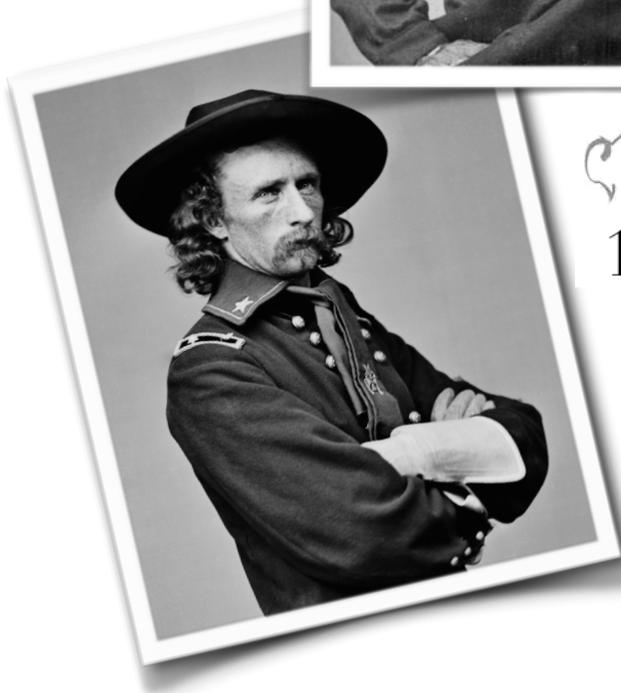
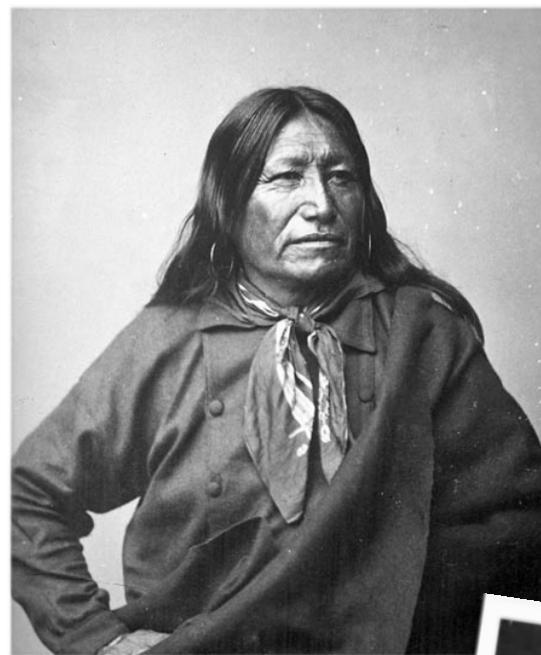


# CAMP1872

Virtually Commemorating the Sesquicentennial of  
The Royal Buffalo Hunt



# CAMP 1872

## Virtually Commemorating the Sesquicentennial of The Royal Buffalo Hunt



When we reflect on some of the most iconic characters of the American West of the 19th century, two names are likely to come to mind: General George A. Custer and William F. “Buffalo Bill” Cody. The former is remembered for his “last stand” at the Little Big Horn, the later as a famed “Wild West” showman.

Their paths crossed briefly in January 1872 on the high plains of southwestern Nebraska to entertain a Russian aristocrat: Grand Duke Alexis.

2022 will mark the sesquicentennial of those few days 150 years ago. This proposal seeks to use this event as a venue for utilizing immersive learning technology to not only better understand the impact of 19th century policy and practice in “settling” the Great Plains but to also use it a vehicle through which to discuss how to move towards a more environmentally and socially responsible future.

It is one thing to read about 'The Royal Buffalo Hunt' and the lore that has grown up around it, much of which is factual, some of which was fabricated to embellish the telling and the teller. As with any remote event in time, we may never have a complete picture of what transpired. However, using modern computer technology in the form of Mixed Reality (Augmented and Virtual) it is possible to "step back" in time and using A.I. algorithms to interact with some of the more important characters of the hunting party to better understand the reasons and rationale of the time to led to the extermination of the bison and subjugation of the nomad peoples of the Plains.

### **Historical Context**

The visit of the fourth son of Russian Tsar Alexander II to the United States during the administration of President Ulysses S. Grant marked what might be considered the perihelion of United States–Russian relations. Two years before President Lincoln issued the Emancipation Proclamation freeing America's slaves in 1863, Tsar Alexander freed Russia's 23 million serfs, granting them full citizenship. Tragically, like Lincoln, he too would be assassinated.

For reasons of both domestic – Alexis was having an affair with an older woman – and international relations, the Tsar sent his 21 year-old son on a months-long diplomatic mission, a significant portion of which was spent in the United States and included a bison hunt organized by General Phil Sheridan, accompanied by George Custer, and guided by Bill Cody. Although the hunt on Red Willow Creek south of Fort McPherson on the Platte only lasted a few days, it would become of stuff of legends. Four years before the tragic fight on the Little Big Horn, Sioux (Lakota) and U.S. cavalry peacefully cooperated in giving the Grand Duke

and his party of diplomats and attachés an exciting, if fleeting glimpse of the last days of the Plains Indians' nomadic life and of the bison on which their lives and livelihoods depended.

According to William T. Hornaday, writing in 1889<sup>1</sup>, the years 1871-1873 are considered the peak of the "extermination of the American Bison" on the southern Plains. He estimated that more than 3 million bison were slaughtered during this three-year span, some only for their tongues, many for their hides, most for the sheer pleasure of killing. The "Royal Buffalo Hunt" of 1872 was just one of many similar US government-sanctioned hunts typically arranged for the politically influential elite and organized and escorted by US Army troops on a still "untamed" frontier where fighting could and did break out between the encroaching White Man and native tribes.

But in the week of January 14th (a Sunday) to the 16th, two troops of the US 2nd Cavalry - estimated at some 100 men – and as many as 600 Lakota tribesmen under the overall leadership of Spotted Tail camped side-by-side on a low plateau overlooking the meandering Red Willow Creek, a site today recognized only by a privately erected granite monument and a roadside marker planted by the Nebraska State Historical Society.

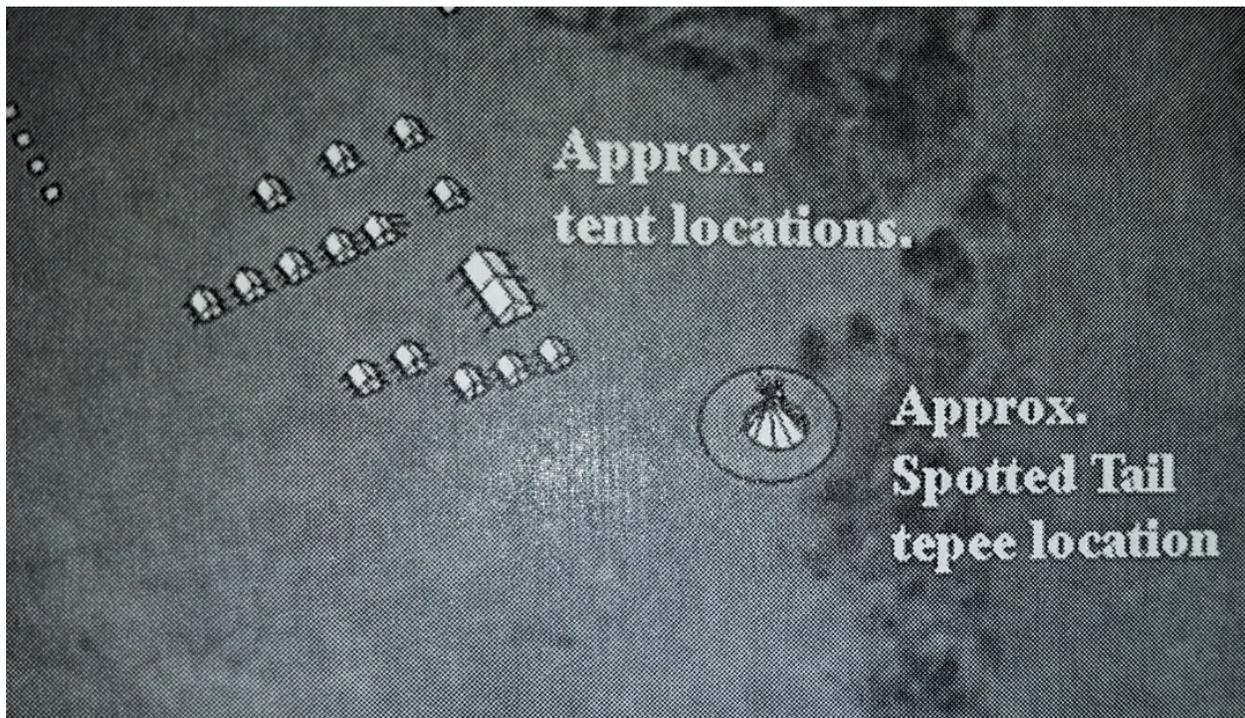
### **Previous Commemorations**

Local settlers in Hayes County in which the original campsite is situated, as well as in North Platte in Lincoln County, have long recognized the historical significance of the hunt and commemorated it in various ways over the intervening century and a half, from annual picnics

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<sup>1</sup> *Extermination of the American Bison*, William T. Hornaday, 1889

on the site - including the erection of a baseball diamond complete with chicken wire backstop - to more elaborate annual re-enactments, including impersonators for Custer, Cody and the Grand Duke<sup>2</sup>. The last re-enactment took place on Hayes Lake in 2014.



3D approximation of camp layout superimposed over satellite image of Red Willow Creek terrain. Graphic by Douglas Scott.

## Mapping the Camp Location

In 2008-2009 the site was extensively surveyed by the University of Nebraska Department of Anthropology, the results of which were compiled into *Custer, Cody and Grand Duke Alexis - Historical Archaeology of the Royal Buffalo Hunt* by Douglas Scott, Peter Bleed, and

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<sup>2</sup> [https://nptelegraph.com/news/buffalo-hunt-re-enactment-returns/article\\_566c780b-6e5a-5031-824f-aba223f5c100.html](https://nptelegraph.com/news/buffalo-hunt-re-enactment-returns/article_566c780b-6e5a-5031-824f-aba223f5c100.html)

Stephen Damm (University of Oklahoma Press, 2013). Combining 19th century artifacts unearthed on the site (glass, ceramics, metals) with rare stereoscope photographs taken during the hunt, the researchers were able to identify the types of shelters erected by the Army and their relative locations on the plateau. Using SketchUp (free version) and Photoshop, they were able to create a 3D model of the camp, which they present in 2D in their book.



1872 Eaton stereographs of the campsite superimposed over 2008-09 photographs. Graphics by Douglas Scott.

## **Virtual vs. Augmented Reality**

The half decade that has transpired since the publication of *Custer, Cody, and Grand Duke Alexis* has seen the advent of both Virtual Reality (VR) and Augmented Reality (AR). Ironically, one of the first widespread applications of VR was the 2016 release of the New York Time's

Cardboard headset and the simultaneous release of a VR app that positioned a 360 degree camera in the middle of a herd of wild American bison<sup>3</sup>. This was the author's first exposure to the technology.

Where VR typically immerses the viewer in an artificially-constructed world, Augmented Reality superimposes selected digitally-generated imagery over the "real world." In effect, it does what Scott, Bleed and Damm did for their book. Scott used Photoshop and SketchUp to help identify the location and orientation of photographs from the 1872 hunt. This enabled him to reconstruct the approximate location of the camp.

This proposal aims to pick up where the researchers left off by using Augmented Reality, in combination with 3D modeling and GPS



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<sup>3</sup> <https://www.nytimes.com/2016/01/21/opinion/sundance-new-frontiers-virtual-reality.html>

positioning – now available in most display devices – to digitally recreate the camp and do so in life-sized scale on site.

By way of example, the three digitally-created gray wolves on the previous page are positioned by GPS coordinates to appear only in a corner of Sarpy County's Walnut Creek Recreation Area through an A.R. app created for Android - which can also be made available to iOS devices - by the author in the Spring of 2019. The display device is a Samsung Galaxy 7 smart phone.

A similar approach can be utilized to scale-up the work of Scott, Bleed and Damm to replicate a life-size version of the 1872 camp on the location their survey identified in 2008-2009. ARCore and ARKit algorithms running on both Android and iOS devices respectively should even make it feasible to "virtually" go inside the interiors of the digital structures like the walled dinner tent or the Grand Duke's tent, as well as the exteriors as described in the Scott, et al treatise.

### **Historic Ava-STARs**

In the summer of 2019, Magic Leap demonstrated an AR avatar called "Mica."<sup>4</sup> This digitally-generated young woman was able to engage with individual persons viewing her through the company's AR eyewear. She showed them how to create a virtual collage on the wall, waiting patiently for them to respond and showing excited emotions at their success. Early in 2020, Samsung's independent STAR Lab released more information about its advanced NEON "artificial human."<sup>5</sup>

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<sup>4</sup> <https://www.youtube.com/watch?v=XNb42Lw0IBU>

<sup>5</sup> <https://www.youtube.com/watch?v=Q6f6EXX-79w>

What if, in addition to digitally reconstructing the 1872 camp on its site 150 years ago, it would be possible to also reanimate some of the principal participants: Custer, Cody, Alexis, Spotted Tail? Based on the work of Samsung, Magic Leap, and others, this should be technologically feasible with the steady improvements taking place in A.I. (artificial intelligence) and machine learning, along with the approaching advent of affordable A.R. eyewear controlled by powerful, portable, Blue Tooth or cable-connected micro-processors.

### **Private and Remote**

What made the Red Willow Creek site an ideal hunting camp for the increasingly scattered bison herds south of the Platte in 1872 – its remoteness – remains its principle drawback as well as its redemptive feature. The land also remains in the private hands of the descendants of some of the original homesteaders.

The site is located off a gravel county road some 8.5 miles east and north of the community of Hayes Center, population 203 (2019 est.). North Platte is some 70 miles north and McCook, Nebraska some 48 miles to the southeast. North Platte is served by Interstate 80<sup>6</sup>, while McCook has twice-nightly (12am eastbound, 2am westbound) Amtrak service between Omaha and Denver.

Any proposed application of A.R.-based educational “tourism” on the site of the camp would, of necessity, have to be with the consent and cooperation of the land-owners. A.I.-based interaction with virtual Custer, Cody, et al could take place anywhere on the globe, though it would lose some of its historical context in the process.

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<sup>6</sup> Average Daily Traffic Volume Jan-Aug, 2020 is 16,253 vehicles

Physical development of any location-based activities could be kept to a minimum since little disturbance of the actual site would be needed. All “construction” would be digital, with the exception perhaps of restrooms and provisions for handicap access at the remote site.

Digital development can be located wherever the talent is located: hopefully in places like the *Johnny Carson Center for Emerging Media*<sup>7</sup> on the campus of the University of Nebraska Lincoln.

### **Why?**

The Red Willow Creek camp site is remote and seemingly only of any real significance to local residents who are familiar with the story of how, for a few brief days during a classic January “thaw,” Russian aristocracy and legends of American lore ate, drank, killed, and caroused in a faraway corner of a “flyover” state.

Today the few bison that drew them and other wealthy hunters from as far away as Europe have long since vanished from the region, as have the Lakota that once followed the bison north and south of the Platte.

Yet, embedded in their story are important lessons, both educational and economic that need telling, especially now, starting with the acknowledgment that any resource that seems limitless, be it bison, aquifers or oil isn’t. In the roughly 70 years from 1830 to 1900, the estimated 50-100 million bison that roamed North America were reduced to a mere 500 when Hornaday wrote his book. According to his research, for every bison hide hauled east by the Kansas Pacific<sup>8</sup> railroad to be

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<sup>7</sup> <https://arts.unl.edu/carson-center>

<sup>8</sup> The Union Pacific did not keep records of the bison hides it transported east.

turned into leather drive belts for machinery, three-to-five carcasses were left to rot on the plains. Their bleaching bones so littered the ground that it was said they prevented farmers from tilling the soil until bone collectors filled millions of cart-loads with them in the 1880s, sending them to Detroit to be crushed and turned into carbon black to purify white sugar.

The slaughter of the bison not only cleared the Plains of a major impediment to the establishment of conventional agriculture and cattle raising, but it also checked what was perceived by whites as the threat posed by nomadic tribes whose way of life was dependent on the very bison upon which the likes of Cody, Custer, and their ilk made "sport." And with the decimation of the tribes a way of life nearly vanished, one that would prove crucial to a nascent conservation movement. It would be Hornaday's bison preservation efforts in the 1890s that would spur a Republican governor from New York, Theodore Roosevelt, to become the nation's first environmental President.

The *2011-2021 Comprehensive Plan Update and Zoning Regulations for Hayes County* says, in part, in its preamble the following:

*The vision for Hayes County is... to promote and grow a diverse economic base while keeping the emphasis in agriculture... Create a variety of job options, agricultural and non-agricultural... Promote sustainability, renewable energy sources, and the conservation of natural resources.*

The rationale behind events like the Royal Buffalo Hunt of 1872 and the results of the policies underpinning it, can teach a very powerful lesson to current and future generations. It isn't just the citizens of Hayes

County that seeks to “promote sustainability, renewable energy resources, and the conservation of natural resources.” It needs to be the entire world and what better way to facilitate that than virtually taking us “back in time” so we can better understand why our forebearers made the decisions they did and how we inherited the consequences, for good and for ill. What better way to learn than through the lens of digital-enhanced hindsight, not “in the room where it happened,” but on its very ground....in Hayes County, Nebraska.

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