

Audio Guide Transcript

# AGE OF ARMOR

**TREASURES from the HIGGINS ARMORY COLLECTION  
at the WORCESTER ART MUSEUM**

February 18, 2023–May 14, 2023  
Ticketed Exhibition Galleries

SAINT LOUIS ART MUSEUM

## **STOP 1**

### **Allison and John Ferring Gallery 212S**

#### **Introduction**

#### **Speakers**

**Min Jung Kim**

**Barbara B. Taylor Director**

**Saint Louis Art Museum**

**David Conradsen**

**Grace L. Brumbaugh and Richard E. Brumbaugh Curator of Decorative Arts and Design**

**Saint Louis Art Museum**

[Min]

Hello, I am Min Jung Kim, Barbara B. Taylor Director of the Saint Louis Art Museum.

I am delighted to welcome you to the audio guide for *Age of Armor: Treasures from the Higgins Armory Collection at the Worcester Art Museum*. This traveling exhibition features more than 90 objects drawn from one of the finest collections of arms and armor in the United States. Through these works we will explore the history and artistry of defensive armor made in Europe from ancient Greece to today. To tell you more, I'd like to introduce David Conradsen, the Grace L. Brumbaugh and Richard E. Brumbaugh Curator of Decorative Arts and Design.

[David]

Thank you, Min. The knight in shining armor, clad in steel from head to toe, may be a familiar image from children's stories, movies, or perhaps a museum gallery. But how did armor come into being, and why? Who made and wore armor? And why did its appearance change over time? These are some of the questions we will consider in the exhibition.

Plate armor developed during the Middle Ages, in the 1300s. Over the next 200 years the art and craft of armor making flourished in cities and towns throughout Europe, until gunpowder weapons made it obsolete in the 1500s. Even as the use of armor declined on the battlefield, it continued to be used in specialized situations, and armor remained a symbol of power and status. Body armor is used today on the modern

battlefield, and historical armor continues to be a source of inspiration in the imaginary worlds of film and television.

We are thrilled to bring this exhibition to a St. Louis audience. Although the Saint Louis Art Museum has collected armor for more than a century, we have never before hosted a major exhibition on this subject. The Higgins Collection at the Worcester Art Museum is renowned for its masterworks of armor, some of which you will see in this presentation. The exhibition also gives us an opportunity to feature more than 40 rarely seen artworks from the Museum's collection, ranging from monumental Flemish tapestries to costume, prints, paintings, and other artworks from around the world that enrich this story of armor over more than 2,000 years.

This exhibition audio guide offers commentaries from several individuals. In addition to my voice, you will be hearing from other curators, scholars, artisans, and community members.

We encourage you to experience this guide in any order you like; you may follow it in numeric order or pick and choose. Each featured object can be located by following the floorplan on this webpage or by identifying the audio icon on the object's label in the exhibition. Whether you're listening from home or in the Museum galleries, I hope you enjoy this audio guide and your visit to *Age of Armor: Treasures from the Higgins Armory Collection at the Worcester Art Museum*.

## **STOP 2**

### **Rise of Plate Armor**

#### **Gallery 258**

*Field Armor from a Garniture*

#### **Speaker**

**Jeffrey Forgeng**

**Curator**

**Higgins Armory Collection at the Worcester Art Museum**

Hello, my name is Jeffrey Forgeng, and I'm the curator of the Higgins Armory Collection at the Worcester Art Museum.

This suit is one of the most visually striking in the Higgins collection. Just as modern fashionistas look to Milan for trendsetting clothing today, Renaissance noblemen looked to Milanese armorers to deliver the latest looks on the battlefield.

Pompeo della Cesa, the maker of this armor, was the foremost Milanese armorer of his day, specializing in a style that imitated fashionable civilian clothing but with an ancient Roman twist. The sculpted breastplate, broad hip guards, and narrow leg armor on this suit echo the silhouette of male clothing of the late 1500s. The darkened metal with gold and silver highlights imitates the patterned velvets adorned with gold and silver thread favored by wealthy noblemen. The etched and gilt patterns that cover the surface include wings and thunderbolts, symbols of the Roman sky god Jupiter; tridents and sea serpents, emblems of the sea god Neptune; and the snake-haired Medusa, symbol of Minerva, the goddess of wisdom.

**STOP 3**  
**Rise of Plate Armor**  
**Gallery 258**  
*Sporting Crossbow*

**Speaker**

**David Conradsen**  
**Grace L. Brumbaugh and Richard E. Brumbaugh Curator of Decorative Arts**  
**and Design**  
**Saint Louis Art Museum**

By the 1200s the crossbow was a powerful weapon on the medieval battlefield and a contributing factor in the development of plate armor in Europe. The steel-tipped bolts were capable of piercing mail, and even plate armor, at close range. Early bows were made of wood or animal horn, like this example from the late 1400s. Strips of horn and animal tendons were glued together to create a resilient and elastic bow, sealed with birch bark to make it water-resistant.

The iron loop at the front of the weapon, called a stirrup, allowed the archer to steady it while drawing the bowstring, either by hand or using a mechanical device, like the cranequin displayed in this case. At the center of the crossbow's wooden stock is a round spool made of antler, called the nut. This held the bowstring until released by the long iron trigger, sending the bolt flying toward its target.

Infantry crossbowmen might use a shield made of wood and leather, called a pavis, like the painted example displayed nearby. Propped on the ground, the shield provided cover while they spanned and reloaded.

Even after crossbows became obsolete on the battlefield, archers continued to use these weapons for hunting and sport. In German-speaking regions of Europe sport shooting with crossbows at targets shaped like eagles endured into the early 1900s. Closer to home, and as recently as the 1940s, people of German ancestry in St. Charles, Missouri, kept alive this tradition of shooting at eagle-shaped targets.

## **STOP 4**

### **Armor as Fashion**

#### **Roxanne H. Frank Gallery 257**

##### *Mitten Gauntlet*

### **Speaker**

#### **Jeff Wasson**

#### **Metalworker and sculptor**

#### **Queens, New York**

Hi, my name is Jeff Wasson. I'm a metalworker and sculptor who specializes in making medieval plate armor. I have been making armor for 30 years. I have a workshop in Queens, New York, where I practice my craft.

Here we are looking at a German mitten gauntlet made in the mid-16th century. By this time plate armor had been in use for hundreds of years and seen many variations in form and style.

Notice the smooth and elegant lines of this gauntlet. There is a ridge or crest running along the center outside of the cuff. The upper part of the cuff is made of one plate skillfully hammered to tuck in at the wrist and flare out at the cuff and also flare to accommodate the thumb and knuckles. This plate would have been forged hot and carefully hammered to create the anticlastic form.

Gauntlets can have many styles and forms, but they all must fit to the architecture and anatomy of the human hand. They must allow the wearer to close and open the hand. They must fit and be comfortable to wear and use. A man at arms wearing a gauntlet must be able to hold a sword, spear, or lance and might also be required to hold the reins, if mounted on horseback.

Where the knuckles would join the finger is a knuckle plate. It is bossed out and roped. It connects the mitten plates to the body of the gauntlet. The mitten plates are loosely riveted to allow articulation.

The last mitten plate and also the cuff of the gauntlet are inwardly hemmed, and chiseled and filed to look like roping. There are also a series of rivet heads along those edges. Those rivets are decorative, but they also serve to hold in a leather strip on the inside of the gauntlet. A leather glove would have been stitched to that leather strip.

It was the fashion of this time for the rivet heads to show on the outside of the armor and also for the edges to be roped and have a sunken border parallel to the roped edge.

Another subtle detail is the cut- and file work along the medial edges of the mitten lames. This was done using chisels and files. Notice how all the edges of the armor are smooth and create clean lines.

This gauntlet would also have had thumb plates that were riveted to leather and also stitched into the glove. You can see two rivets on the thumb knuckle terminal where this leather once was joined. The leather has dried out or decayed, and the thumb plates are long gone.

## **STOP 5**

### **Armor as Fashion**

#### **Roxanne H. Frank Gallery 257**

#### *Maximilian Breastplate and Fauld*

### **Speaker**

#### **Jeff Wasson**

#### **Metalworker and sculptor**

#### **Queens, New York**

This breastplate, made by Italian armorers in the early 16th century, is an interesting mix of fashion, function, and technology.

The breastplate is very narrow at the waist and has a very round globose plate to protect the chest. A series of flutes radiate out from the waist and also down through the lames of the fauld. The breastplate is mimicking a civilian pleated doublet with narrow waist and full chest. The way in which the flutes stop midway up the chest is exactly as you see in male civilian fashion of the time.

This style of fluted surfaces became known as the Maximillian style and started in Germany.

This extreme form also has a very functional purpose. The tight waist sits just below the rib cage and just above the pelvis, so the weight of the cuirass would sit right on the wearer's center of gravity, helping to take the weight off of the shoulders.

While tight at the waist, the breastplate gives plenty of room in the chest, so that the wearer can breathe freely. It was defensive also in that the round surface deflected the blows of weapons, and the fluting gave the plates extra strength.

Turned edges, or rolls, in the arms and also at the neck further strengthen the breastplate and deflected the points of weapons away from the neck and arms.

Forging a breastplate such as this involved heating and hammering a flat plate into hollows or flat on the anvil until it gained the necessary volume. A flared waist plate was also formed to attach the fauld lames to the chest plate. Once all the parts were roughly formed, the flutes were hammered in from the outside of the breastplate over a fluting stake. The flutes in this piece are more extreme than most other examples and make this



piece very distinctive.

The rolls at the neck and arms are also forged hot, hammering the metal over the edge of the anvil to form a flange and then using a stake and hammer to curl the edge around, forming the roll.

Once all the hammer work was done, the armor might be heat treated. The breastplate would be heated until glowing orange and then quenched in an oil or brine, cooling it immediately and hardening the steel. A second process, called tempering, also heated the steel, but to a lesser temperature and fine-tuned the hardness to be tough but not brittle.

The breastplate would be blackened by all this heating, so the next step would be to grind and polish it smooth. After this step the etching would be done by painting the metal with a resist and then scratching out a design. A corrosive paste would eat away at the exposed metal, creating the etched artwork.

Lastly the breastplate would be assembled with rivets and leather straps and buckles. And finally, it would be ready to wear.

## **STOP 6**

### **Armor as Fashion**

#### **Roxanne H. Frank Gallery 257**

##### *Three Landsknechte*

### **Speaker**

#### **Clare Kobasa**

#### **Assistant Curator of Prints, Drawings, and Photographs**

#### **Saint Louis Art Museum**

Hello, I'm Clare Kobasa, the assistant curator of prints, drawings, and photographs.

Encountering a print like this etching by Daniel Hopfer, one finds paper and ink. What's missing, however, is the third material that was used to bring the work into being—metal. In an etching such as this one, an artist would draw into a ground-covered metal plate and then use an acidic mordant to do the work of incising the exposed lines. This technique had been used as a process for decorating armor.

At the beginning of the 16th century, however, Hopfer became likely the first artist to adapt etching as a print technique. His transfer of this practice to paper helped open up printmaking to a new set of makers and expectations. Using the etching needle allowed the artist to draw freely, resulting in expressive lines such as the curling details of the vegetation here.

While later artists preferred copper, which was easy to manipulate, Hopfer experimented on iron plates. Their tendency to rust is visible here along the edges, especially in the upper left and right corners. This significance of metal for the history of printmaking is wonderfully in evidence here through Hopfer's work, which reflected the exchanges between media and set the stage for further developments in etching.

## **STOP 7**

### **Uses of Armor**

#### **Roxanne H. Frank Gallery 256**

##### *Close Helmet for the Foot Tourney*

### **Speaker**

**David Conradsen**

**Grace L. Brumbaugh and Richard E. Brumbaugh Curator of Decorative Arts  
and Design**

**Saint Louis Art Museum**

As its name implies, a close helmet fits closely around the entire head with just a narrow eye slit to provide maximum protection. The top of the helmet, called the bowl, follows the contours of the skull from the forehead to the nape of the neck. The refined shaping, such as the fluid curve from the bowl to the projecting comb, is remarkable, especially given the heavy gauge—or thickness—of the metal. The helmet's substantial weight and the configuration of the lower visor with no openings on the left indicate that it was meant for a competition on foot, in which the left side bore the brunt of an opponent's strikes.

Combats on foot may have originated from the continuation of the joust after one knight had been knocked off his horse. The sport developed into a separate tournament event with its own rules, armor, and weapons. Because foot combats were fought across a barrier, half-armors covering the upper body and head were sufficient, as hitting below the belt was prohibited.

Tournaments that were once training for war became extravagant displays of pageantry and an excuse for lavishly decorated armor. This helmet features dynamic flourishes of leaves etched and gilded on each side and trailing vines on the comb. The short tube at the back of the helmet could hold a crowning plume of ostrich feathers, an accessory called *panache*, a word which we still use today to mean “a display of flamboyant style.”

## **STOP 8**

### **Uses of Armor**

**Roxanne H. Frank Gallery 255**

*Rennzeug*

#### **Speaker**

**Katherine Feldkamp**

**Research Assistant for Decorative Arts and Design**

**Saint Louis Art Museum**

Hello, I'm Katherine Feldkamp, the research assistant for the decorative arts and design department at the Saint Louis Art Museum.

Horses gave knights an advantage in combat because they elevated the rider above the action while the horse itself could provide protection. Warhorses, also called destriers, were instructed to spin, kick, bite, sprint, and halt on command. When not fighting, knights kept their horse's skills sharp with training and jousts. Since destriers were expensive to breed and train, they often wore substantial armor. In a case nearby you can see a finely wrought muzzle, which prevented horses from biting people during public events, and an etched and gilded chamfron, which protected the horse's face during conflict.

Although we often assume warhorses were immense, like the Budweiser Clydesdales, new research shows they were rather small. Horses are measured in four-inch units, called hands, from their front hoof to the top of their shoulders. The destrier was around 13 hands tall. For comparison, the model horse here is about 15 hands tall, which is average today, while horses below 14.2 hands are considered ponies. Despite their smaller stature, these horses could easily carry the weight of a knight in full armor, and contemporary accounts describe destriers as highly muscular with strong bones and thick, arched necks. These prized horses were later bred into today's Friesians, Andalusians, and Percherons.

## **STOP 9**

### **Uses of Armor**

#### **Roxanne H. Frank Gallery 255**

##### *Right Vambrace*

### **Speaker**

#### **Katherine Feldkamp**

#### **Research Assistant for Decorative Arts and Design**

#### **Saint Louis Art Museum**

This vambrace is a reminder of armor's ceremonial uses as well as who could and could not wear it. This piece is child-sized, but its wearer would not have gone to battle, at least not yet. Intended to be worn by boys of elite families, children's armor was symbolic. It visually indicated that the owner was someone of importance who would someday assume leadership and military command. Although this armor is smaller than many full-size suits, it still would have cost a lot of money.

Armor's expense meant only the wealthiest could afford this protection on the battlefield, while poorer individuals wore what they could afford. Strict gender norms also meant few women participated in combat and received armor only under extraordinary circumstances. Joan of Arc is one such person—born to a peasant family in France around 1412, Joan helped defeat the English armies during the siege of Orléans in the Hundred Years' War and ensured the coronation of Charles VII of France in 1429. In recognition of her military leadership, Charles ordered his master armorer in Tours to make a full suit for Joan that cost 100 *livre tournois* [pounds]. For comparison, the average laborer earned roughly 4.5 pounds per year.

## **STOP 10**

### **Decorating Armor**

#### **Gallery 254**

##### *Three-Quarter Field Armor*

### **Speaker**

**David Conradsen**

**Grace L. Brumbaugh and Richard E. Brumbaugh Curator of Decorative Arts and Design**

**Saint Louis Art Museum**

Crafted in Milan, Italy, this armor shows the new styling that was popular after the mid-1500s. The breastplate features a projecting peascod belly and flaring tassets that protect the upper thighs. The etched decoration depicts clusters of ancient armor and weapons, design motifs called trophies, which evoke military victory through the ancient Roman custom of seizing their enemies' weaponry. The polished steel was once colored a dazzling blue to set off the etched and gilded borders.

This armor was probably owned by Henry Herbert, who in 1570, about the time this armor was made, became the Second Earl of Pembroke. Like his father, William Herbert, the First Earl, Henry served the Tudor court as a close advisor to Queen Elizabeth I of England. His father had been an aide to King Henry VIII and, upon Henry's death in 1547, had inherited one of the king's highly decorated Italian armors.

A second armor for Henry Herbert survives in the collection of The Metropolitan Museum of Art in New York. That example was made at the Royal Armouries workshop at Greenwich, England, which Henry VIII established to avoid having to send abroad for high-quality armor. The workshops were staffed with skilled craftsmen from Milan and Brussels, and later artisans from Germany. One, Jacob Halder, kept an album of drawings of the armors he made, including the Second Pembroke Armor. A portrait of Henry Herbert painted not long after, in 1590, reveals his clothing in strong dialogue with his armor's full sleeves, bulging peascod belly, and voluminous upper stockings, all decorated with linear ornament.

## **STOP 11**

### **Decorating Armor**

#### **Gallery 254**

##### *Man's Jacket (Pourpoint)*

### **Speaker**

**Carole Frick**

**Professor of History**

**Southern Illinois University Edwardsville**

Hello, I'm Dr. Carole Frick, Professor of History at Southern Illinois University Edwardsville.

In the 16<sup>th</sup> century military wear became the primary influence in costume for men of the upper ranks. This rich doublet, called a *giubbone* in Italian, was not made to be worn under armor, but rather tailor-made for a rich young man to wear at court—styled after a military garment.

The *giubbone* is made of a gold-colored figured silk called *lampas*, a type of luxury fabric with designs woven into it. Typically, the *lampas* has a background weft of taffeta or satin, with supplementary wefts laid on top. These form a design, and here have gold and silver loops prominent in the pomegranate designs. The technique to create a shimmer with raised metallic loops was known as *allucciolato*.

The doublet has been lined and further decorated with red-bordered braid and black ribbons—the braid sewn on either side of the central opening with button ornaments and also covering the diagonal seams from armhole to waist on both sides. The flaps below the waistline are twice as long on the front than in the back and in the front are divided in the middle to display an essential component of the male costume of this period, a properly visible codpiece.

The introduction of the full-length portrait in the 16<sup>th</sup> century had necessitated the addition of an accentuated codpiece to sartorially portray male power for military leaders and other men of stature. The incised metal finishings on the ribbons were made by goldsmiths and their often-female assistants.

## **STOP 12**

### **Decorating Armor**

#### **Gallery 254**

*Tapestry: Scene from the Story of David and Bathsheba*

#### **Speaker**

**Genny Cortinovis**

**Andrew W. Mellon Foundation Assistant Curator of Decorative Arts and Design  
Saint Louis Art Museum**

I'm Genny Cortinovis, the Andrew W. Mellon Foundation Assistant Curator of Decorative Arts and Design at the Saint Louis Art Museum.

Cloth of gold is historically any velvet woven with gold or silver thread, though today the term more often describes velvet woven with an entirely gold or silver background, like the many examples portrayed in this tapestry.

The earliest gold and silver threads were composed of gilt strips of animal gut or parchment wrapped around a linen core. In the 15<sup>th</sup> century they were replaced by gilt plate wrapped around a silk core and metal wire. Elaborate cloth garments of gold like the one worn by King Solomon, seated in the center of this tapestry holding a scepter, often included both metal-wrapped threads and metal wire. The looped wire could be massed to create a textured bouclé or peppered across the velvet pile for a celestial effect called *alluccioiato*, literally, "lit up like fireflies."

It is not an understatement to say it took a village to make these glittery textiles. Men called gold beaters hammered ingots into thin sheets, which could be cut into strips. Gilt-leather workers gilded, or covered, leather or animal membrane strips with gold. Usually women wrapped these strips around threads of silk, cotton, or linen. Wire drawers made thin gold and silver wire. In addition to these metal specialists there were silk cultivators, throwers, and dyers, warpers, weavers, designers, and merchants. Requiring a vast network of knowledge and huge quantities of precious metals, cloth of gold was dizzyingly expensive.

These costly textiles played an outsized role at one of the most famous tournaments ever mounted in Europe. When Henry VIII, king of England, and François I, king of France, and their many courtiers met on a drab field near Calais in northern France to engage in



armored sporting contests like the tilt and combat at the barriers, they feasted under magnificent tents covered in cloth of gold. These veritable temporary palaces nearly outshone their rulers own flashy wardrobes. When Henry and his followers first approached the meeting point, allegedly the French paused cautiously, nearly mistaking their gold clothing glinting in the sun, for armor. Records show King Henry spent some 1,500 pounds, possibly over 1.5 million dollars in today's money, on his clothes of gold velvet. The entire effect was so memorable, the 18 days of sport and revelry became known as the Field of Cloth of Gold.

## **STOP 13**

### **A Changing Battlefield**

#### **Alvin and Ruth Siteman Gallery 253A**

*Field Armor from a Small Garniture*

#### **Speaker**

**David Conradsen**

**Grace L. Brumbaugh and Richard E. Brumbaugh Curator of Decorative Arts and Design**

**Saint Louis Art Museum**

This field armor comes from a small garniture that allowed it to be adapted for different types of combat. The burgonet helmet features a boldly projecting crest at the top and a visor. The helmet could be worn without face protection for optimal visibility, or in this configuration, with the overlapping lames—called a falling buffa—concealing the face while also projecting a menacing appearance.

The armor's polished steel was once blued to further accentuate the etched and gilded borders. The patterns of intersecting lines in these borders are called arabesques, after their origin in the Islamic world. The border decoration and the rolled edges of the helmet, breastplate, and pauldrons, filed with diagonal lines, replicate the flat woven tapes and corded trims found on clothing at this time.

The first owner of this armor may have been Siegmund Friederich, Baron of Herberstein. He belonged to a powerful and wealthy family who controlled large areas of the Styria region, now part of Austria. Although there were numerous workshops there capable of producing armor, this garniture was probably made in the southern German city of Augsburg, an important center of innovation in the arts of metalsmithing, armor making, and ornamental design.

## **STOP 14**

### **A Changing Battlefield**

#### **Alvin and Ruth Siteman Gallery 253A**

##### *Target (Shield) with Breech-Loading Gun*

### **Speaker**

**Jeffrey Forgeng**

**Curator**

**Higgins Armory Collection at the Worcester Art Museum**

This combination gun shield is one of the most curious objects in the collection.

It was probably once kept at the Tower of London, where a large number of these gun shields were stored. They had been purchased by King Henry VIII, who had several dozen of them in the tower when he died in 1547. Henry had taken over huge amounts of church property during his reign, making him one of the richest monarchs in Europe. He also loved fancy military gadgets, and these gun shields evidently captured his imagination. The ones in the tower may have been for his personal guard.

They were probably better for parades than battles, though. Small shields have to be held away from the body in order to protect it, but this one weighs more than a gallon of milk—imagine trying to fight holding a gallon of milk at arm's length! The weight, plus the unreliable mechanism for loading it from the back, made this an impractical weapon, but it's still a great example of Renaissance creativity.

**STOP 15**  
**Armor in the Modern Age**  
**Alvin and Ruth Siteman Gallery 253B**  
*Helmet*

**Speaker**

**Katherine Feldkamp**  
**Research Assistant for Decorative Arts and Design**  
**Saint Louis Art Museum**

The overall shape and aventail, or chain-mail neck guard, of this helmet resembles a *kulah khud*, which has its origins in central Asia but is closely associated with the artistic and military traditions of Persia, or modern-day Iran. The *kulah khud* is the most common type of Islamic helmet and was widely used from the 1600s through the 1800s across the Middle East and India. It usually features a rounded form with a top spike, a sliding bar across the nose, chain mail covering the neck, and two or more plume holders near the front, like the Indian example nearby. The plume holders would often contain feathers of an egret, heron, or peacock in order to visually show the wearer's importance. Yet the simplified, conical form and arrow-shaped nose guard of this helmet is specific to Sudan. Today the country of Sudan is in North Africa, just south of Egypt, and partially touches the Red Sea.

This helmet was probably worn during the Mahdist uprisings of 1881 to 1899, which was one of the last conflicts to use medieval-style armor. The Mahdists were an Islamic Sudanese force lead by al-Mahdī that sought to overthrow Egyptian and British colonial rule. The Mahdists deliberately chose to use medieval-style weapons in order to recall the arms and armor of Muslim warriors in the early centuries of Islam. Although the Mahdists were initially successful, their weaponry could not match the modern arms used by the Egyptian and British forces. Ultimately, the uprisings effectively ended after the Battle of Omdurman in 1898.

The gold-covered surface of this helmet suggests it was for an emir, a high-ranking Islamic military leader. With its highly reflective gold surface, this helmet could have been easily spotted during battle, which would have aided soldiers in identifying their leaders and following orders. This helmet's visibility demonstrates that some elements and uses of armor are consistent across cultures—especially the necessity of distinguishing commanders in combat.

## **STOP 16**

### **Armor in the Modern Age**

#### **Alvin and Ruth Siteman Gallery 253B**

##### *Black Panther Suit*

### **Speaker**

#### **Shevaré Perry**

#### **Costume Designer and Manager**

#### **Center of Creative Arts**

Hello, I'm Shevaré, costume designer and manager at Center of Creative Arts.

T'challa's Black Panther suit is more than armor. Its rich tapestry of textures and geometric patterns contain micro bits of vibranium and nanotechnology. Shuri, the leader of the Wakandan Design Group, and T'challa's younger sister, upgrades the Black Panther suit by allowing it to absorb kinetic energy. Ordinary armor is designed to repel and protect, whereas T'challa's high tech armor is designed to absorb and redistribute.

This energy absorption creates a purple like glow in the suit that highlights the seaming details and linear patterns making the Black Panther appear supercharged. This advanced technology even extends to the Black Panther's automated and sound absorbent boots.

The Black Panther suit is so high tech that it's stored in T'challa's spiked necklace! When looking at T'Challa's suit closely I notice the use of geometry and repetition. The shapes within shapes that create shapes. This speaks to the use of mathematics and architecture in ancient African empires.

The Black Panther suit makes me feel like I've traveled back in time and to the future simultaneously.

Take a moment and imagine yourself being covered from head to toe in vibranium textile. How does it feel to have superpowers?

**STOP 17**  
**Armor in the Modern Age**  
**Alvin and Ruth Siteman Gallery 253B**  
*First Order Stormtrooper Suit*

**Speaker**

**Katherine Feldkamp**  
**Research Assistant for Decorative Arts and Design**  
**Saint Louis Art Museum**

When stormtroopers first appeared on the screen in 1977, audiences hadn't seen such futuristic armor before. The sharp, simplified lines of the plates were both visually familiar yet seemed to belong to a far more advanced society. Ralph McQuarrie created the original concept art for the suits in 1975 and John Mollo designed the armor's final version and the costumes for *Star Wars*. George Lucas, the film's director, instructed Mollo to create realistic clothing so the universe felt grounded. To do this, Mollo relied on his extensive knowledge of military uniforms and found inspiration in medieval armor and German World War I equipment to create the stormtrooper suits. Mollo also chose stark black and white in order to make the soldiers seem blank and inhuman while emphasizing their blind obedience to the empire.

The First Order stormtrooper here demonstrates an evolution of the 1977 suit. Although this updated version showcases a more streamlined aesthetic, it nevertheless relies on the same plate armor technology while staying true to the original design.

The stormtrooper suit is a great example of how historical armor design continues to inspire our imaginations across the centuries with its ability to both protect its wearer and visually tell a story. Other examples of armor in pop culture, such as the nearby Black Panther suit worn by Chadwick Boseman in Marvel Studio's 2018 film, *Black Panther*, continue to build on these same essential functions.