

Audio Tour | Juneteenth & the Bulletins of George Washington Carver

1 - Stanley Field Hall

Jacob

Welcome to the Field Museum; I'm Jacob, Manager of Visitor Services.

Bethany

And I'm Bethany; the Diversity, Equity, Access & Inclusion Coordinator. We're standing here in Stanley Field Hall on the main level of our 100-year old building, which resides on the ancestral homelands of the Ojibwe, Odawa, and Potawatomi.

Jacob

But the history of the Field Museum goes back further than the foundations of this building. The seeds of our collections were first planted at the 1893 World's Columbian Exposition. While the World's Fair marked 400 years since the arrival of Christopher Columbus in the Americas, it had also been nearly 30 years since the abolition of slavery in the United States.

Bethany

But if you were one of the 27 million visitors who attended the Fair that year, you'd be hard-pressed to find that story on display.

Jacob

On the north end of Stanley Field Hall, just over the shoulder of Máximo the Titanosaur, there's a flag hanging from June 19th through the fourth of July.

Bethany

That's the Juneteenth flag, which commemorates the end of slavery in 1865 and the beginning of reconciliation for enslaved Americans and their descendants.

Jacob

Last Juneteenth we told the story of *African American Representation at the 1893 World's Fair* through three famous figures from history.

Bethany

In the Grainger Science Hub, we brought the Haitian Pavillion to life through objects, specimens, and documents from our library.

Jacob

At the Haitian Pavilion, Frederick Douglass delivered a speech that celebrated the Haitian people while criticizing the United States for slowing progress after the abolition of slavery both in Haiti and at home.

Bethany

We heard from Michelle Duster, the great-granddaughter of Ida B. Wells and a historian, author, and activist herself.

Jacob

At the Fair, Wells distributed a pamphlet that she, Douglass, and others collaborated on to expose [*The Reason Why The Colored American is not in the World's Columbian Exposition*](#).

Bethany

We also highlighted another name you've heard before: George Wahington Carver. While you may know Carver as a scientist, his early ambition and education was in art. His painting *Cactus and Yucca* could have been seen at the Fair in the Iowa Pavillion.

Jacob

This year, we're carrying the story of George Washington Carver forward from the World's Fair through some of his more familiar work.

Bethany

Like his research on peanuts, one of many crops and topics explored in a series of scientific bulletins published throughout his life.

Jacob

Today, we're taking this audio tour through some of the Museum's public exhibitions to find the story of George Washington Carver, his bulletins, and how they can reflect the meaning of Juneteenth.

Bethany

First, we're heading over to the *Africa* exhibition to better understand the history of the holiday.

2 - Africa

Jacob

We're following the sound of lively music to the west side of Stanley Field Hall, where a street scene from Senegal welcomes you to *Africa*.

Bethany

The exhibit tells stories from across time and from cultures across the continent.

Jacob

Here in the final gallery, the story shifts to the Americas, where enslaved Africans were brought between the 16th and 19th centuries to build economy from forced labor and stolen innovation.

Bethany

In 1808, the Transatlantic Slave Trade was outlawed for economic reasons as much as for moral ones. But slavery was still legal in the United States, and the trade of human beings still happened domestically.

Jacob

George Washington Carver was born enslaved in Missouri around 1860. In this corner of the gallery by the reconstructed cabin, a panel titled *The Abolition of Slavery* shows that slavery had already been abolished in other countries like Haiti as far back as 1804 and Mexico in 1829.

Bethany

Beside that panel, one titled *Resistance* tells us some of how that freedom was won. By sabotaging the work and sometimes the workers themselves, enslaved Americans were able to organize and rebel against the weight of the agricultural economy.

Jacob

Throughout the gallery, there are examples of what that work entailed and how it was built from African and African American innovation. In the case behind us, a model of Cyrus McCormick's Reaper speaks to the importance of efficiency in this economy.

Bethany

Today, it's widely understood that the horse-drawn harvesting machine was based on designs from Cryus' father, Robert, and a man named Jo Anderson who was enslaved by the family. In 1847, the McCormick Harvesting Machine Co. opened and mass-produced an improved version of those prototypes right here in Chicago.

Jacob

That's the McCormick name of the City's convention center just south of the Museum.

Bethany

On January 1st, 1863, President Abraham Lincoln delivered the Emancipation Proclamation. But it wasn't until June 19th, 1865 (two and a half years later) that the last enslaved Americans in Galveston, Texas even found out they had been freed.

Jacob

At this point, when George Washington Carver was 5 years old, the United States entered a period of Reconstruction. The next decade saw dedicated policies and programs meant to reintegrate the South and African Americans into the United States and its economy.

Bethany

The year after the 1893 World's Fair, George Washington Carver became the first African American to earn a Bachelor of Science degree. Two years later, he graduated with a Masters degree in bacterial botany and agriculture and was soon teaching at the esteemed Tuskegee

Institute; founded in 1881 to give higher educational opportunities to Black students in the South.

Jacob

Carver's journey was exceptional in many ways. Both because he was an unparalleled intellect, but also that this experience was the exception for many Black Americans during Reconstruction and beyond.

Bethany

Let's cut back across Stanley Field Hall and take the elevator to the Upper Level to learn more about racial representation in the decades that followed.

3 - Looking at Ourselves: Rethinking the Statues of Malvina Hoffman

Bethany

We're taking a left out of the elevator on the Upper Level, past *The Cyrus Tang Hall of China* to a cluster of statues here in the hall.

Jacob

These human figures were sculpted by an artist named Malvina Hoffman and displayed at the Museum in an exhibition called the *Races of Mankind*, which opened alongside *another* Chicago World's Fair: the 1933 Century of Progress.

Bethany

This is 40 years after the first Fair, almost 70 years after the abolition of slavery, and 100 years since the Treaty of Chicago, which pushed the indigenous people west from this land and paved the way for the United States' incorporation of Chicago in 1837. That's what the "Century of Progress" refers to.

Jacob

Much like the 1893 World's Fair, "progress" is a subjective term here. And these statues are a testament to the troubled pathway forward for African Americans in the United States.

Bethany

"Racist? Not Racist?" This panel explains that "This exhibition tried to show that people could be categorized into "racial types" and that certain types were superior to others." This kind of thinking fueled the race-based atrocities of the Second World War just a decade later, and slowed racial equity and opportunities in the United States.

Jacob

Just the year before the exhibition opened, at the very same Tuskegee Institute where Carver was teaching, the United States Public Health Service conducted a Syphilis Study that left hundreds of Black men unknowingly untreated as test subjects more than study participants.

Bethany

Races of Mankind closed in 1969 at the end of the Civil Rights Era, but by that time they had been seen by over 10 million visitors. These statues are now displayed with context about their impact. In many cases this includes the names of the people who posed for them, giving personhood to the “types” they once represented.

Jacob

Against this backdrop, George Washington Carver established the Tuskegee Agricultural Experiment Station to equip Black students with an agricultural education, and to solve some of the issues that posed a threat to the agricultural economy.

Bethany

This mission was laid out in his 1898 Bulletin [Feeding Acorns](#), the first of 44 he'd publish from these Experiment Stations. *Feeding Acorns* made the case for acorns as a practical alternative to corn for feeding livestock.

Jacob

Later bulletins would explore opportunities for other plants like sweet potatoes, cowpeas, corn, cotton, and of course peanuts.

Bethany

We're heading over to *Plants of the World*. Our next few stops on the Audio Tour will get to the root of what Carver was researching.

4 - [Plants of the World](#)

Jacob

Many of the plants George Washington Carver wrote about in his bulletins can be found here in *Plants of the World*.

Bethany

As we enter the exhibit, the cases on our left talk about the history of the hall and the Museum's botany collections. Some of the models here date back as far as 1909.

Jacob

Just one year earlier, Carver published a bulletin on [How to Make Cotton Growing Pay](#), including instructions for the preparation of land, fertilization, seed selection and cultivation. About half way down the hall there's a model of a cotton plant with a label in English, Spanish, and Cherokee syllabary.

Bethany

Each Native American Heritage month, we add language labels to specimens that are important to indigenous cultures like the Cherokee, Diné, Ojibwe, and Sauk.

Jacob

In addition to being a meaningful plant in the Cherokee culture, cotton had become key to the American economy in the 19th century. In the cases to the right of the cotton model, you can see a more contemporary look at everything that goes into cotton production. Until 1865, this production relied on the labor of enslaved African Americans.

Bethany

But after 1865, many African Americans in the South were afforded few opportunities outside of the same plantations they had previously worked. In the agricultural economy, slavery was largely replaced by a system of sharecropping where landowners would provide the land, tools, and even a share of profits for tenant farmers.

Jacob

But this ended up leaving many of the tenants deeply indebted to the landowners, particularly when cotton yields were low.

Bethany

And this was not an uncommon occurrence. It turns out, planting the same thing in the same spot over and over depletes the health of the soil.

Jacob

George Washington Carver saw an opportunity for agriculture to empower African American farmers to enter the economy for themselves. But he also knew that economy was dependent on environmental sustainability.

Bethany

And peanuts offered some sustainable solutions. We're heading back out of the exhibit the way we came in, but before we do we're stopping by these cases of edible nuts and legumes hidden behind the Coffee Plantation diorama.

Jacob

Carver and his Experiment Station advertised legumes (including beans, peas, and peanuts) as an ideal counterbalance to cotton. In his 1916 bulletin: [How to Grow the Peanut & 105 Ways of Preparing it for Human Consumption](#), Carver outlined tips for farmers and uses for consumers (supporting both the supply and demand of the economy).

Bethany

In the Legumes case, this label explains how nodules on the roots of plants contain bacteria called *Rhizobium* that take in nitrogen from the air.

Jacob

This is starting to get a little technical. But I've heard some of these terms used in another exhibit.

Bethany

You're thinking of *Underground Adventure*. Let's take the elevator down to the Ground Level to get a better understanding.

5 - *Underground Adventure*

Jacob

While *Underground Adventure* typically requires a special ticket, just let the staff member know you're here for the audio tour and they'll welcome you in.

Bethany

This video at the entrance explains what that label said upstairs. All living things need nitrogen to make protein. There's nitrogen available in the air, but plants and animals can't access it. These Rhizobia bacteria can, though. They take nitrogen from the air and fix it for the plants.

Jacob

The plants then distribute that nitrogen into the soil or to animals like us who eat the plants! And this was Carver's expertise. His masters degree in bacterial botany focused on this relationship between plants, fungi, and their ecological impacts.

Bethany

Toward the back of this exhibit, a panel titled *The remarkable Rhizobia relationship* explains that only certain plants (like legumes) have these rhizobia in their roots, which is why farmers rotate them with other crops.

Jacob

In the introduction to Carver's 1905 bulletin, [How to Build Up Worn Out Soils](#), he cites an ancient Egyptian approach to letting land sit idle to rest.

Bethany

Although the "fertilizing value of legumes" was identified early on as a way to not just rest but replenish land, a growing world population traded some of this historical knowledge for what was seen as more economically efficient agriculture.

Jacob

But George Washington Carver argued it could be both. He says: "For eight years the Tuskegee station has made the subject of soil improvement a special study, emphasizing the subject of crop rotation."

Bethany

“Keeping in mind the poor tenant farmer with a one-horse equipment,” he continues, “therefore every operation performed has been within his reach, the station having only one horse.”

Jacob

At the end of the bulletin, Carver concludes that peanuts should be grown by every farmer, and that even the poorest soils can be brought back to abundance with the right approach.

Bethany

Now we’re exiting *Underground Adventure* by walking past the animatronic tarantula.

Jacob

Wait, do we have to?

Bethany

How else are we going to get to the next stop of the tour?

Jacob

Alright.

6- The Insect World

Bethany

Out of *Underground Adventure*, we’re crossing the hall to a corridor next to the Siragusa Center, where three cases hold insects pinned against white boards.

Jacob

I’m a lot more comfortable with insects when they’re normal sized and not moving.

Bethany

These specimens were prepared by Carl Cotton; the Field Museum’s first African American taxidermist (and maybe even Chicago’s first professional one). Carl Cotton worked at the Field, preparing specimens and exhibitions from 1947 until his death in 1971. His work can still be seen today in the Bird Hall, Reptile Hall, and here in *The Insect World*.

Jacob

Carl Cotton’s work at the Field began just four years after the death of George Washington Carver.

Bethany

And many of the plants that Carver researched are the namesakes of these weevils in the 2nd case. There’s an acorn weevil, a sweet potato weevil, and even a cotton boll weevil.

Jacob

George Washington Carver studied every part of the ecology of agriculture: from the plants, to the fungi that work with them, to the pests that work against them.

Bethany

In a 1917 bulletin called: [*Twelve Ways to Meet the New Economic Conditions Here in the South*](#), Carver poses the question: “what shall I do with the boll weevil? In all probability it is here to stay.”

Jacob

He answers “Yes, the weevil is here, but our experiments prove that it may be controlled as follows...”

Bethany

He goes on to describe a series of steps for how to prepare the soil, how best to plant the seeds, when best to harvest, and instructions to destroy the remaining stalks and waste where the weevils might be hiding.

Jacob

His final recommendation was to encourage ones neighbors to do this same!

Bethany

This encouragement of community collaboration speaks to George Washington Carver’s intent to empower African American farmers to find sustainability in the American economy.

Jacob

We’re heading back up to the Upper Level to understand the impact of all this research, and how this science was shared.

7 - Pritzker DNA Lab

Bethany

We’re here at the Pritzker DNA Lab, right outside of the elevator on the Upper Level. At the DNA Lab; Field Museum staff, students, and collaborators study the genetic diversity of life through the Museum’s natural collections.

Jacob

Looking in on the Lab, it’s easy to imagine Carver and his students in his Experiment Station.

Bethany

But with slightly more state-of-the-art equipment. In the back of *Traveling Pacific* there’s another Lab—The Regenstein Laboratory, where cultural objects receive care from our conservators.

Jacob

Outside the entrance to *Evolving Planet* is the Fossil Prep Lab, where real fossils (including dinosaurs) are prepared for study or display.

Bethany

These labs are just three public-facing spaces where you can see our teams working with our collections of over 40,000,000 objects and specimens. Looking out and up across Stanley Field Hall, windows around the ceiling give us a glimpse into the spaces behind the scenes where staff work every day to make new discoveries, keep our collections safe, and tell their stories.

Jacob

3,000,000 of the specimens belong to our botany collections (including 88 specimens collected between 1894 and 1909 by George Washington Carver himself). Many of these specimens can be explored digitally online.

Bethany

But only about 25% of the Museum's collections have been digitized thus far. And that's actually something anyone can help support. The Field, alongside many other natural history museums, have turned to community to help transcribe the data from our physical collections.

Jacob

This community participation is essential to the work we do, and the subject of a recent paper published in the journal *Trends in Ecology & Evolution* authored by a collaborative team including the Museum's PR and Science Communications Manager, Kate Golembiewski, and our Head of Botanical Collections, Matt Von Konrat.

Bethany

The paper makes a case for abandoning the term "Citizen Science," (which has long been used to describe these community contributions) due to "increased attention to immigration issues and to racism against systematically marginalized populations across the globe."

Jacob

Much like the Field Museum today, George Washington Carver brought his work outside of the laboratory and into the community. In 1906, Carver patented his Jesup wagon, a mobile classroom that allowed him to bring his bulletins, tools, seeds, and other resources directly to rural communities.

Bethany

Carver's work wasn't just for his students, but for the economic sustainability of the everyday farmer. In a 1910 Bulletin titled [*Nature Study and Gardening for Rural Schools*](#), Carver endeavored to awaken in young people a love of nature, and to provide an access point to that agricultural economy.

Jacob

He said: “It is the only true method that leads up to a clear understanding of the fundamental principles which surround every branch of business in which we may engage. It also stimulates thought, investigation, and encourages originality.”

Bethany

Next, we’re heading down the hall to *Restoring Earth* to explore what this kind of community empowerment looks like today.

Jacob

Can we take a quick selfie with Máximo first?

Bethany

Of course. Just make sure to tag @FieldMuseum when you post it to social media.

8 - Restoring Earth | Abbott Hall of Conservation

Jacob

Restoring Earth tells stories from Museum-led conservation efforts in the Andes-Amazon region of Peru and right here in Chicago.

Bethany

About mid-way through the Hall, the room opens up to a wood floor with a game projected on a screen.

Jacob

I want to play!

Bethany

Small circles fall from the sky onto prairie, rainforest, and coral reef landscapes. It says to “stretch out your arms to hold 30 orbs.”

Jacob

I’m trying, but my arms are short! Help!

Bethany

It does hint to “Try Working together.” Alright, you hold 15 and I’ll hold 15.

Jacob

This is still difficult, but it feels achievable.

Bethany

We did it together! Now back to business. Just beyond this game, a silver metal sign says

Conservation is collaboration.

Jacob

Around this gateway, back-lit lime green panels define conservation in a number of different ways. Conservation is passion. Conservation is making a living. Conservation is celebration. Conservation is the food we eat. Conservation is heritage.

Bethany

In this corner, stories illustrate what it means to meet the challenge of climate change “Chicago Style.”

Jacob

One panel says: “People grow gardens to save money on food, live healthier, or relax. But they’re also fighting climate change by reducing the fossil fuels needed to care for lawns. Scientists work with communities to identify everyday activities that help the environment.”

Bethany

This past February, as a part of our Black History Month programming, the Field Museum hosted Cheryl Johnson, the Executive Director of *People for Community Recovery*, through our ongoing Armour Lecture Series.

Jacob

People for Community Recovery builds on the work of Cheryl’s mother Hazel Johnson, the “mother of the environmental justice movement” who helped to connect health issues in her Altgeld Gardens community to the environmental impacts of pollution in 1979.

Jacob

All this talk of gardens and the environment has me itching to go outside. For our final stop on the tour, let’s visit the Museum’s largest exhibition of all by taking the elevator back down to the Ground Level.

9- Rice Native Gardens

Jacob

We’re here at the East Door on the Ground Level. As we exit the Museum, there’s a quote etched into the stone overhead.

Bethany

“If a person walks through the woods and listens carefully, he can learn more than what is in books.” George Washington Carver.

Jacob

Let’s take a walk through the woods. Outside, we take a left and make our way to the Northeast

corner of the museum, where a reproduction of an ancient Olmec Head welcomes us to the Rice Native Gardens.

Bethany

Since the building first opened in 1921, landscaping on the Museum Campus boasted little plant variation from non-native plants that depleted the health of the soil and discouraged biodiversity.

Jacob

But in 2016, the Museum began to transform the gardens to something more sustainable. Today, these native prairie plants help to aerate the soil and encourage visits from pollinators like birds, bats, bees, butterflies, and other bugs. The Museum's Keller Science Action Center offers a series of field guides and other resources to help you plant, identify, or just appreciate native plants in your own communities.

Bethany

In 2022, the Menominee Tribal Enterprises gifted a peace tree to the Museum alongside the Museum's new Native Truths exhibition. The eastern white pine, which can be found in the garden's Northwest corner, symbolizes the living contract of respect between the Field and the Indigenous communities with whom we partner.

Jacob

Around the next corner, on the West side of our building, the Edible Treasures Garden offers a space for our employee community to come together and cultivate a small crop of vegetables. Those who contribute to the care of the plants are invited to harvest from them when the time is right.

Bethany

There are even legumes like peas in there! In October 1942, only months before his death, Carver published one of his final Bulletins: [*Nature's Garden for Victory and Peace*](#). The Bulletin spoke to Americans in the early years of World War 2.

Jacob

The bulletin offered a practical guide to edible plants that many considered to be weeds while wartime food scarcity threatened every American's health and economic sustainability. It said: "...here is an opportunity to render a service much needed at the present time, and equally applicable to our coming rehabilitation program."

Bethany

Carver's work was focused on education, empowerment, and economic equity for African American communities after the abolition of slavery. But the impact of his research reached so much further, and continues to guide our work today.

Jacob

Like in Stanley Field Hall, where we began our tour, a Juneteenth flag flies over the Native Gardens from June 19th through July 4th. Opal Lee, the “Grandmother of Juneteenth” who fought for federal recognition of the holiday in 2021, advocated for the flag to be flown through the 4th of July to acknowledge the fact that Independence Day doesn’t represent freedom for *everyone* in the United States.

Bethany

On Juneteenth, we celebrate freedom, community, and the path to progress; how far we’ve come and how far we still have to go.