

SUE: The *T. rex* Experience

Exhibition Details

Size: 5,000 ft² (465 m²)

Ceiling Height: 14 ft (4.27 m)

Content Specialists:

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The **core exhibition** features a new, fully articulated cast skeleton of SUE with added gastralium, full-scale replications, touchable models, mechanical and digital interactives, large media elements and videos—including a one-of-a-kind SUE light show—and a gallery-wide soundscape.

The optional **add-on package** contains four cases of real fossils from the Field Museum's collections—including real pieces of SUE and a *Triceratops* skull.

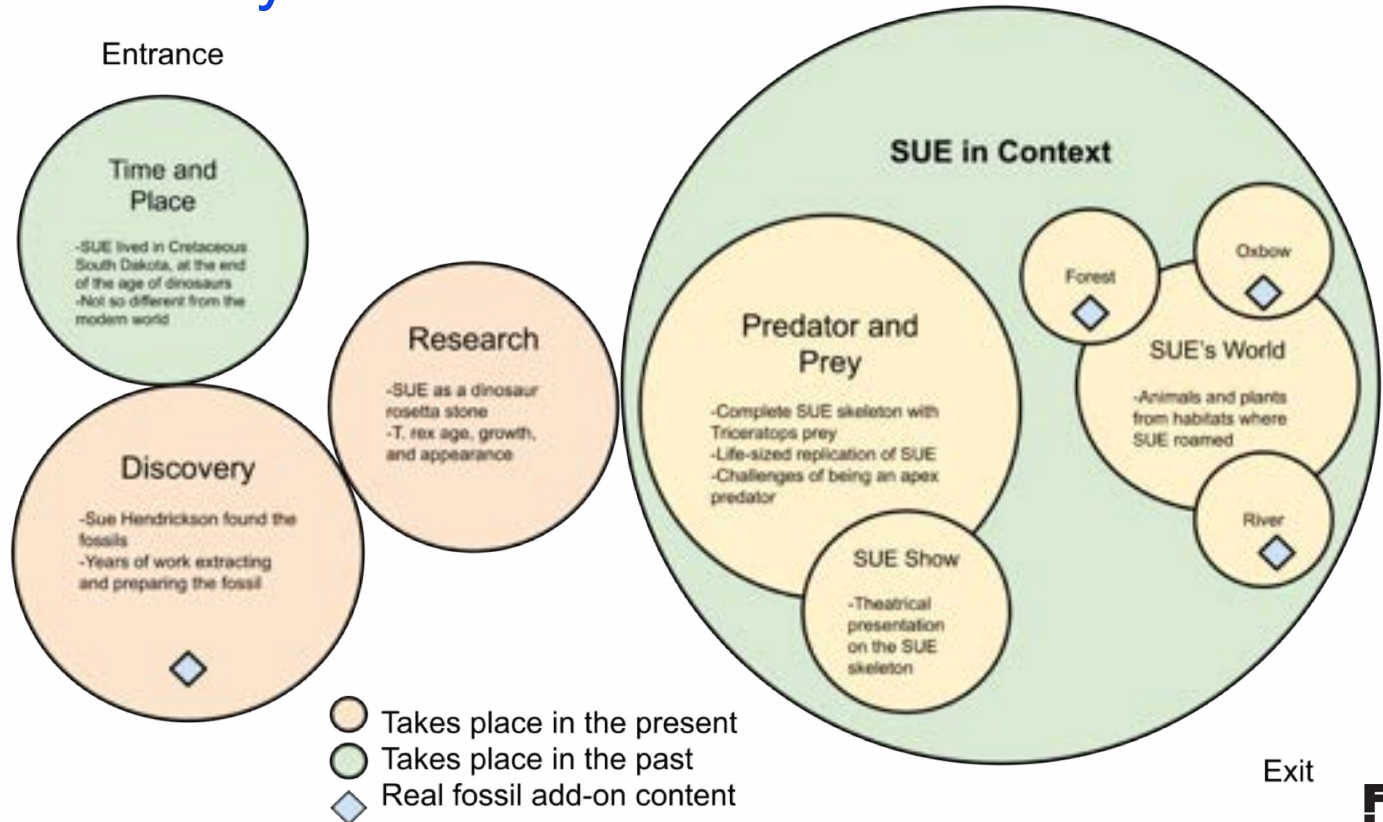
The Big Idea

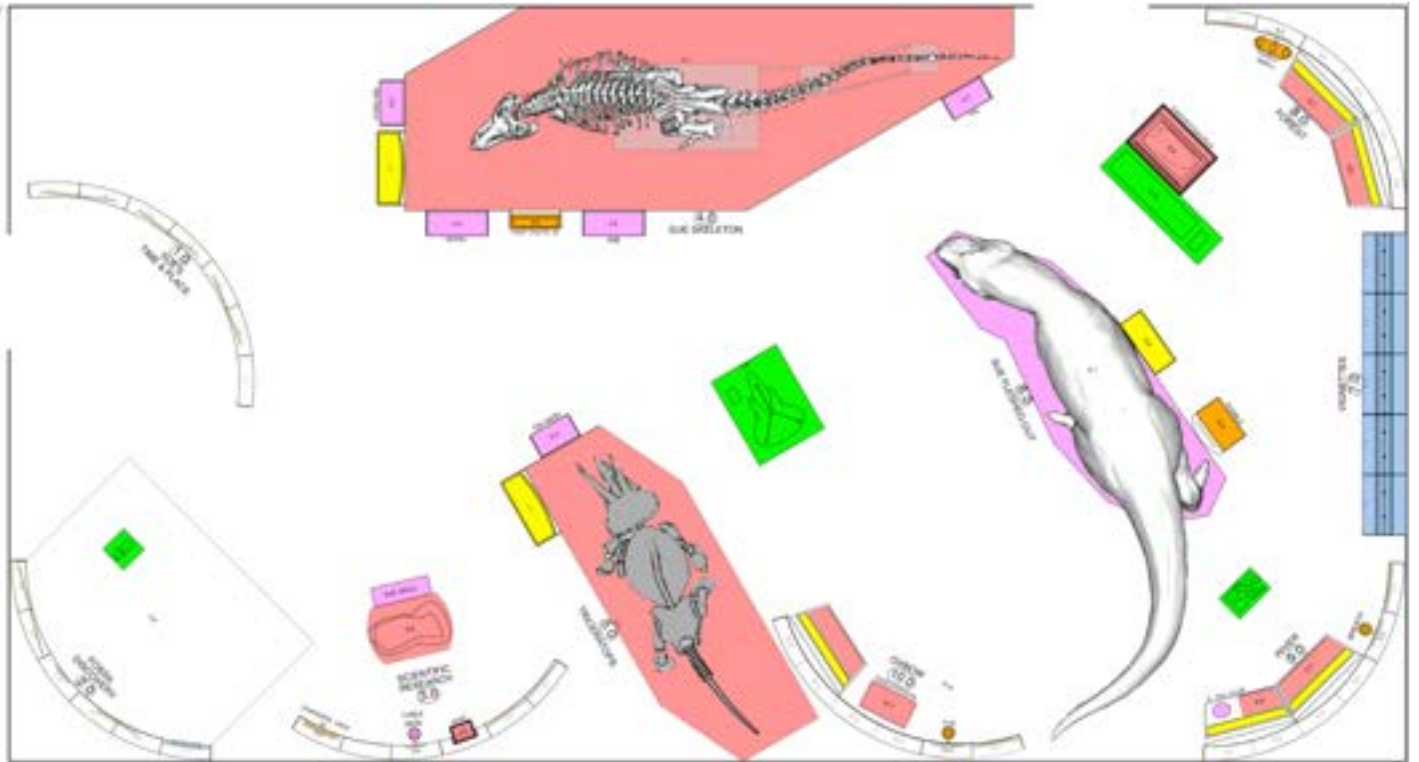
An extraordinary encounter with SUE the *T. rex*, apex predator of the Cretaceous world.

Encounter SUE—the most complete, best preserved *Tyrannosaurus rex* ever found—and the world SUE lived in. *SUE: The T. rex Experience* is a journey through Hell Creek, SUE's home and one of the most well-documented communities from the age of dinosaurs. Visitors will get to know SUE as an individual that lived a challenging and dangerous life, but survived to old age against the odds.

Exhibition Summary

The bubble sizes in this diagram represent the relative weight of sections in the experience.





Section 1: Time and Place



Welcome to the world of Tyrannosaurus rex

Bienvenido al mundo del Tyrannosaurus rex



Visitors entering the exhibition encounter a large, detailed mural of a landscape teeming with life. This is Hell Creek, South Dakota: one of the best-understood ecosystems from the Age of Dinosaurs. Reigning over this world was SUE the *Tyrannosaurus rex*, an apex predator that impacted the entire community. Near the mural, visitors see punchy graphics that establish where and when SUE lived.

Section 1: Time and Place



- Newly commissioned mural of SUE's world by artist Beth Zeiken
- Graphic introduction to time and place: timeline, map, etc.

Section 2: Fossil Discovery



Moving forward in the exhibition, visitors enter a paleontological excavation. Graphic panels tell the story of Susan Hendrickson's discovery of SUE in modern-day South Dakota, and a large photo mural shows the Hell Creek Formation today. Visitors can trek across a life-sized reproduction of the hand-drawn map created at the SUE quarry, and inspect some of SUE's fossilized bones.

Section 2: Fossil Discovery

- Life-sized quarry map on the floor
- *T. rex* discovery media piece
- Graphic timeline of SUE's journey



Section 3: Scientific Research

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Studying SUE

Dr. Peter Donnelly is a leading expert in the study of SUE. He has been instrumental in the discovery and study of this remarkable specimen.



Estudiando a SUE

Dr. Peter Donnelly es un experto en el estudio de SUE. Ha sido instrumental en el descubrimiento y estudio de esta extraordinaria muestra.



3 connected teeth but from the same tooth

This is a very rare occurrence in the fossil record. It is thought that the teeth were joined together by a common root.

0.7 mm wide gap, and 0.1 mm wide gap

The gap between the teeth is very small, but it is significant. It suggests that the teeth were not joined together by a common root.

Did the teeth belong to the same animal?

This is a question that has been debated for many years. The evidence is inconclusive, but it is possible that the teeth belonged to the same animal.



Did SUE have scales or feathers?

This is a question that has been debated for many years. The evidence is inconclusive, but it is possible that SUE had scales or feathers.

¿SUE tenía escamas o plumas?

Esta es una pregunta que ha sido debatida durante muchos años. La evidencia es inconclusiva, pero es posible que SUE tuviera escamas o plumas.



In this section, visitors understand SUE's importance as a research specimen. As the most complete and best preserved *Tyrannosaurus rex* ever found, SUE is a rosetta stone for dinosaur biology. Visitors follow along with recent Field Museum research, including how fast *T. rex* grew up, how old SUE was at death, and why we currently think that *T. rex* had scales, not feathers. A touchable replica of SUE's skull as it was found lets visitors investigate the fossil in detail, including SUE's serrated teeth and holes in the jaw caused by a parasitic infection. Visitors can also test their knowledge with a digital quiz hosted by a quirky cartoon SUE.

Section 3: Scientific Research

- Crushed skull cast, as found in the field
- Baby and juvenile *T. rex* jaw casts
- *T. rex* skin touchable
- Quiz digital interactive
- Graphical overview of research on SUE



The final sections of the exhibition occupy the majority of the floorplan, and visitors can circulate through them freely. A naturalistic soundscape and shifting hall-wide lighting contribute to the dynamic, immersive experience.

Section 4: Predator and Prey







The centerpiece of the exhibition is a 40-foot cast of SUE's skeleton facing off against *T. rex*'s nemesis, *Triceratops*. Pairing SUE with *Triceratops* reinforces SUE's heroic persona: this individual survived longer than any other known *T. rex*, and did so while tangling with huge, imposing prey on a regular basis. Visitors can walk around both dinosaurs, and touch casts of SUE's bones. A digital interactive lets visitors explore 3D models of SUE's injured bones and see how the mounted skeleton has been updated according to new research. A life-sized replication of SUE stands nearby, with a small *Edmontosaurus* dangling from its jaws. Visitors can walk around and touch this detailed model.

Visitors who linger here will be treated to a narrated show. Illuminated bones on the skeleton and dramatic lighting tell SUE's story: this was a top predator that lived a challenging and dangerous life, but survived to old age against the odds.



Section 4: Predator and Prey

- Cast of SUE skeleton
- Cast of *Triceratops* skeleton
- Narrated SUE light show
- SUE vs. *Edmontosaurus* fleshed-out replication



Section 4: Predator and Prey

- Bronze touchables
 - SUE miniature relief
 - SUE arm
 - SUE rib
 - SUE tail vertebra
 - *Triceratops* skin
- Digital rail



Section 5: SUE's World



Winnipeg's Remarkable at the end of an Era

Scientists believe that the end of the age of dinosaurs, the Cretaceous-Paleogene (Cretaceous) extinction, was caused by an asteroid impact that created a massive crater in the Gulf of Mexico. This impact caused a global climate change, leading to the extinction of many species, including dinosaurs.

Life After the Extinction

After the extinction, the landscape was covered in a dense forest of evergreen trees. The climate was warm and humid, and the land was covered in a thick layer of vegetation. The dinosaurs that survived the extinction were able to adapt to the new environment and continue to thrive.



Flowers bloomed in hardwood forests

Life After the Extinction: An Age of Hardwood Forests



Small dinosaurs foraged among the trees

Life After the Extinction: Small dinosaurs foraged among the trees





*What lived in rivers and ponds?
What about on the river banks?*

Armored
Acrosso





Animated scenes of Cretaceous South Dakota play on a giant projection screen, imbuing the space with continuous life and movement. Extended periods of calm are punctuated by exciting moments of dinosaur action. Nearby, visitors can explore SUE's world in detail. Three displays representing the three locations depicted in the animations (forest, river, and oxbow) contain fossils from the animals and plants that lived there. In addition to dinosaurs large and small, visitors meet surprising oddities such as a paddlefish and the opossum-like *Didelphodon*. Visitors can investigate smell stations (a pleasant-smelling cedar forest contrasts with SUE's rancid breath), feel reproductions of dinosaur skin, and sense the infrasonic rumble of a vocalizing *T. rex* at a touch table.

Section 5: SUE's World - Forest

Newly evolved flowering plants changed the landscape—and the herbivores that ate them

Replications:

- *Edmontosaurus* skull cast
- *Pachycephalosaurus* skull cast
- *Anzu* jaw cast
- 3 plant fossil casts

Interactives: *T. rex* rumble table and forest smell station



Section 5: SUE's World - River

Hell Creek was lush and wet,
similar to the American
southeast today

Replications:

- *Ankylosaurus* skull cast (touchable)
- Paddlefish and sturgeon fossil casts
- Turtle skull cast

Interactive: SUE's breath
smell station



Section 5: SUE's World - Oxbow

The nearby inland sea influenced the landscape and fauna of SUE's world

Replications:

- *Didelphodon* skeleton cast
- *Palaeosaniwa* jaw and arm bone casts
- Palm frond cast

Interactive: "*Didelphodon*"
fur touchable



TEST YOUR BLASTING ON THE PLANTING
BANDS CLAP YOUR HANDS BEHIND YOUR EARS
AFTERWARDS THEY'LL GROW UP PLANTING YOUR OWN
BANDS FOR THE FUTURE COME AND VISIT US AT
THE LAY PLANT







Add-On Package

Section 2: Fossil Discovery

Real pieces of SUE:

- “Float” fragments
- Sun-bleached rib



Section 5: SUE's World - Forest

Edmontosaurus articulated tail and fossil leaf slab (“Edmonto-food”)



Section 5: SUE's World - River



Fossils found with SUE

- *Cobbania* and other plant fossils
- *Myledaphus* tooth
- *T. rex* tibia
- *Thescelosaurus* hip
- *Archeroraptor* tooth

Tiny fossils, big stories

- Crocodile armor
- Gar fish vertebra and scale
- Ornithomimid toe bone
- Turtle shell fragment
- Marsupial partial jaw

Section 5: SUE's World - Oxbow



Triceratops skull



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