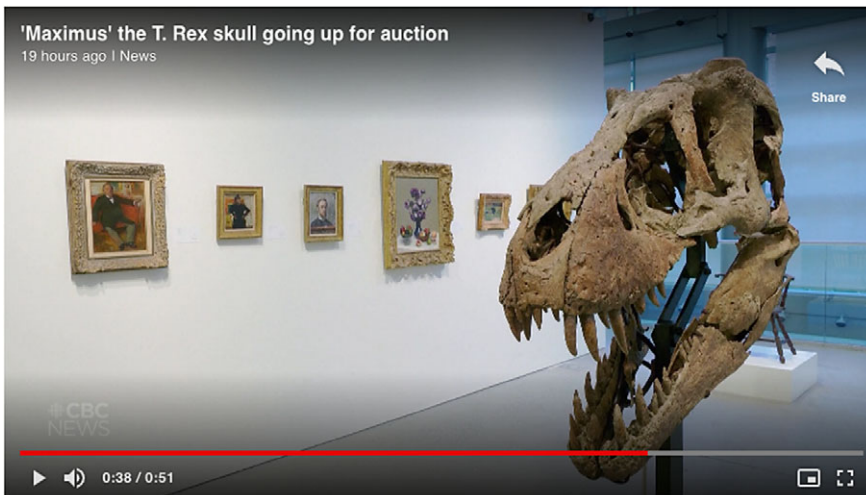
In some respects, the *T. rex* specimens in this article were chosen at random. Stan, Peck's Rex, and Trix were the first *T. rex* computer folders (of many) that one of the authors happened to open on her desktop; Shen made its appearance while the authors were emailing each other about this work; and Sue is always lurking around the corner. We could have discussed, instead, Barnum who was sold at auction in 2004 (or maybe not!) and who, in the course of extensive litigation, 'generated many, many boxes of documents in three states'.⁷² We could have discussed Darwin AKA Victoria who provoked a lawsuit by its own refusal to be defined: was Darwin/Victoria 'prepared' or 'unprepared' when it was sold, the answer would mean more or less profit for the people the *T. rex* interacted with.⁷³ We could have discussed Tinker, found on county-owned land that had been leased, but whose presence in the land and knowledge about that presence threw the lease and Tinker's ownership into dispute.⁷⁴

⁷¹ There are significant but not-yet public updates to Shen's disruptive qualities that we hope to discuss in subsequent publications. Suffice to say, a group of *T. rex* have caused disruptions of various kinds once again.

⁷² Madigan 2004

⁷³ Kozma 2020

⁷⁴ United States District Court, District of South Dakota, Western Division No. Civ. 04-5075-RHB



'Maximus' the T. Rex skull going up for auction

19 hours ago | News | 0:51

One of the most complete *Tyrannosaurus rex* skulls ever found is going up for auction at Sotheby's in New York. The fossil of one of the most vicious predators of all time was found in South Dakota.

Figure 8. Screenshot still of video of Maximus on display at Sotheby's New York with paintings in the background (<https://www.cbc.ca/player/play/2105101891683>). Screenshot taken by Yates, 9 November 2022.

After that was settled, Tinker continued to cause problems, being subject to bankruptcy litigation related to the *T. rex*'s partial preparation.⁷⁵ Perhaps seeking to distance itself from its disruptive reputation, Tinker now goes by the name Rocky and can be seen in the privately owned Dinosaurier Museum Altmühlal in Denkendorf, Germany, and is billed as 'Germany's Scariest Teenager'.⁷⁶ We could have discussed Butch, who now goes by the name Tristan Otto, a *T. rex* that provoked suit by refusing to be as complete as the people who were interacting with it wanted it to be.⁷⁷ We could have even discussed the disrupting dinosaur in the titillatingly named case '*United States v. One Tyrannosaurus Bataar Skeleton*'. It was a *Tarbosaurus bataar* and not a *Tyrannosaurus*, however arguably it was the *T. bataar*'s association with *T. rex* that made it desirable and smuggleable.⁷⁸ *T. rex*, as *Tyrannosaurus*, was able to insert itself improperly into the case name.

Further, Shen's inclusion was coincidental, the *T. rex* having appeared on the market while we were writing, then further disrupting our writing by causing a cancellation of its sale. But that's not the only disruption we faced as our submission deadline loomed. As an indicator of the *T. rex* ability to disrupt, Maximus appeared. On 9 December 2022, Sotheby's New York offered Maximus (figure 8), a *T. rex* skull which they estimated would sell for \$15 to 20 million

⁷⁵ Langford 2017

⁷⁶ Dinosauria Museum Altmühlal 2022

⁷⁷ United States District Court, Central District of California Case No. 8:17-cv-943.

⁷⁸ ... and made actor Nicolas Cage buy a *T. bataar* skull in a bidding war with actor Leonardo DiCaprio, which he has now returned to Mongolia. Unlike Dwayne Johnson, Cage's skull was a real fossil, (The Guardian, 2005).

USD.⁷⁹ Maximus was presented as coming from the Hell Creek Formation, a geological layer that Sotheby's notes had 'also produced Sue, the first dinosaur ever sold at auction, fetching a record \$8.3 million at Sotheby's in 1997, and Stan, sold in 2020 for \$31.8M',⁸⁰ so again in collusion with Sue and Stan to provoke buyer desire. Continuing our consideration of the desirescape created by placing a *T. rex* among contemporary artworks, footage and images of Maximus offered by Sotheby's and news sources show the *T. rex* as physically surrounded by paintings. Maximus sold for \$6.1 million USD, well below the price estimate that had appeared in the press. In other words, in the wake of the Shen controversy, Maximus defied expectations in the most disruptive way possible: by resisting value and being less desirable than the people around it wanted. As *T. rex*-related disruptions continue in locations around the globe,⁸¹ we can say that these fossils are not giving the authors a break.

T. rex forms relationships with other *T. rex* and with people. Those relationships make *T. rex* extremely desirable, and *T. rex* disrupts human relations by playing upon that desire and subverting human intentions and actions. They are objects that actively cause crimes, resist the law, and undermine the courts. *T. rex* is unlikely to be the only disruptive object out there. There are certainly more objects that have an intense ability to form relationships, create connections, and maintain a desirescape which can inspire humans to take drastic legal, illegal, or social actions. There are likely more objects that seem to cause problems wherever they go, that we humans cannot resist, and that courts cannot control. Identifying these disruptive objects is unlikely to prevent them from causing havoc but may help us better understand the influences at play when we are confronted by and react to their combined lure.

How then should we humans approach *T. rex* and other disruptive objects? Cautiously, and with the knowledge that these objects may be more powerful than we expect.

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⁷⁹ Sotheby's 2022

⁸⁰ Sotheby's 2022

⁸¹ The implications of these will be discussed in future publications.

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