The Bust of the Nefertiti

Discover the way the story of this ancient treasure

1. Theoretical Part

1.1. Relevance of the topic

The bust of Nefertiti is one of the most iconic and celebrated artifacts from ancient Egypt. It is a painted limestone sculpture believed to depict Queen Nefertiti, the wife of Pharaoh Akhenaten, who reigned during the 14th century BCE. The bust was discovered on December 6, 1912, by the German archaeologist Ludwig Borchardt at the ancient Egyptian city of Amarna (also known as Akhetaten), which was the capital city established by Pharaoh Akhenaten.

The discovery of the Nefertiti bust was part of a larger excavation campaign conducted by Borchardt and his team from the German Oriental Company. They were working on behalf of the Egyptian Museum in Berlin, which was granted a concession by the Egyptian authorities to carry out excavations at Amarna.

The bust of Nefertiti is a remarkable work of art, showcasing exquisite craftsmanship and artistry of ancient Egyptian sculptors. It is highly regarded for its lifelike portrayal of the queen, with finely detailed facial features, an elegant crown, and a serene expression. The sculpture is approximately 50 centimeters (20 inches) in height and is noted for its exceptional preservation and vivid colors.

Nefertiti's bust has been considered a symbol of beauty and femininity throughout history. Its discovery has had a significant impact on our understanding of ancient Egyptian art and culture during the Amarna period. The artistic style seen in the bust is distinct from traditional Egyptian art, reflecting the radical changes brought about by Pharaoh Akhenaten's religious reforms, which focused on the worship of the sun god, Aten.

The bust of Nefertiti is housed in the Neues Museum in Berlin, Germany, and remains one of the museum's most prized possessions.

However, the ownership and display of the artifact have been a subject of debate and controversy between Egypt and Germany. Egypt has requested the repatriation of the bust, arguing that it was taken from the country under questionable circumstances. The debate over the bust's ownership and its place of display continues to be a topic of discussion among scholars, archaeologists, and cultural heritage advocates.

1.1.1. Colonial looted art

As there was a colonial law at that time, that says every find has to be shared between the country where it was found and the country where the archeologists are from, the appropriation was in theory legal.
But it needs to be considered that the Europeans who dominated Egypt at the time as a colonial protectorate also ran the administration of its antiquities.
Historically, the acquisition of the Nefertiti bust is highly problematic. Egypt was a de facto British protectorate from 1882. Nefertiti thus came to Germany under the conditions of European foreign rule.

This regulation was invented by the protectorate power England and the French, who were responsible for the administration of antiquities, so the sharing of finds is a colonial right.
Egypt has frequently asked for the return of the bust, which has an estimated value of 300 Million euros, several times without success. So the bust of the Nefertiti is still one of Berlins' most famous exhibits, attracting thousands of visitors in the last decades and resisting all attempts at repatriation.
Illicit international trade in objects of art and culture is steadily growing. Theft, looting, illicit importation, and exportation of cultural pieces are well-known practices, which often increase during colonization or periods of decreased security, such as wartime. This can be disastrous for archaeological objects as they will lose the context in which they are buried which is indispensable for their interpretation.
To better fight this trade, the UNESCO Convention on the Means of Prohibiting and Preventing the Illicit Import, Export, and Transfer of Ownership of Cultural Property of 1970, commonly referred to as UNESCO Convention 1970, entered into force.

It provides a common framework for the States Parties on the measures to be taken to prohibit and prevent the import, export, and transfer of cultural property.

For the Convention, the term "cultural property" means property that, on religious or secular grounds, is specifically designated by each State as being of importance for archaeology, prehistory, history, literature, art, or science.[1]

So It says that state parties should adopt protection measures in their territories, control the movement of cultural property and return stolen cultural property at the request of the State Party of origin, another State Party will seize and return cultural property on its territory stolen from a museum, religious institution or public monument.
Certainly, there are several requirements to make this convention applicable.
So for example the object has to be documented as being part of the inventory of the institution or country that is requesting, which is often a common problem as many museums and other institutions lack documentation.

1.2. Digital Experience

As the bust was displayed on several continents and in different contexts, the digital way is a good chance to allow better insights and to give an overview of the story of this ancient treasure.
I decided to present the story in different stations, therefore I created a timeline to structure it. Each part describes an important fact or detail about the bust, where needed is an additional button integrated to include different media types such as images or videos.
Virtual museums and digital extensions of exhibitions bring many benefits.

In the publication "Museums in a Digital Age," Jennifer Trant explores the impact of digital technologies on museums and how they have transformed various aspects of museum practices and visitor experiences. She is a prominent figure in the field of museum informatics and digital cultural heritage. She co-founded the Museums and the Web conference, which has become a leading international event for professionals working at the intersection of museums and technology.

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[1] https://en.unesco.org/fighttrafficking/1970

Trant's work has significantly influenced the discourse on digital strategies in museums and the integration of technology for enhancing visitor experiences and collections management.

Trant discusses the concept of "emerging convergence", referring to the integration and merging of traditional museum practices with digital technologies. This convergence has led to innovative ways of presenting and interpreting cultural heritage.

She also highlights the importance of digitizing museum collections. By creating digital representations of artifacts, artworks, and historical objects, museums can enhance accessibility, preservation, and research potential as it allows a wider and more diverse audience, lowers the threshold, and adds accessibility. Virtual exhibitions allow museums to engage with visitors beyond their physical locations, breaking down geographical barriers and enabling museums to reach global audiences. Virtual exhibits can be accessed by people from different parts of the world, increasing the museum's outreach and impact.

Online platforms can be further designed to accommodate people with disabilities or language barriers, making cultural heritage more inclusive.

Beyond that, more objects can be displayed, as space is not an issue. The Louvre for example shows only eight percent of its permanent Collection, the Guggenheim only three due to a lack of space.

Another advantage of digitizing museum experiences is the potential for user participation and engagement in the digital age. Interactive features, social media, and user-generated content enable visitors to have a more active role in the museum experience.

Obviously, there are also challenges that museums face in adapting to the digital age, including issues of copyright, digital preservation, and data management.

1.2.1. Digital Storytelling

Digital technologies have enabled museums to adopt innovative storytelling methods. It allows museums to incorporate various forms of multimedia, such as videos, images, audio, and animations, into their exhibits. This multimedia approach enhances the visitor experience, making it more dynamic and captivating.

Through digital technologies like virtual reality (VR) and augmented reality (AR), museums can create immersive experiences that transport visitors to different time periods or locations. This immersion enables visitors to engage more deeply with historical content.

More than that, digital storytelling offers opportunities for personalization. Visitors can choose their own paths through exhibits, selecting content that aligns with their interests. Personalized experiences foster a sense of ownership and involvement.

There is also the factor of interactivity, digital platforms can enable interactive storytelling, where visitors actively participate in unfolding narratives. This can be something like clickable objects, quizzes, and choose-your-own-adventure formats that make the storytelling experience more engaging[2].

Including a Quiz about the journey of the Nerfetiti Bust could not be realised within the scope of this project but is planned for future development.

Another very important point is the one of contextualization.

Digital storytelling allows museums to provide additional context and background information to enrich the visitor's understanding of artifacts and historical events. This contextualization enhances the learning experience and allows different perspectives.

2.1. Technical Part

To create the timeline as described I used HTML, CSS and JavaScript.

As a starting point I did some research about the different timeline options such as fullscreen timeline, which I also started to code (s. Attachment 1) and panel timeline but then decided for the one with circles as it allowed the best overview and usability for my use case.

After creating the basic timeline, I started to code the modal and the buttons to allow user interaction and to create space for multimedia elements.

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[2] Ross, C., Szczepek Reed, B., & Warwick, C. (2018). Heritage in the Digital Era: Museum Visitor Experience in an Online World.

In this part I experienced several issues. The modal did not open in the beginning until I realised that some ID's of the buttons and the HTML structure are not assigned correctly ("btn1","btn2",.. / "myModal", "myModal2",..). As a consequence I had to adjust the JavaScript Code accordingly (<button onclick="openModal(modal1)" id="myBtn">Open Picture of the excavation team</button>,…).

The alignment of the containers and the circles was kind of tricky, as it broke over and over again when changing or extending the code but could be resolved with fixing the order of the code snippets in the end. Then I also had to fix the overlapping circles when the modal was open, which worked with changing the z-index.

As a next step I did some more research, collected different media types and structured the steps that I want to integrate to fill the modal with content.

After completing the basic structure I wanted to make it appear more dynamic, so I decided to add background video. Related to the topic chose the desert and downloaded it open source. As an opener, to welcome the Visitors I wanted to use an image of the bust that appears only in the first three seconds and gives a quick idea what the website is about. It took me a while to bring everything in the right format but it worked in the end.

2.1.1. Testing and Improvement

For testing purposes I prepared a questionnaire, including the following questions:

1. *What is this website about?*
2. *What is the purpose of this website?*
3. *Name 3 things you like*
4. *Name 3 things you don't like*
5. *Did you experience any technical issues?*
6. *What would you do better?*

The first two questions where answered quite satisfying as everyone identified the content and purpose of the website easily. The most common thing they liked was the opening image, the background video and the different media types included.
Things they did not like where related to technical issues and usability problems which I was able to fix such as closing the pop-up window with clicking anywhere else (not only at the closing sign) or aligning the opening image to the browser size.

Something they would do better or they would wish for was a completion, one suggested a pop-up for getting feedback, someone else a chat function to allow visitors to interact or a quiz.

2.1.2. Conclusion

In conclusion, working on the code for my digital exhibition has been quite challenging as it was my very beginning with HTML, CSS, and JavaScript, but also a lot of fun and good learning. I experienced several challenges, had to do a lot of research, and followed the trial-and-error method.

But I liked the process of developing the idea, the concept, and the implementation a lot. Of course, there is room for improvement and the website is considered as MVP and work in progress. As mentioned before a quiz is definitely a feature that is planned to be integrated in future development. But beyond that, there are several ideas for other features like a User Count or Chat function.

The dynamic and flexible nature of digital exhibitions motivates me to experiment, iterate, and continually improve the user experience.

Sources

1. Dreyfus, R., & Forshaw, R. (Eds.). (2009). The Nefertiti bust. Harvard University Press.
2. Dodson, A., & Hilton, D. (2004). The complete royal families of ancient Egypt. Thames & Hudson.
3. "Nefertiti Bust." Neues Museum - Staatliche Museen zu Berlin. https://www.smb.museum/en/museums-institutions/neues-museum/exhibitions/detail/nefertiti-bust.html
4. Reeves, C. N. (2015). Ancient Egypt: The Great Discoveries: A Year-by-Year Chronicle. Thames & Hudson.
5. Hawass, Z., & Brock, L. (2016). "The Bust of Nefertiti: Remembrance and Reality." Archaeology, 69(6), 38-42.
6. Ross, C., Szczepek Reed, B., & Warwick, C. (2018). Heritage in the Digital Era: Museum Visitor Experience in an Online World.
7. unesco.org: https://en.unesco.org/fighttrafficking/1970 [last access: 2.9.2023]

Attachment 1:

```html
<!DOCTYPE html>
<html>
<head>
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<style>
body{
    font-family: 'Open Sans', sans-serif;
}

.section {
 text-align:center;
 font-size: 3em;
 color: white;
}

.section img{
 border-radius: 50%;
 height: 200px;
 width: 200px;
 object-fit: cover;
 margin: 0 auto;
 display: block;
 box-shadow: 0 10px 30px rgb(0 0 0 / 15%), 0 1px 4px rgb(0 0 0 / 15%), 0 1px 0 rgb(0 0 0 / 7%);}
#fp-nav ul li a span,
.fp-slidesNav ul li a span{
 background: white;}
h1{
 margin: 0 0 20px 0;}
@media screen and (max-width: 700px) {
 h1{
   font-size: 2em; }
 .section{
   font-size: 1.5em;}
 .section img{
   width: 100px;
   height: 100px;
 }
```

```html
}
<div id="fullpage">
<div class="section" id="section1">
<h1>Journey of Nerfertit Bust</h1>
</div>
<div class="section">
 <img src="https://en.wikipedia.org/wiki/Nefertiti_Bust#/media/
File:Nofretete_Neues_Museum.jpg" />
<h1>1991</h1>
<div class="content">
  PLACEHOLDER
</div>
</div>
<div class="section">
 <img src="https://en.wikipedia.org/wiki/Nefertiti_Bust#/media/
File:Nofretete_Neues_Museum.jpg" />
<h1>1992</h1>
<div class="content">
  PLACEHOLDER
</div>
</div>
<div class="section">
<img src="https://en.wikipedia.org/wiki/Nefertiti_Bust#/media/
File:Nofretete_Neues_Museum.jpg"/>
<h1>1994</h1>
<div class="content">
  Nerfetiti Bust
</div>
</div>
</div>
new fullpage('#fullpage', {
  // get one from
  // https://alvarotrigo.com/fullPage/pricing/
  licenseKey: 'YOUR KEY HERE',

  navigation: true,
  sectionsColor: ['#ff5f45', '#0798ec', '#fc6c7c', '#fec401'],
});
```