

## Digital Humanities – Lecture 9 – April 22nd 2026

We have often heard of virtual museums, virtual visits to the artistic heritage, virtual galleries with online sales.

We think this modality doesn't work for the most part. In the digital world, touch, smell, taste do not play a significant role: the three senses are still mostly cut off from computation. It's no small thing to be able to be a replacement. What we have with an object is a physical relationship, as well as what we have with people: nothing, until now, can replace our senses and the complexity of our mind based on this organic starting point.

However, the digital dimension can partially replace what we cannot see, or cannot touch, or feel in a larger sense, at least when we cannot fully do it. And most importantly, when something has disappeared from the real world or is not easily accessible, or is hidden from our eyes. Here we have reached the point where the digital humanities can bring very interesting results to institutions responsible for the conservation, care and promotion of objects related to memory, such as museums.

### **SLIDE 2**

MARTHA TEDESCHI: So Francesca, as we think about digital technology in the museum sphere and digital platforms and what we do with data, I think it might be useful to think about a few specific projects. And there's one very interesting one that you

were involved with in recent years which looked at van Gogh's painting, Three Pairs of Shoes.

And I wonder if you want to tell us a little bit about what that project entailed, and maybe beyond that, comment on what kind of data did you extract from this analog object.

And how did that fit into the project?

FRANCESCA BEWER: So the Three Pairs of Shoes ended up being part of the beginning of a collection of digital tools which we decided to offer our audience as an alternative to interpretive materials in the galleries as printed materials. So it was one of the experiments that we worked on to provide a digital tool or form of information.

The research for the Three Pairs of Shoes had already been done by conservators several years earlier. It seemed like a very appealing case study, let's say, because it's Vincent van Gogh, and in particular because it was a very good example of one of the paintings, one of the many paintings that he painted over another painting.

And this practice of reusing previous paintings is something that many people aren't aware of. In his case, we know that he painted over around 60 or more paintings. I think most people know that he was a poor artist who was always struggling to find materials, and he also painted very quickly. So if one looks closely at the painting, one can see that there's something about the surface of the paint layer that doesn't quite correspond to the image that is most obvious. And one of the goals of these digital tools was to try to encourage our viewers, our visitors to look more closely at the objects in the collection. So this is one of the challenges in producing interpretive materials in a museum, and especially digital ones-- how to find a good balance between the source of information, which is an attractive, shiny little digital tool, and trying to get people to look closely at the artwork, which is ultimately what we're trying to achieve. The data that was produced-- there are different forms of digitized or digital data. We have the images. We also have digitally captured information about the elements that the paintings are made up of, which we produce by X-ray fluorescence analysis. We used digital [X-radiography. ?] And in the tool itself, we used a lot of interactive features in order to encourage the viewer to follow along the storyline of discovery of what lay beneath the surface. For instance, we started with just the overall view of the painting and then offered the viewer, almost immediately, the ability to scroll back and forth between the X-ray of the painting. And you can see invisible light in order to understand that there's something that's totally different that's underneath and that helps to explain what that thing is. And from there, we move to having to rotate that image in order for people to understand it's actually a vase of flowers. Interestingly enough, that vase of flowers, that painting,

is very close to one that's in the Kroller-Muller Museum in Holland that itself is painted over a scene of two fighters or wrestlers, boxers. And a lot of research has recently been done on that painting too, which is being digitized.

And then we also introduced-- because if you look very closely at the surface, you can start seeing the paint, the colorful paint bits shining through the cracks in our painting that show the colorful flower bouquet that's underneath. And so those are areas in which the conservators and the conservation

scientists did some spot analysis and were trying to figure out what the pigments were. And we used that material to digitally produce the little map of the colors of the flowers. So there's a lot of digital data gathering that goes into producing the scholarship behind the images that we then offer and the story that we try to create.

### SLIDE 3

<http://www.fondazioneprada.org/project/carne-y-arena/?lang=en>

7 Jun 2017 – 15 Jan 2018

Alejandro G. Iñárritu's "CARNE y ARENA (Virtually Present, Physically Invisible)," is a virtual reality installation produced and financed by Legendary Entertainment and Fondazione Prada.

Included in the Official Selection of the 70th Festival de Cannes, the project is currently presented in its extensive full version in the Deposito at Fondazione Prada in Milan.

Based on true accounts, the superficial lines between subject and bystander are blurred and bound together, allowing individuals to walk in a vast space and thoroughly live a fragment of the refugees' personal journeys. "CARNE y ARENA" employs the highest, never-before-used virtual technology to create a large, multi-narrative light space with human characters.

The experimental visual installation "CARNE y ARENA" is a six and half minute solo experience that reunites frequent collaborators Alejandro G. Iñárritu and three-time Academy Award®-winning cinematographer Emmanuel Lubezki alongside producer Mary Parent and ILMxLAB.

"During the past four years in which this project has been growing in my mind, I had the privilege of meeting and interviewing many Mexican and Central American refugees. Their life stories haunted me, so I invited some of them to collaborate with me in the project," said four-time Academy Award-winner Iñárritu. "My intention was to experiment with VR technology to explore the human condition in an attempt to break the dictatorship of the frame, within which things are just observed, and claim the space to allow the visitor to go through a direct experience walking in the immigrants' feet, under their skin, and into their hearts."

As stated by Germano Celant, Fondazione Prada's Artistic and Scientific Superintendent, "with 'CARNE y ARENA', Iñárritu turns the exchange between vision and experience into a process of osmosis in which the duality between the organic body and the artificial body is dissolved. A fusion of identities arises: a psychophysical unity in which, by crossing the threshold of the virtual, the human strays into the imaginary and vice versa. It is a revolution in communication in which seeing is transformed into feeling and into a physical engagement with cinema: a transition from the screen to the gaze of the human being, with a total immersion of the senses. Iñárritu's project perfectly embodies Fondazione Prada's experimental

vocation and its long-lasting engagement towards the correlation between cinema, technology and the arts.”

## **SLIDE 4**

### **DNP Museum Lab Encapsulating Tomorrow's Basics of Museum**

In its endeavour to provide society with opportunities to understand the diversity of perspectives and viewpoints, Dai Nippon Printing Co., Ltd. (DNP) seeks new ways to experience art and culture from various regions and epochs, thereby fostering people’s sensitivity to many mindsets and values, through a diverse range of cultural initiatives and activities.

“DNP Museum Lab” is a cultural initiative from DNP, working alongside museums to encapsulate a way of fostering familiarity with diverse cultural and artistic contexts. Its core preoccupation is to make art and culture easily accessible to everyone, by developing methods and establishing environments that can unlock background knowledge and generate surprise, emotion, empathy and clues to understanding. By helping to boost conventional museum functions (collections, preservation, research, exhibitions and education) and to encapsulate each epoch in an appropriate manner, it aims to bring a richer dimension to people’s encounters with art and culture.

In conjunction with the opening of the "Globes in motion" exhibition, Francois Nawrocki, deputy director of the Maps and Plans Department at the National Library of France (BnF), will present a lecture.

After the lecture, participants are cordially invited to a special tour of the exhibition.

#### **Abstract**

From Ancient times to the Middle Ages and after, scientific progress, night sky observation and exploration of faraway lands have led mankind to design geographical and cosmological representations of the world. Terrestrial and celestial globes produced mainly in the West and in the Arab world demonstrate constant trials to reconcile observation and theory, science and beliefs, craving for knowledge and understanding of the universe mysteries. At the crossroad of science, art and philosophy, the precious globes compile proven knowledge and assumptions, as consistency and perfection were sought for. The BnF collection of ancient globes, now available in a 3D digital format, depict the constantly evolving history of the world, both terrestrial and celestial, as imagined, dreamed of, interpreted, challenged and revised by mankind in the face of scientific proof.

## SLIDE 5

When the analysis of museum objects passes into the hands of an artist: in 2013 artist Camille Henrot's fellowship at the Smithsonian Institute resulted in her film *Grosse Fatigue*, for which she was awarded the Silver Lion at the 55th Venice Biennale.

It is a narrative extension of objects, where digital images and their techniques open up to a very interesting museum scenario.

## SLIDES 6 and 7

[https://en.wikipedia.org/wiki/Chauvet\\_Cave](https://en.wikipedia.org/wiki/Chauvet_Cave)

The cave has been sealed off to the public since 1994. Access is severely restricted owing to the experience with decorated caves such as Altamira and Lascaux found in the 19th and 20th century, where the admission of visitors on a large scale led to the growth of mold on the walls that damaged the art in places. In 2000 the archaeologist and expert on cave paintings Dominique Baffier was appointed to oversee conservation and management of the cave. She was followed in 2014 by Marie Bardisa.

Caverne du Pont-d'Arc, a facsimile of Chauvet Cave on the model of the so-called "Faux Lascaux", was opened to the general public on 25 April 2015. It is the largest cave replica ever built worldwide, ten times bigger than the Lascaux facsimile. The art is reproduced full-size in a condensed replica of the underground environment, in a circular building above ground, a few kilometres from the actual cave. Visitors' senses are stimulated by the same sensations of silence, darkness, temperature, humidity and acoustics, carefully reproduced. A virtual visit of the cave, made from 3D imagery, is also available to the public.

## SLIDES 8, 9 and 10

In 2020 at the Serpentine's Gallery London *Cambio* is the third design exhibition of design duo Formafantasma.

Formafantasma (Andrea Trimarchi and Simone Farresin)

"is a research - based design studio investigating the ecological, historical, political and social forces shaping the discipline of design today...Formafantasma analytical nature translates in meticulous visual outcomes, products and strategies."

(<https://formafantasma.com>). Their Studio is in Amsterdam.

The online screening of Formafantasma's new film *Quercus*, is presented in conjunction with the exhibition. The exhibition was closed immediately due to the pandemic, but the film was and still is available online.

From the online catalogue:

“This film has been produced by manipulating a Lidar scan of an oak forest in Virginia. Lidar technology, which comes from the terms "light detection and ranging," uses lasers to scan and record large surface areas and has often been used in cartography and archaeology. More recently, it has been adopted by the timber industry in order to selectively log trees, but like other mapping techniques included in Formafantasma’s exhibition at the Serpentine Galleries, could be repurposed for conservation. Here, it provides an opportunity to consider humans from the point of view of the trees, with a voiceover written by philosopher and botanist Emanuele Coccia.”

## **SLIDE 11**

Online screening: Formafantasma, Quercus, 2020  
March 24-31, 2020

[www.e-flux.com](http://www.e-flux.com)  
[www.serpentinegalleries.org](http://www.serpentinegalleries.org)

Serpentine Galleries and e-flux present an online screening of Formafantasma's new film Quercus, 2020.

This partnership builds on many previous collaborations between the Serpentine and e-flux such as the Agency of Unrealised Projects (AUP) in 2012.

Quercus will be on view from Tuesday, March 24 through Tuesday, March 31, 2020, and is the first in a series of film, video, and live event collaborations to be hosted on e-flux Video and Film in the coming weeks.

Formafantasma, Quercus, 2020

Video, 12:08 minutes

Courtesy of the artists

Collaboration: Emanuele Coccia

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Coccia’s text questions our own sense of dominance, observing the degree to which humanity is dependent upon the form and physicality of trees. It suggests a crucial shift in perspective if we are to find more radical ways of living with and protecting these complex ecosystems, one that stems from the understanding that humans and trees are inextricably interlinked.

The film is presented in conjunction with the exhibition Formafantasma: Cambio, which opened at Serpentine Galleries on March 4, 2020 and is temporarily closed in response to the spread of coronavirus.

Formafantasma (Andrea Trimarchi and Simone Farresin) return to the Serpentine following their participation in Serpentine's Radical Kitchen Live Programme and the Work Marathon in 2018. Cambio is the third exhibition of design in the Serpentine's history, following German product designer Konstantin Grcic's curated show on groundbreaking contemporary design, Design Real, in 2009/10 and influential London-based Italian designer Martino Gamper's guest-curated exhibition design is a state of mind in 2014. It heralds the Serpentine's commitment to embedding design practice, research and thinking into its programming from 2020 onwards.

Cambio brings together films, objects, artefacts and samples, including specially designed furniture made from a single tree felled during the 2018 storm Vaia in Val de Fiemme in Italy; wood samples loaned by institutions around the world, from the Royal Botanic Gardens at Kew to the Royal Museum of Central Africa in Belgium; smells specially developed to evoke the wet earth and flora of a forest, and maps of the rainforest made by indigenous communities in the Amazon. Cambio offers a re-evaluation of our relationship with trees and poses a series of essential questions about design and sustainability, most pertinently: what can we do to better understand the connection between the objects we use and the conditions that produced them?

Italian design duo Formafantasma are based in Amsterdam, The Netherlands. Their work looks at design's ecological and political responsibilities, while probing the global industries that consume natural resources.

Watch other works included in the exhibition and learn more at [www.cambio.website](http://www.cambio.website). For more information, contact program [at] e-flux.com.