

**"The Big, the Bad, and the Beautiful"**  
**The 99<sup>th</sup> Meeting of the Smithsonian's Material Culture Forum**

National Zoo Auditorium  
May 7, 2015, 4 – 6 pm

**Foreword**

On May 7, 2015 more than 125 people gathered at the Smithsonian's National Zoo to discuss their research and to share sometimes differing perspectives on the extremely timely and often sensitive topic of ivory conservation. After the meeting, participants had an opportunity to visit the elephant house with curator Tony Barthel and to continue the conversation over cocktails and dinner. The "The Big, the Bad, and the Beautiful" program was a direct result of a conversation initiated at the Material Culture Forum's June 2014 ice cream social, and – in coming full circle – exemplifies the reason the Material Culture Forum was established.

Since it was formed in 1988, the MCF has been providing Smithsonian staff, fellows, and interns with regular opportunities to meet their colleagues in other disciplines and museums, to share information about their fields, to consider different directions in their work, and to develop new collaborative projects. The MCF fosters a collegial and research-focused community at the Institution by hosting three scholarly programs a year, as well as the annual Folklife Festival preview and ice cream social. That is why it was particularly exciting when Cheryl Braunstein approached the MCF co-chairs with the idea of a pan-Institutional dialog on ivory conservation. We are delighted that the 99<sup>th</sup> meeting could focus on this important topic. Sometimes great ideas are initiated over ice cream – provided of course that they are brought up in the right forum!

Thanks to the Zoo for hosting "The Big, the Bad, and the Beautiful," especially Cheryl Braunstein for initiating and organizing the program. Thanks to Dennis Kelly, Tony Barthel, Bryna Freyer, Carlene Stephens, Marshall Jones, and Molly Fannon for sharing their expertise and their insights. And thanks to Noor Johnson for her efforts in organizing the event and for putting together this excellent program summary.

Co-chairs of the Material Culture Forum:

Mary Savig  
Curator of Manuscripts  
Archives of American Art

Barbara Stauffer  
Chief of Community Programs  
National Museum of Natural History

## *Welcome and Introductions*

**Dennis Kelly**, Director of the Smithsonian's National Zoo, then welcomed the forum to the Zoo, noting the irony that this was the 99<sup>th</sup> MCF gathering, since this is also the approximate number of African elephants killed every day in recent years as a result of the global demand for ivory. Dennis noted that while ivory as an object is "seen by some as having tremendous beauty and strong cultural, artistic and historical provenance," today the demand for ivory as a luxury item is fueling a conservation crisis. This crisis, he noted, "provides an unprecedented opportunity for the Smithsonian to collaborate on scholarship and engage with the public," concluding that "few subjects have been so universal in their scope and relevance."

A large focus of the Zoo's conservation work is raising public awareness about critical conservation issues, one of the foremost among them being wildlife trafficking. The U.S. has the second largest market for ivory in the world, and is one of the biggest countries driving trafficking. Many species that are threatened by trafficking are represented in the Zoo's living collection, including:

- Elephants, tigers and other large cats, great apes and turtles are poached at alarming rates;
- Reptiles, birds, small mammals and Amazonian fish are taken as pets or for food;
- And birds are collected for their feathers.

Raising awareness about wildlife trafficking builds on ongoing Zoo and Smithsonian Conservation Biology Institute leadership in many initiatives around the world, including the Global Tiger Initiative that is combatting poaching and illegal trade of tigers across Asia. The Zoo's most recent efforts include a mobile exhibit kiosk, funded through a grant from the Smithsonian Women's Committee, that focuses on wildlife trafficking of elephant ivory. The kiosk is currently on exhibit at the National Air and Space Museum and at the Zoo's Elephant Community Center, and will travel to the National Postal Museum in the fall.

"Wildlife trafficking is everyone's problem," Dennis concluded. "We want all of you here tonight to be a part of the discussion and the solution."

**Molly Fannon**, Director of the Office of International Relations and Programs and moderator of the evening's forum, introduced the speakers:

- **Tony Barthel**, the National Zoo's Curator of Cheetah Conservation Station and Elephants Trails. Tony has been at the Zoo since 2002 and, in his position, he oversees all daily aspects of the management of the animal collection in these exhibits, including husbandry, diet, coordinating veterinary care, animal training, enrichment programs, and USDA preparedness.
- **Bryna Freyer**, the curator for collections at the National Museum of African Art who joined the research staff at the Museum in 1977. She has curated or co-curated over 25 exhibitions on a wide range of topics from the sculpture of the Benin Kingdom to the 1960s art of Oshogbo, Nigeria. Particularly relevant to this meeting, she was the co-

curator and contributed to the publication *Treasures 2008*, an exhibition of African ivories. Ivory is also featured in the current exhibition *Chief S.O. Alonge: Photographer to the Royal Court of Benin, Nigeria*, with archivist Dr. Amy Staples.

- **Carlene Stephens** is a curator in the Division of Work and Industry at the National Museum of American History. Stephens was the project director and curator of the NMAH exhibition *On Time*. Among various other projects, she has curated a temporary gallery at NMAH about self-driving cars and is one of four curators for *Time and Navigation: The Untold Story of Getting from Here to There* at the National Air and Space Museum. In late January, she opened a new exhibition at American History called *'Hear My Voice': Alexander Graham Bell and the Origins of Sound Recording*.
- **Marshall Jones** is Senior Conservation Advisor at the Smithsonian Conservation Biology Institute. Though the current focus of his work is on tigers and elephants in Asia, he also helps to foster conservation partnerships between government agencies, NGOs, and universities around the world. A former principal deputy director of the U.S. Fish and Wildlife Service, Jones was the author the 1989 U.S. moratorium on the import of elephant ivory.

*"The Asian Elephant in the Room"*

In his talk entitled "Asian Elephant in the Room," **Tony Barthel** described his hands-on work with elephants, the "creature behind the ivory." He distinguished three elephant species: the Asian elephant, of which there are an estimated 25 to 40 thousand living in the wild; the African savanna elephant; and the African forest elephant, which lives primarily in Central Africa. The two species of African elephant combined number around half a million, though accurate numbers are hard to come by. The savanna elephant is more numerous and even growing in population in some southern African countries, though declining overall. Tony explained that "illegal ivory trade will disproportionately affect the forest elephant and will lead to extinction of this population more quickly." African elephants bear the brunt of the ivory trade because of their large tusks; because not all Asian elephants have tusks, they are less affected by ivory poaching, but are endangered because of habitat loss and resulting human-elephant conflict. The elephants in the Smithsonian's collection at the National Zoo are Asian elephants.

Tony spoke about why elephants matter to him and to the many people who visit Elephant Trails at the Zoo each year. "Most of us agree that it matters intrinsically – it's sad when any creature goes extinct. But elephants have a special place in most of our hearts." He noted that elephants are part of our cultural heritage – we grow up with stories and imagery of elephants. Because elephants live in a social community where the young live among the adults, we can "see ourselves reflected in that kind of community."

Elephants are known for their intelligence, another reason that humans appreciate them. Tony described the "mirror test" in which elephants are shown a reflection of themselves in a mirror. When researchers paint an "x" on an elephant's forehead, it touches its own head with its trunk

instead of touching the image in the mirror. Elephants also use tools; Kandula, a male elephant at the Zoo, has demonstrated how he will use a stool in order to reach objects that are placed outside his normal reach.

Protecting an elephant in the wild means “protecting an entire ecosystem.” Elephants help maintain the savanna by knocking down trees and keeping down scrub. When populations decline and the scrub grows back, it affects migrating species whose habitat has diminished.

The National Zoo has had elephants in its collection since 1891. Several years ago, a new facility, Elephant Trails, was built to provide a better experience for visitors and utilize best practices for care of the elephants who can now live together as a herd. The facility includes a communal bathing space and places to forage, graze and exercise. It also offers better facilities for researchers studying the elephants in the Zoo’s care and creates more space for visitors to observe and learn. The facility’s monitoring systems allowed Zoo staff to observe one of the elephants, Shanti, who retreated to an interior stall 15 minutes before the earthquake in 2011. “You could see that she knew about it before we did,” Tony explained.

The new kiosk highlighting wildlife trafficking is part of Elephant Trails’ larger education effort so that “people coming here learn something new and come away with actions so they can make a difference.”

### *“Art as an Endangered Species”*

In her talk “Art as an Endangered Species” **Bryna Freyer** drew on decades of experience as a curator at the National Museum of African Art to describe some of the ivory art pieces in the Museum’s collection and to describe the concerns she has about how the recent ivory regulations may inadvertently lead to the destruction of important historical objects.<sup>1</sup> Bryna began by describing some of the “great masterpieces” of carved ivory in the NMAfA collection, which include:

- A collection of staff tops from Congo peoples that represented the right of the king or chief to rule. She noted that the general public often doesn’t recognize these pieces as ivory, since they have been treated with palm oil “so they have a glowing, ruby look.”
- Carved tusks, including one donated by the Disney Corporation in 2005 that was purchased in Sierra Leone as a gift from Prince Manuel of Portugal for King Ferdinand

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<sup>1</sup> Recent regulations, discussed in detail by Marshall Jones in his talk, have created new restrictions for the acquisition and sale of ivory in the United States. In 2013, as part of their efforts to discourage illegal ivory trade, the US Fish and Wildlife Service crushed six tons of ivory that it had seized that was either illegal or improperly documented. While the majority of this crushed ivory was composed of raw ivory and mass-produced ivory objects of low value, it may have included some pieces with historic cultural and artistic value.

and Queen Isabella of Spain. The piece, which was made between 1493 and 1500 (and can be dated based on the iconography in the carving) includes three-dimensional carving and reflects an innovative carver who has adapted and incorporated foreign motifs.

- Ivory carved for the king or oba (“living god king”) in the Kingdom of Benin in Central Nigeria, which was placed on an altar in the royal palace. The current “[Chief S.O. Alonge](#)” exhibit includes a photograph of the royal ancestral altar taken in 1892 and a similar photo taken in 1970 of an altar that still features ivory. During a war between British colonial powers and the King of Benin in 1897, the British attempted to “break the power of the king” by seizing his sacred objects and wealth, including many ivory tusks, both carved and plain.

One of these tusks is included in the Alonge exhibit (a photo can be seen on the exhibit’s [website](#)). When docents began to get inquiries about how it was possible to have ivory pieces such as this one on display given the regulations against purchasing ivory, NMAfA added new signs to the exhibit providing additional detail. The sign reads:

“The hunting, trading, and carving of ivory in the Benin Kingdom was traditionally regulated by the *oba* or king. When this tusk was carved more than 150 years ago, the sale and export of ivory was legal. Today, the international trade in ivory is banned in an effort to protect endangered elephant populations.”

Bryna then described other kinds of carved ivory in the Museum’s collection, which includes some newer art acquired and donated by missionaries, and smaller pieces owned by herders and farmers such as jewelry that “may not be recognized as art by the untrained or foreign eye.” Unlike the royal art, these smaller pieces may be more vulnerable to being seized and crushed in efforts to destroy ivory stockpiles as they may be coming out of Africa. Bryna explained that while art made for foreigners is “usually of lesser artistic quality,” NMAfA began to collect some pieces starting in the mid-1990s, and when researchers began to study them, they found that it was possible to identify specific workshops that had produced these pieces, including iconography that referred to both foreigners and local religions. In other words, it was possible to use these pieces to learn more about African history and art production; they were valuable for research purposes and the best are of artistic value. Similarly, the museum holds numerous small pieces that were owned by farmers and herders, such as lip plugs or bracelets, many of which were created in the 1900s.

In looking closely at photos of the ivory crushed by the US Fish and Wildlife Service (USFWS), Bryna spotted pieces similar to these kinds of everyday objects that nevertheless are important cultural artifacts for African peoples. In particular, groups that have been displaced by conflict, such as the Nuer or the Dinka from South Sudan, likely brought their small pieces of ivory with them as they fled. Also at risk are chief’s trumpets from Sierra Leone and Liberia. Many of these kinds of objects would not be recognized as historically and culturally valuable except by a few people trained in African art history. Because of this, Bryna is concerned that they are vulnerable to destruction in the kinds of crush events such as the one organized by USFWS. Curators responsible for such objects “are concerned about the animals, but we are also

concerned about the risk of losing cultural heritage and artifacts.” This concern led to her choice of title: “art as an endangered species.” When such items are lost, “the elephant is not the only thing that died, it is also the artist’s legacy and culture of people that died.”

### *"The Curator's Ivory Dilemma"*

**Carlene Stephens** offered a perspective based on her experience as a curator of scientific objects in a talk entitled: “A Curator’s Ivory Dilemma: Thinking about Artifacts and Endangered Elephants.” She opened with a personal story about a special artifact that she had tried to purchase about a year ago: a 19<sup>th</sup> century timepiece called a marine chronometer. [This particular chronometer](#) had sailed on the Beagle with Charles Darwin from 1831-1836 as he accompanied Robert Fitzroy in his survey of the Pacific, as well as on the Northeast Boundary Survey in the early 1840s. It had a small ivory plaque embedded in it that read “two days” – the length of time the chronometer would run without winding.

Because of the stricter rules pertaining to elephant ivory recently imposed by the US Fish and Wildlife Service, the customs broker warned Carlene that if she won the auction -- and Carlene believes that the Smithsonian would have won – they would have to prove that the ivory was not from an African elephant or they would not be allowed to import it. The auction house in the UK offered to either undertake a DNA test or to remove the plaque, make a replica, and store the original “until such time when the ban was lifted;” either option would effectively destroy part of the chronometer in the process.

“Was he offering a clever compromise, or proposing vandalism?” Carlene asked. “You can draw your own conclusion, but I decided that the Smithsonian did not need to go either destructive route. In the 11<sup>th</sup> hour, I decided not to bid.” The piece sold to a private collector in Australia for 75,000 British pounds.

Carlene pointed out that although her story was centered on a particular object, it could have involved any number of the “myriad objects made partially or totally of ivory for US consumers over the centuries.” She asked: “What can we learn from this experience going forward?” suggesting that “for humanities professionals at SI, the biggest dilemma of all is how to serve our endangered historical ivory objects at the same time we advocate saving elephants from extinction.”

“One way to do this” Carlene continued, “is to consider the slaughter of elephants for ivory as a chilling episode relevant to a larger issue that the Smithsonian has begun to tackle: the Anthropocene,” a topic of interest to the broader scientific and humanities communities. A broad approach to studying the Anthropocene at the Smithsonian would involve both reinterpreting existing collections and adding new things, for example through a collaborative exhibit on the American bison or ivory.

SI humanities scholars are poised to contribute to a study of the Anthropocene by offering insights from studies of material culture and providing historical context about the transition

from consumption of ivory as a rare luxuries to the mass-production of industrial goods, and by documenting the global networks of people involved: slave traders, ivory merchants, and American consumers. Following in the footsteps of her late colleague, David Shayt, who studied the tradition of ivory working from handicraft to industrial production, this effort would trace the “history of ivory substitutes, beginning with celluloid and bakelite.”

While her inability to purchase Darwin’s chronometer was clearly a loss for the Smithsonian’s historic collection of timepieces, Carlene concluded on a positive note: “Optimistic discussions about the Anthropocene encourage responsibility for shaping the future of the Earth. Historians believe a better understanding of the past is a way to understand the present and shape the future. Maybe our ivory artifacts and the Earth’s remaining elephants can endure if we pool our collective expertise.”

*"What To Do About the Trade in Illegal Ivory"*

**Marshall Jones’s** talk was entitled, “What to Do about the Illegal Ivory Trade? An existential Crisis for Elephants – and Art?” He opened by explaining that best estimates put together by the IUCN specialist group suggest that around 500,000 African elephants remain in the wild, and while that may seem like a large number, only fifty years ago there were millions. The precipitous declines are uneven, with forest elephants in the worst shape; while large numbers of savanna elephants remain in Botswana and southern Africa, in other countries such as Tanzania, their numbers have declined significantly. While there is uncertainty about the exact number of elephant deaths, and while the losses are less the past two years, the numbers of elephants killed still “far exceeds the maximum reproductive potential of elephants.” And with less than ten percent of the population of African elephants, Asian elephant populations are even more endangered.

Elephants are “cognitive beings” with a long memory; when there is a drought, the older elephants in the herd remember where to go to find water, and can dig deeper into creek beds when water recedes. Elephants are a keystone species with an oversized effect on their habitat; many species benefit from their habitat modification and their knowledge, the transmission of which is disrupted when adult elephants are poached. The loss of elephants creates a negative feedback for elephant societies; the more poaching, the greater the trauma to herds, and the more there is a breakdown in their social fabric.<sup>2</sup>

Marshall described the links between the ivory trade, terrorism, and transnational organized crime. Groups like the Lord’s Resistance Army in Uganda trade poached ivory for weapons. Increasingly, groups like INTERPOL, the UN Office on Drugs and Crime, the World Bank, CITES, and the World Customs Organization are focusing on wildlife trafficking as a serious crime that is stealing patrimony from the world’s poorest countries, and recognizing that international cooperation to address the issue is critical.

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<sup>2</sup> Janine Brown from the National Zoo has published on this; see 2005 article by Bradshaw and colleagues in references section.

In 2013, President Obama issued an Executive Order on ivory during a visit to Tanzania, which is ground zero for ivory poaching, in which he promised to engage the entire US government in addressing the issue of wildlife trafficking. The order authorized agencies working on other areas of criminal activity to expand their mission so that if they found information about ivory while looking for drugs, for example, they were authorized to pursue it. While the Smithsonian is not a federal agency, through our Trust Instrumentality status we have been able to participate in meetings hosted by the US government as well as NGO meetings to coordinate responses to wildlife trafficking.

The African Elephant Conservation Act, which provides funding for African countries, enjoys bipartisan support. When it came under attack under Newt Gingrich's tenure as Speaker of the House, he went to the floor to fight for continuation of funding, and there has never been a challenge to it since; elephants are something that everybody owns. That Americans care a great deal about elephants is demonstrated in the volume of correspondence that the Fish and Wildlife Service gets when they are dealing with elephant issues, larger than any other species.

In terms of demand for ivory, while there was a time when the US was the leading importer back in the 1900s, China now has by far the largest illegal ivory market, with demand increasing significantly during the past 7 to 8 years.<sup>3</sup> According to CITES, 70% of illegal ivory is going to China. Nevertheless, Marshall pointed out that "any amount of illegal trade is too much," and since the US has the resources to address the issue, we should be taking the strongest possible stance to eliminate trafficking domestically as well as internationally.

Marshall explained that governments have been confiscating illegal ivory, which creates large stockpiles. There are different approaches and opinions about what to do with confiscated ivory; one approach that was tested in the 1980s was to sell it and reinvest the profits in conservation (legalization and re-commodification); this ended up leading to increase in prices. Today, this approach would end up enriching transnational syndicates, since they control the international trade. As long as governments keep the ivory in stockpiles, there is a high potential for corruption. So the alternative is to crush the ivory to take it off the market. Over the past few years, there have been a number of large crushes of stockpiled ivory, including [a large crush of 6 tons by the USFWS](#) in 2013. The majority of the crushed ivory was whole tusks and blocks, but it also included carved curios and apparently included as well a few items that may have been of historic and cultural value.

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<sup>3</sup> A question raised informally after Marshall's talk was "What do Chinese consumers of illegal ivory do with it?" In China, as it was historically in the United States, ivory is a luxury item used to denote class status, and is put on display in people's homes as polished tusks or carved trinkets. Unlike rhino horn and other illegally traded species, there is no "medicinal" use for illegal ivory in China. Unfortunately, an increasing amount of ivory is now being held by Chinese speculators, who are banking on a dwindling supply as elephants are killed and thus continually rising value for their stockpiles.

In terms of current and future legislation and its impacts on ivory trade, nearly all US ivory imports are currently banned under a new USFWS Director's Order issued in 2013 putting in place a more strict enforcement policy. The new enforcement policy is based on a literal reading of the provisions of the African Elephant Conservation Act, which authorized the original ivory import moratorium in 1989. It removes the exception for 100-year-old antiques adopted in 1989 as an exercise in law enforcement discretion. There continues to be an exception in law for sport-hunted trophies from a few African countries judged to have sustainable elephant hunting programs, and for ivory for scientific and forensics purposes. Temporary exhibitions including ivory objects also are excepted from the import ban, as are some musical instruments already in private ownership. Interstate commerce in ivory that was previously legally imported into the United States is still allowed. However, new regulations under development by the USFWS will likely propose to ban all interstate commerce in ivory for commercial purposes. USFWS anticipates releasing this draft rule for public comment within the next few months.

In addition, in 2014 New Jersey and New York adopted new state laws greatly restricting ivory trade within their borders (though bequests and ivory for educational purposes are excepted). At least 20 more states currently are considering new laws to further restrict the ivory trade. The debate continues about what exceptions there should be under these proposed new laws and regulations for educational, cultural, and historic objects. The new USFWS proposal will likely include an exception for objects with *de minimis* amounts of ivory (specifically based on the National Museum of Natural History's experience with Charles Darwin's chronometer). Some of the proposed new state laws also incorporate this *de minimis* concept. However, this would not allow exempt items substantially or completely made of ivory. The Smithsonian will continue to work with the USFWS to help it craft a new U.S. ivory policy that protects elephants from illegal ivory trade without endangering art and culture.

### *Discussion and Moderated Q&A*

After the panelists' presentations, there was a short question and answer period moderated by **Molly Fannon**, who opened by asking the panelists to comment on how they thought the Smithsonian as an organization could best address or reconcile the spectrum of responses it contains on the issue, from Bryna's feeling of cringing when she sees crushed ivory, to the need to stop trafficking of illegal ivory.

**Bryna** responded that she would like to see a preliminary assessment undertaken of ivory by a heritage professional before it is crushed so that there could be some reassurance that there was nothing of value historically or culturally that would be worth saving, since "some of the ivories out of context are difficult to recognize."

**Marshall** noted that USFWS was overwhelmed by the size of their stockpile (which since the crush has already begun to accumulate again), and that they were also "in a hurry to make a big gesture," without having the staff capacity to comb through it carefully; bringing in expertise for this would take money and time, but hopefully they could learn and adopt this approach in the future.

**Halle Butvin** from the Office of International Relations (in the audience) asked whether China is a signatory to CITES, and commented that it seems that the ivory trade has evolved significantly in terms of who is driving the market and how it's run, with a growing criminal element. It is hard to compare what is going on in China with Carlene's challenge in purchasing Darwin's chronometer. She asked: "If we think about historic circumstances changing over time, how is the Smithsonian positioned to deal with that?"

**Marshall** responded that China is one of 175 members of CITES.

**Carlene** said that what she has been learning about ivory as she prepared to participate in the forum was that the early ivory trade with Europe created an attitude that ivory is rare and desirable, which brought it into the system of international trade in a particular way. Starting in the 19<sup>th</sup> century with the effort to find a substitute for the billiard ball, you could start to see the beginnings of a realization that certain resources may not last forever. The urge to find substitutes isn't totally altruistic, but rather is based on an understanding that there isn't a limitless supply. From looking at ivory as resource to elephants as endangered species has a huge impact on trade behavior.

**Cynthia Hoover** from NMAH (in the audience) said that she works with musical instruments, and that many of her colleagues have been affected by the new ivory regulations, such violin players trying to come into country who are stopped at the border and have their bows taken from them because they have an ivory tip. This has the community very concerned. She wondered if there was any hope of having some easement of the regulation affecting museums and musicians.

**Marshall** responded that there is an exemption in the current restrictions for musical instruments, and that he sees that there is support (partly based in learning from the experience of Darwin's chronometer) for an exemption for items that have a *de minimus* amount of ivory in them. The new FWS regulations that will be proposed in the next few months will likely have *de minimus* built in. He noted that it is also the case that in making a new law, they cannot be more stringent in the final version than in the proposal, so that if anything, there may be some relaxation after public hearings and public comment.

**Dennis Kelly** then concluded the event by emphasizing that the Smithsonian must be a leader in thinking about this issue, and that Scott Miller will be heading up an effort to continue this dialogue about a very tough and important issue: saving a species and saving art.

## Resources:

### Bryna's suggested readings:

Hornbeck, Stephanie (N.D.) "Ivory: Identification and Regulation of a Precious Material." Washington, D.C.: Smithsonian National Museum of African Art.

<http://africa.si.edu/pdf/Ivory.pdf>

Howell, P.P. (1945). "A Note on Elephants and Elephant Hunting among the Nuer." *Sudan Notes and Records*, Vol. 26, No. 1, (1945), pp. 95-103. Published by: University of Khartoum.

<http://jstor.org/stable/41724748>

Patton, Sharon F. and Bryna M. Freyer. "Treasures 2008." Washington, D.C.: Smithsonian National Museum of African Art. <http://africa.si.edu/exhibits/treasures2008/tusk3.html>

Ross, Doran H. (ed). (1992). *Elephant: The Animal and its Ivory in African Culture*. Los Angeles: Fowler Museum of Cultural History, University of California. Curriculum guide:

<http://www.fowler.ucla.edu/category/exhibitions-education/elephant-animal-and-its-ivory-african-culture>

### Other resources:

Bradshaw, I. G. A., Schore, A. N., Brown, Janine L., Poole, J. H. and Moss, C. J. (2005). Elephant breakdown. Social trauma: Early disruption of attachment can affect the physiology, behavior and culture of animals and humans over generations. *Nature*, 433: 807.

Fisher, Max (2013). "An Alarming Map of the Global Ivory Trade." *Washington Post*: <http://www.washingtonpost.com/blogs/worldviews/wp/2013/03/15/an-alarming-map-of-the-global-ivory-trade-that-killed-17000-elephants-in-one-year/>

Grammaticus, Damian (2014). "Uncovering China's Illegal Ivory Trade." *BBC*: <http://www.bbc.com/news/world-asia-china-26167893>

Joyce, Christopher (2014). "Elephant slaughter, African slavery, and America's pianos." *NPR*: <http://www.npr.org/2014/08/18/338989248/elephant-slaughter-african-slavery-and-americas-pianos>

Keiper, Caitrin Nichol (2013). "Do Elephants Have Souls?" *The New Atlantis*: <http://www.thenewatlantis.com/publications/do-elephants-have-souls>

Smithsonian Conservation Biology Institute (2014). "Asian elephant conservation" [https://nationalzoo.si.edu/SCBI/ConservationGIS/projects/asian\\_elephants/](https://nationalzoo.si.edu/SCBI/ConservationGIS/projects/asian_elephants/)

Smithsonian National Zoological Park (2014). "Asian elephants." <http://nationalzoo.si.edu/Animals/AsianElephants/>

Stiles, Daniel (2014). Report: Elephant Ivory Trafficking in California, USA. Natural Resources Defense Council: [http://docs.nrdc.org/wildlife/files/wil\\_15010601a.pdf](http://docs.nrdc.org/wildlife/files/wil_15010601a.pdf)

Tobias, Ronald B. (2013). *Behemoth: The History of the Elephant in America*. New York: Harper Collins.

UNEP, CITES, IUCN, TRAFFIC (2013). *Elephants in the Dust – The African Elephant Crisis. A Rapid Response Assessment*. United Nations Environment Programme, GRID-Arendal. [http://www.cites.org/common/resources/pub/Elephants\\_in\\_the\\_dust.pdf](http://www.cites.org/common/resources/pub/Elephants_in_the_dust.pdf)

USFWS (2014). Why Crush Ivory? <http://www.fws.gov/le/elephant-ivory-crush.html>

Vigne, Lucy and Esmond Martin (2014). Report: China faces a Conservation Challenge: The Expanding Elephant and Mammoth Ivory Trade. Save the Elephants and the Aspinall Foundation. [http://savetheelephants.org/wp-content/uploads/2014/12/2014\\_ChinaConservationChallenge.pdf](http://savetheelephants.org/wp-content/uploads/2014/12/2014_ChinaConservationChallenge.pdf)

Wemmer, Christen and Catherine Christen, eds. (2008). *Elephants and Ethics: Toward a Morality of Coexistence*. Baltimore: Johns Hopkins University Press.

The White House (2014). National Strategy for Combatting Wildlife Trafficking. <https://www.whitehouse.gov/sites/default/files/docs/nationalstrategywildlifetrafficking.pdf>