

AHST 2331-001 (21414)

Understanding Art

Dr. Charissa N. Terranova

Spring 2018

Tuesdays and Thursdays 11:30-12:45

ATC 1.102

Office Hours: Tuesday 2:30-3:30
and by appointment

Office Location: ATC 2.704

Contact: terranova@utdallas.edu

Teaching Assistants:

Linda Anderson: lka160130@utdallas.edu

Francesca Brunetti: fxb140730@utdallas.edu Daniel

Christmann: dwc170030@utdallas.edu

Elham Christine Khiabani: eck130030@utdallas.edu

Tuesday 01/09/18

Introduction

DESCRIPTION:

This course offers a general investigation into the hybrid realm of art-science-technology.

The class focuses on the nature of the visual arts and architecture and the role of science and technology therein. It emphasizes the influence of scientific and technological invention on the issues and ideas that artists explore through their work and how these ideas translate into the artwork. Attention is given to the interpretation of the role of science and technology within art and architecture and how the forces together relate to and constitute society over the last two millennia.

THEMES:

There are three primary themes in this class, which are often interwoven each week. This means, most lectures have elements of each theme.

Virtual Reality: In the most basic sense, “virtual reality” or VR refers to an experience that is not exactly real, but near real. Humans have been creating near real experiences in VR for several millennia. This class will study the human penchant to recreate reality virtually in drawing, painting, architecture, and through digital technology.

Infrastructure: The term infrastructure refers to the basic, underlying framework or features of a system or organization. Often, these basic frameworks serve a country, city, or defined area. Examples include sewer and light systems, transportation and communication systems, power plants, and schools.

Extensions of the Senses and/or Prosthetic Extensions: The great Canadian media theorist Marshall McLuhan used the word “extension” to describe various technological media, ranging from writing and moveable print-type to film and the automobile to photography and the computer. This class explores how such technological extensions function as prosthetics which enhance the capabilities of the basic human body.

ORGANIZATION:

The class is organized around theme-driven modules that include short reading assignments, lectures, in-class note-taking, films, quizzes, and discussion.

REQUIREMENTS:

Students are required to attend every class, complete all assignments, and participate with candor and verve in class. Students are allowed two unexcused absences after which each absence will result in the lowering of the final grade by a half a letter grade. Students with illnesses that require extended periods of absence are encouraged to officially withdraw from class.

ASSIGNMENTS – QUIZZES, NOTEBOOKS, EXAMS:

Quizzes: Each sub-module culminates with a quiz, which is then followed by discussion. The quizzes consist of one very general question derived from the week's reading assignment(s). There are twelve quizzes in the class. Percentage of grade: 30%.

Notebooks: Students are required to keep a notebook that records attendance and the notes you have taken based on lectures, in-class discussions, and/or films. Each entry should be dated and titled. The title should come from the professor's lecture title and/or the syllabus. Students are encouraged to use bullet points and titles of works of art from presentations to organize notes. Notebooks must be neatly handwritten and bound in a notebook. Students submit notebooks for a grade at the midterm on **Thursday March 2, 2017** and at the final exam, tba. Percentage of grade: 40%.

Exams: There are two exams in the course, a mid-term on **Thursday March 1, 2018** and a final exam, tba. The tests consist of slide identification and short answer questions. The test material is taken from the lectures. The professor distributes a review sheet prior to each test. Percentage of grade: 30%.

READING ASSIGNMENTS:

The reading assignments are available in your textbook and at the Docutek website listed below:

1. Textbook: Oliver Grau, *Virtual Art: From Illusion to Immersion*. Cambridge, MA: MIT Press, 2003.
2. Docutek, an on-line resource offered by the university library:
 - Docutek URL: <http://utdallas.docutek.com/eres/coursepage.aspx?cid=2248>
 - Docutek Password: invention

SLIDE PRESENTATIONS:

All slide presentations are available at www.charissaterranova.com.

CLASSROOM BEHAVIOR:

- No food or drink in the auditorium.
- No laptops or smart devices are allowed once the lecture has begun.
- Discussion is encouraged. Please raise your hand to ask questions or make comments.

STANDARD UTD POLICIES:

<http://www.utdallas.edu/deanofstudents/conductguidelines.html>

<http://provost.utdallas.edu/>

<http://www.charissaterranova.com/syllabi/utd-policies.htm>

SCHEDULE:

VIRTUAL REALITY: FROM PREHISTORIC CAVES TO ANCIENT ROME

Tuesday January 9

Introduction and Lecture: *Techne* and Art; Virtual Reality and Prehistoric Cave Drawings

Reading Assignment

Chapter 1, "Introduction," Oliver Grau, *Virtual Art: From Illusion to Immersion*, 2-22.

"Virtual Realities Then and Now: The Caves of Lascaux," <http://www.transparencynow.com/lascaux.htm>.

Thursday January 11

Film Screening: *Cave of Forgotten Dreams* (2010) Directed by Werner Herzog

Tuesday January 16

Quiz #1 and Discussion

Thursday January 18

Lecture: Roman Urbanism, Architecture, and Infrastructure

Reading Assignment:

J. N. Hopkins, "The Cloaca Maxima and the Monumental Manipulation of Water in Archaic Rome," in K. Rinne, ed., *The Waters of Rome* (Charlottesville, VA:

University of Virginia Press, 2007) 1-15. <http://www3.iath.virginia.edu/waters/Journal4Hopkins.pdf>

Tuesday January 23

Lecture: Roman Interiors and Paintings

Reading Assignment:

Chapter 2, "Historic Spaces of Illusion," Oliver Grau, *Virtual Art: From Illusion to Immersion*, 24-89.

Thursday January 25

Quiz #2 and Discussion

VIRTUAL REALITY AND SACRED SPACES

Tuesday January 30

Lecture: Hagia Sophia: Symbolisms and Strata of Structures and Time

Reading Assignment:

Emma Wegner. "Hagia Sophia, 532–37." In *Heilbrunn Timeline of Art History*. New York: The Metropolitan Museum of Art, 2000–.

http://www.metmuseum.org/toah/hd/haso/hd_haso.htm (October 2004)

Rowland J Mainstone. "Questioning Hagia Sophia." In *Hagia Sophia: From the Age of Justinian to the Present*. Princeton, NJ: Princeton University Press, 1988. 158-176.

Thursday February 1

Quiz #3 and Discussion

Tuesday February 6

Lecture: Mosque of Cordoba: Spoilage and Repetition of Forms

Reading Assignment:

Tracy Hildebrand. "Architectural Origins of the Mosque of Cordoba," <http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1174&context=nebanthro>

Thursday February 8

Quiz #4 and Discussion

Tuesday February 13

Film Screening: *Cathedral* (2012) PBS Documentary narrated by David Macaulay

Reading Assignment:

Jean Sorabella. "Pilgrimage in Medieval Europe." In *Heilbrunn Timeline of Art History*. New York: The Metropolitan Museum of Art, 2000–.

http://www.metmuseum.org/toah/hd/pilg/hd_pilg.htm (April 2011)

Thursday February 15

Quiz #5 and Discussion

Distribution of Mid-Term Exam Review

TECHNOLOGICAL EXTENSIONS AND PROSTHETICS OF VISION

Tuesday February 20

Lecture: Lenses and Prosthetic Vision in Early Modernity: Italy and England

Reading Assignment:

“The Telescope,” The Galileo Project, Rice University, <http://galileo.rice.edu/sci/instruments/telescope.html>

Matthew F. Walker, “The limits of collaboration: Robert Hooke, Christopher Wren and the designing of the monument to the great fire of London,” *The Royal Society Journal of the History of Science* (February 2011).

Thursday February 22

Quiz #6 and Discussion

Tuesday February 27

Mid-Term Exam Review

Thursday March 1

Mid-Term Exam

Tuesday March 6

Lecture: Painting with Grids – From Vermeer to Photorealism

Reading Assignment:

Gerhard Gutruf and Hellmuth Stachel, “The Hidden Geometry in Vermeer’s ‘The Art of Painting’,” <http://www.heldermann-verlag.de/jgg/jgg14/j14h2gutr.pdf>

“Vermeer and the Camera Obscura,” http://www.essentialvermeer.com/camera_obscura/co_one.html#.WFBlqJIuqVs

Thursday March 8

Quiz #7 and Discussion

Tuesday March 13 / Thursday March 15

Spring Break No Class

ARCHITECTURE, MOBILITY, INFRASTRUCTURE, AND VIRTUAL REALITY

Tuesday March 20

Lecture: Rolling Through the Landscape and Spatial Surrounds: Trains and Panoramas

Reading Assignment:

Chapter 3, "The Panoramas of the Battle of Sedan: Obedience through Presence," Oliver Grau, *Virtual Art: From Illusion to Immersion*, 90-139.

Thursday March 22

Quiz #8 and Discussion

Tuesday March 27

Lecture: Mobile Prosthetics: Automobiles and Highways

Reading Assignment:

Paul Mason Fotsch, "The Building of a Superhighway Future at the New York World's Fair," *Cultural Critique*, no. 48 (Spring 2001) 65-97.

Thursday March 29

Quiz #9 and Discussion

Tuesday April 3

Lecture: Virtual Realities in Painting and Photography

Chapter 4, "Intermedia Stages of Virtual Reality in the Twentieth Century: Art as Inspiration for Evolving Media," Oliver Grau, *Virtual Art: From Illusion to Immersion*, 140-191.

Thursday April 5

Lecture: Virtual Realities Constructed, Edited, and Made: Film and Montage

David Bordwell, "The Idea of Montage in Soviet Art and Film," *Cinema Journal*, Vol. 11, No.2 (Spring, 1972) 9-17.

Tuesday April 10

Film Screening *Man with a Movie Camera* (1929) Directed by Dziga Vertov

Thursday April 12

Quiz #10 and Discussion

Distribution of Final Exam Review

VIRTUAL REALITY IN THE DIGITAL AGE

Tuesday April 17

Lecture: The Digital Image in Art

Reading Assignment:

Chapter 5, “Virtual Art – Digital! The Natural Interface,” Oliver Grau, *Virtual Art: From Illusion to Immersion*, 192-211.

Chapter 6, “Spaces of Knowledge,” Oliver Grau, *Virtual Art: From Illusion to Immersion*, 212-269.

Thursday April 19

Quiz #11 and Discussion

Tuesday April 24

Lecture: Telecommunications and Biology in Art

Reading Assignment:

Chapter 7, “Telepresence: Art and History of An Idea,” Oliver Grau, *Virtual Art: From Illusion to Immersion*, 270-295.

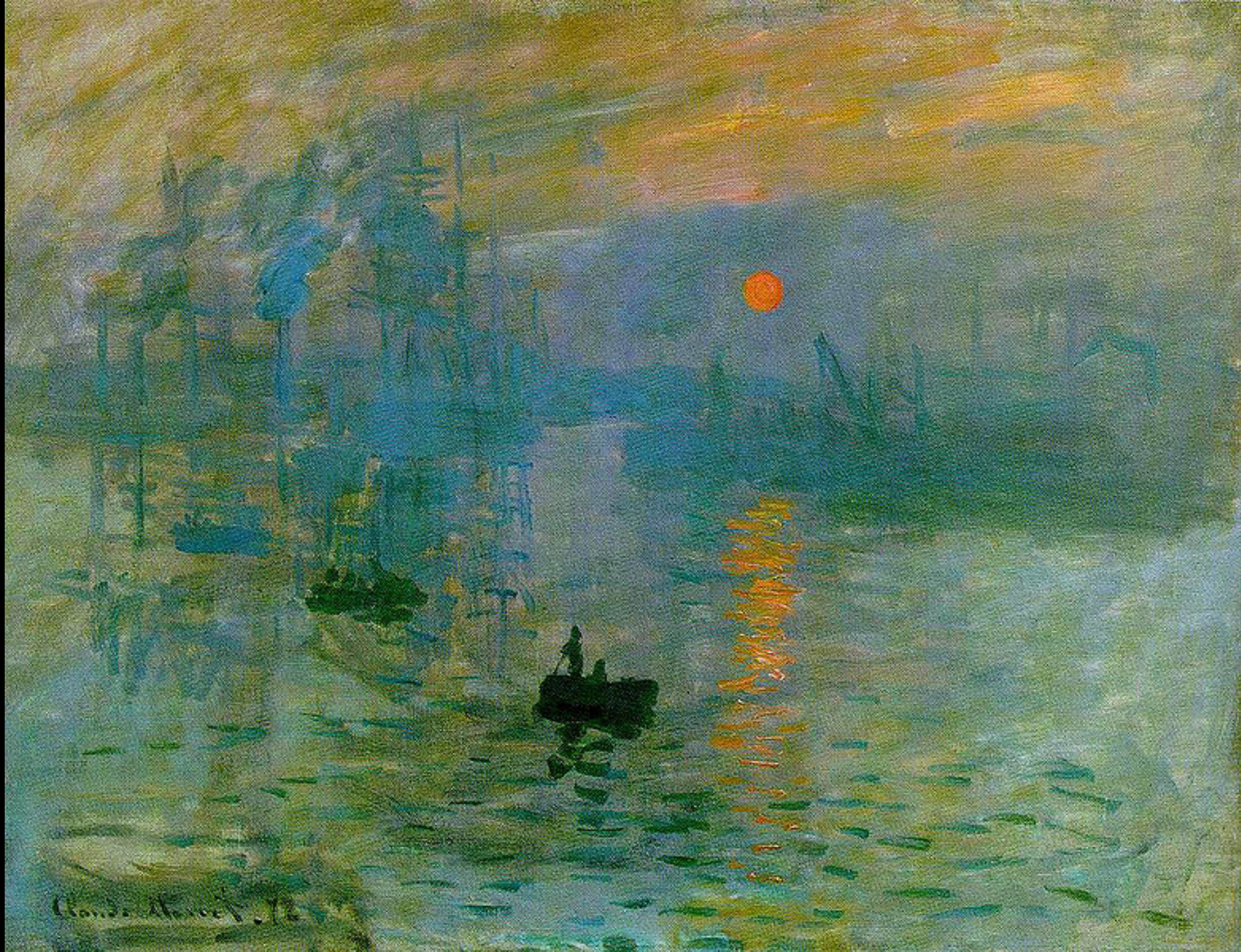
Chapter 8, “Evolution,” Oliver Grau, *Virtual Art: From Illusion to Immersion*, 296-337.

Thursday April 26

Quiz #12, Discussion, and Final Exam Review

FINAL EXAM TBA

What is the relationship between art and technology?



Claude Monet, Impressionist Sunrise, 1872
1' 7" x 2' 1"

Painted "*en plein air*"



Claude Monet, La Gare Saint-Lazare, 1877



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No. 33	By doz. \$1 50	No. 34	By doz. \$2 00
44	1 50	38	2 00
36	1 75	38	3 00

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 FOR FRENCH PAINTING

NO. 2—ROUND BRISTLE, TIN BRISTLES			
3 1/2 in wide	By doz. \$1 50	1 1/2 in wide	By doz. \$2 00
	1 50	1 1/2	2 75
	1 75	1 1/2	3 00

F. W. DEYDE & CO'S BRISTLE BRUSHES—LARGE.
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NO. 3			
No. 1	By doz. \$1 50	No. 4	By doz. \$2 00
2	1 75	2	3 00
3	2 00	2	4 00

The tin tube was more resilient than its predecessor (the pig bladder), enabling painters to leave their studios. (Chrysler Museum of Art). The collapsible paint tube was invented in 1841 by portrait painter John Goffe Rand, superseding pig bladders and glass syringes as the primary tool of paint transport. By 1842, the tube was being sold exclusively by the firm of Winsor & Newton as "Rand's Patent Collapsible Tube". Other technical advances include the portable easel and the portable stool, (near right). The change in brush ferrules from quill, thread, or wire-bound brushes to metal ferrules (far right) also made painting more mobile. The metal made paint brushes sturdier and less subject to damage. Probably introduced in the 18th century, the metal ferrule gained popularity in the 19th century.

The HISTORY of the ARTISTS' COLOUR TUBE.



Bladders in use
prior to 1840
Perforated & closed
with Tack.



WILLM WINSOR'S
First Patent Tube
1840
PATENT NO 8394.



Early makes
OF
Metal Tubes
ABOUT 1841.



A B C

Specimens of Tubes manufactured by
MESSRS WINSOR & NEWTON, LTD
UP TO PRESENT TIME.

- A. PATENT SPRING CLIP 1897. NO 7402.
B. " SLOW DRYING CLIP 1905. " 10522.
C. " TUBE CAP 1904. " 28031.
" " " 1905. " 11435.

1ST August 1911.



Marcel Duchamp, Bicycle Wheel, 1913



Tinguely at Iris Clert Galerie, 1959

Jean Tinguely, Méta-Matic #17, 1959



Study for an End of the World,
No. 2 , 1962

Tinguely in Nevada desert
outside of Las Vegas, 1962







Surrealism, Technology, Biology

Above: Yves Tanguy, Heredity of Acquired Characteristics, 1936

Top Left: Jean Study for an End of the World, No. 2 , 1962

Bottom Left: Yves Tanguy, 'Azure Day' 1937





Jean Tinguely in Nevada Desert Trying Out His Self-Destruction Machine Sculpture



Etymology

Techne (Greek root of technology)

- 1 activities, skills of craftsman
- 2 arts of mind, fine arts

“the bringing-forth of the true into the beautiful”

Our word "technology" comes from the Greek *technikon*, which is related to the word *techne*. In the sense of "technique," *techne* refers to *both* manufacturing (the techniques of shoemakers and printers, for example) and to the arts (the techniques of poets and graphic designers, for example). *Techne* is part of *poeisis*, or poetry and/or crafting.

The most elemental process of modern times is the conquest of the world as images.

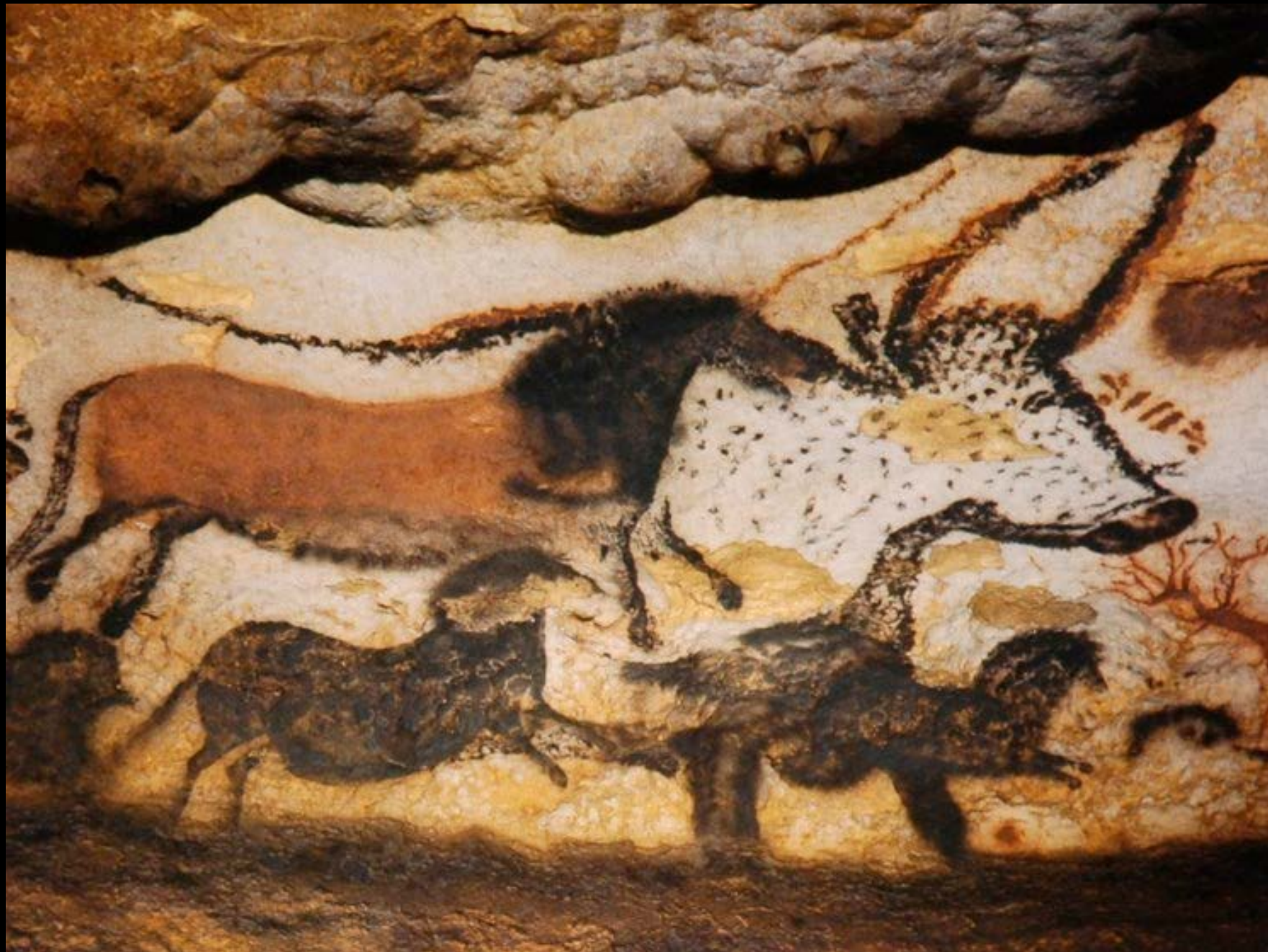
Martin Heidegger, quoted by Oliver Grau in
Virtual Art: From Illusion to Immersion

Thus what is decisive in techne does not lie at all in making and manipulating nor in the using of means, but rather in the aforementioned revealing. It is as revealing, and not as manufacturing, that techne is a bringing-forth. (13)

Martin Heidegger, "The Question Concerning
Technology" (1954)

technology = a challenging, a bringing-forth

What is the relationship between art and design?



Cave Paintings, Lascaux Cave,
Lascaux France, c. 17,000 BCE

Parietal Art: archeological term
for cave paintings; “parietal”
means “of or relating to the
walls of a part or cavity”

virtual reality

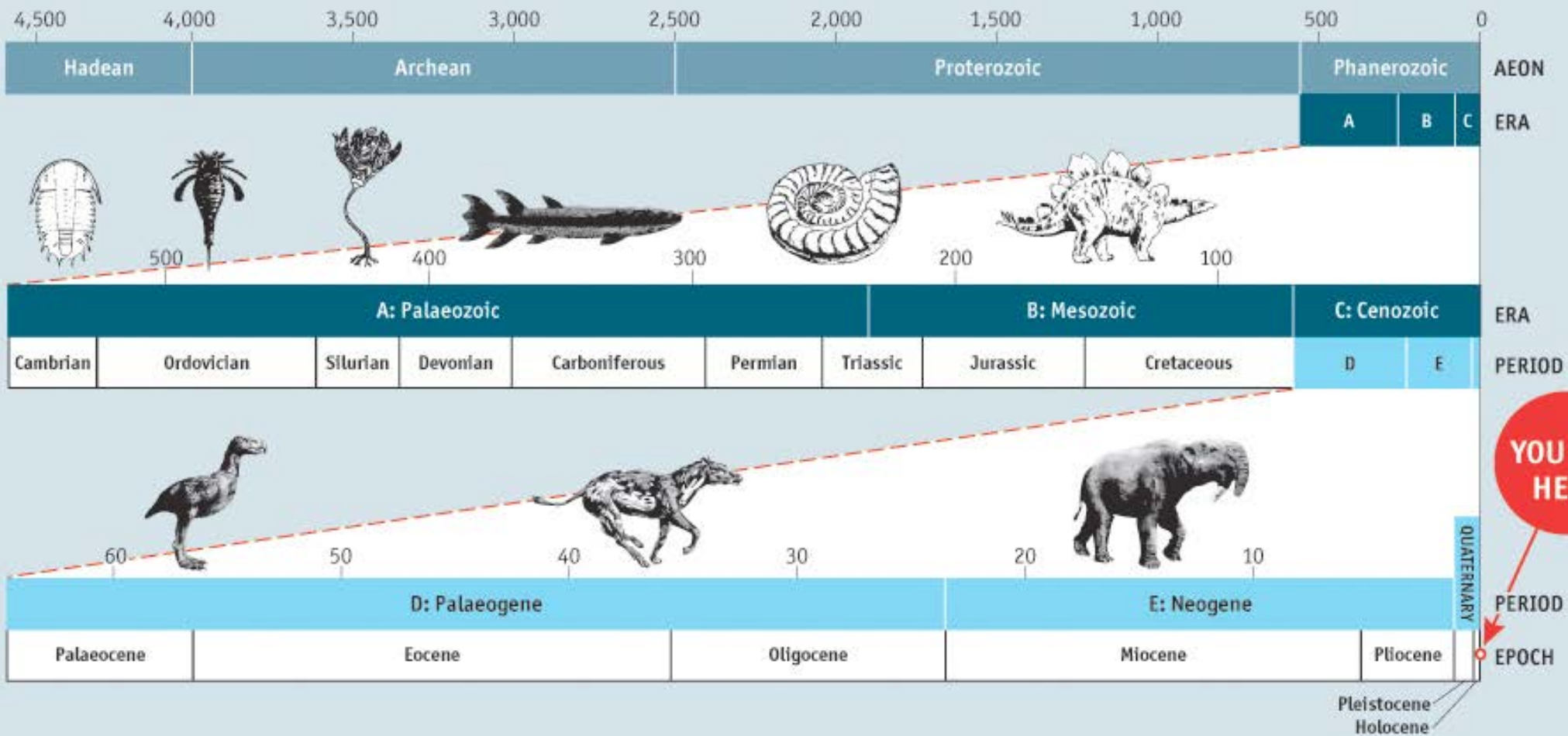
immersion

● Major Paleolithic caves in France and Spain

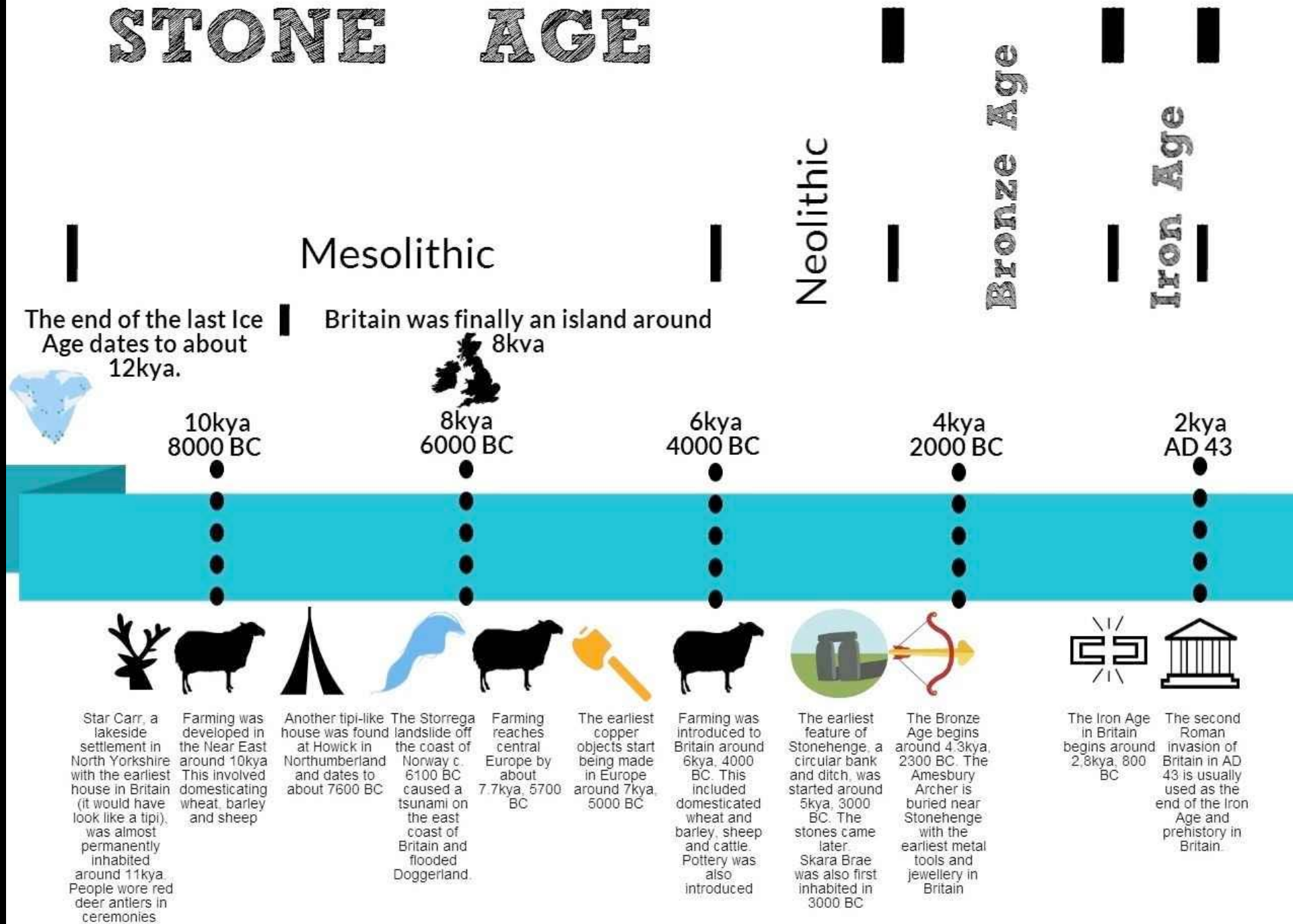


A geological timeline of the Earth

MILLIONS OF YEARS AGO

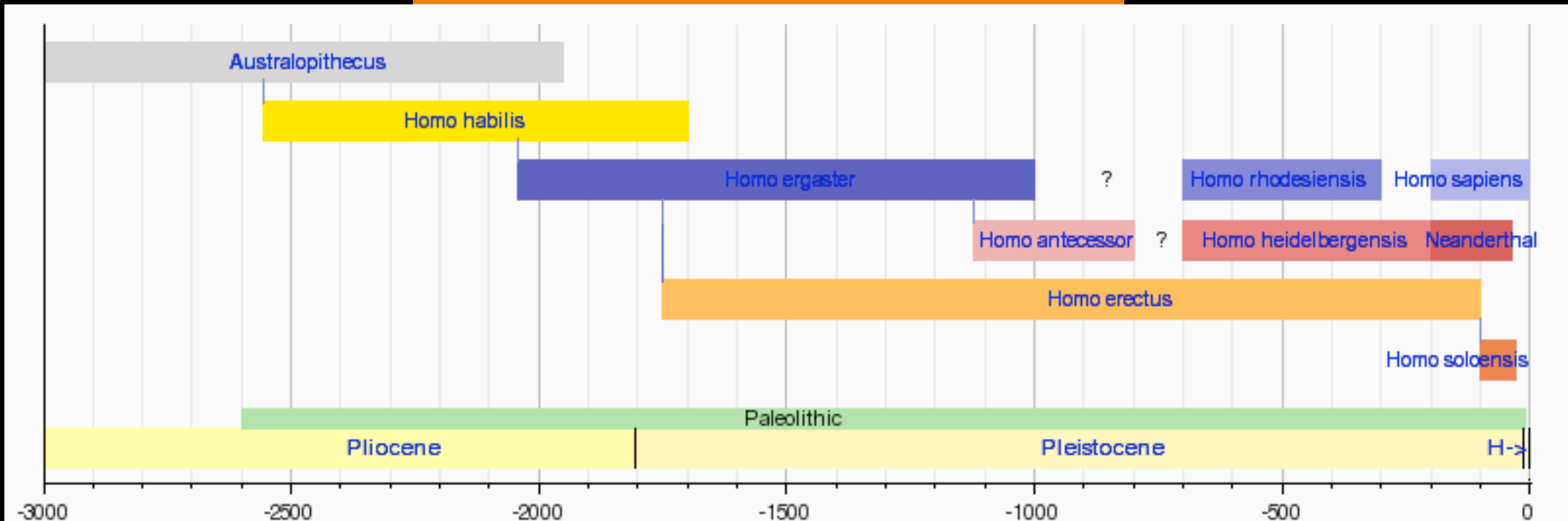


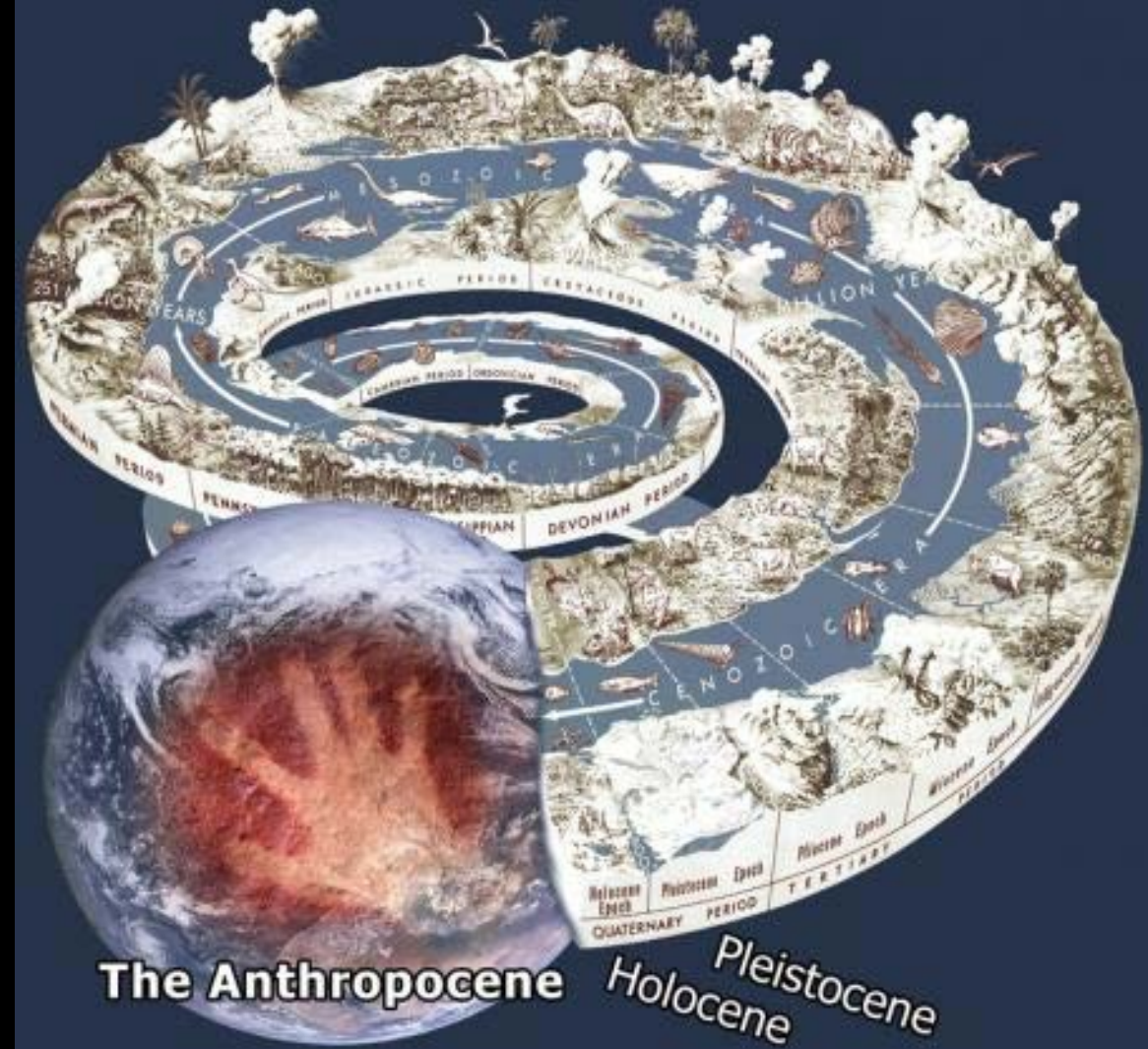
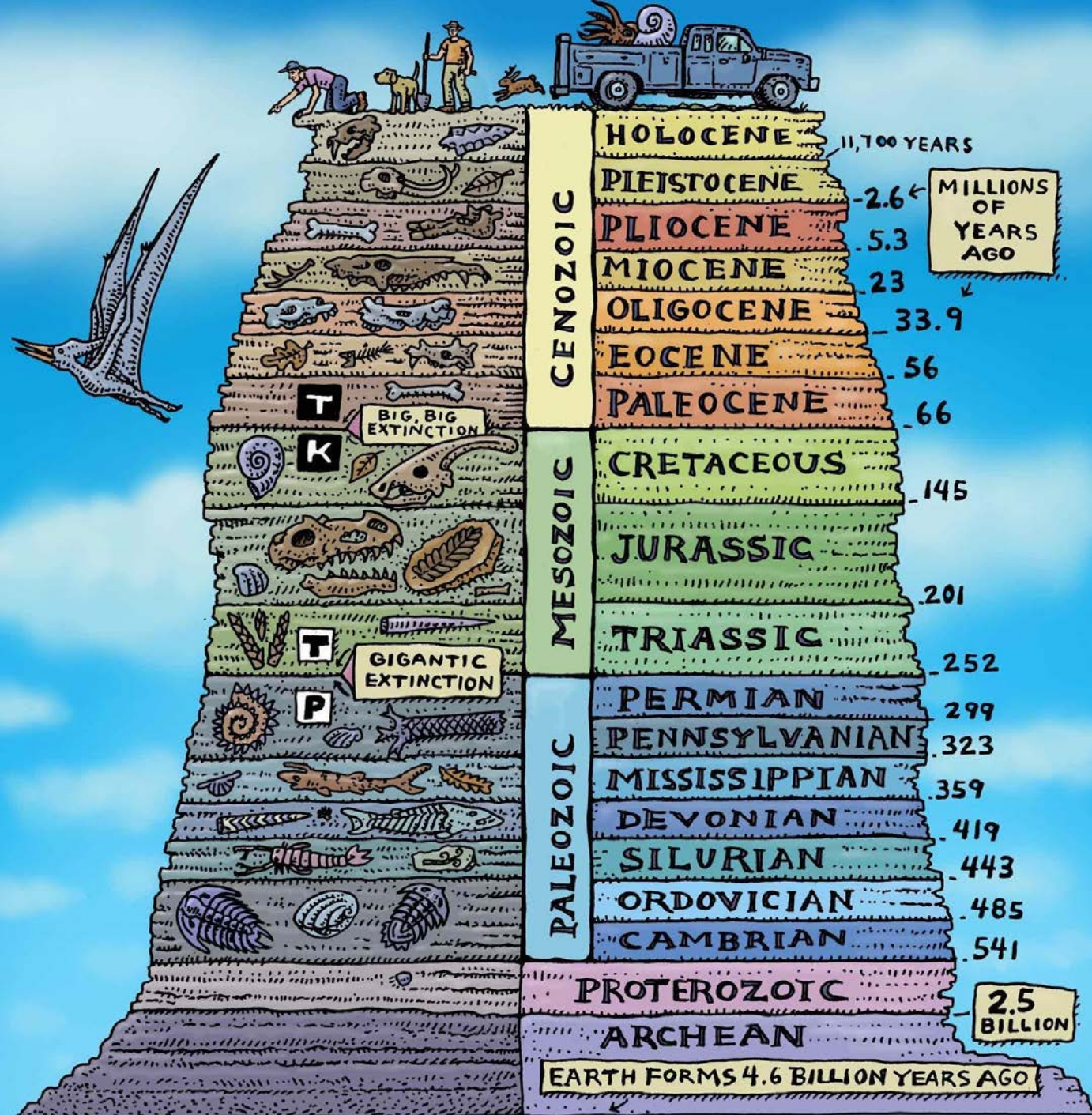
STONE AGE



The Paleolithic Era

- The Paleolithic Era (Old Stone Age) began when hominids first made tools.
- These tools were used to make their lives easier.





The Anthropocene Pleistocene Holocene

Anthropocene: relating to or denoting the current geological age, viewed as the period during which human activity has been the dominant influence on climate and the environment.



Left: Entrance to Lascaux I
Above: The entrance to Lascaux II, which mimics the entrance to Lascaux.





Hall of Bulls

IMMERSION

IMMERSIVE
SPACE

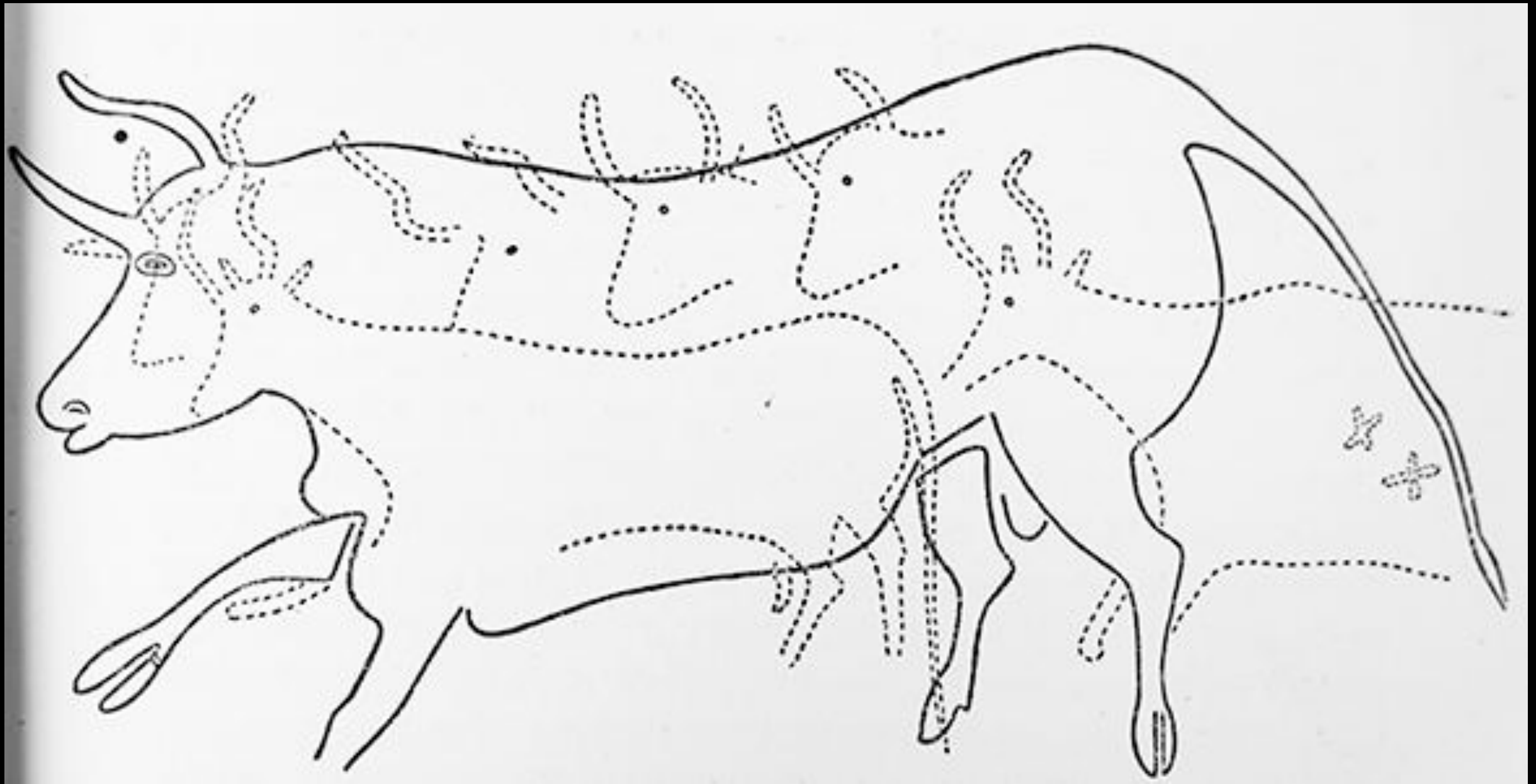
IMMERSIVE
EXPERIENCE



The Unicorn, in the Hall of the Bulls; left, from afar, right close up. -- Perhaps referencing a rhinoceros



The Great Black Bull



Superimposed paintings on the Great Black Bull.

PALIMPSEST



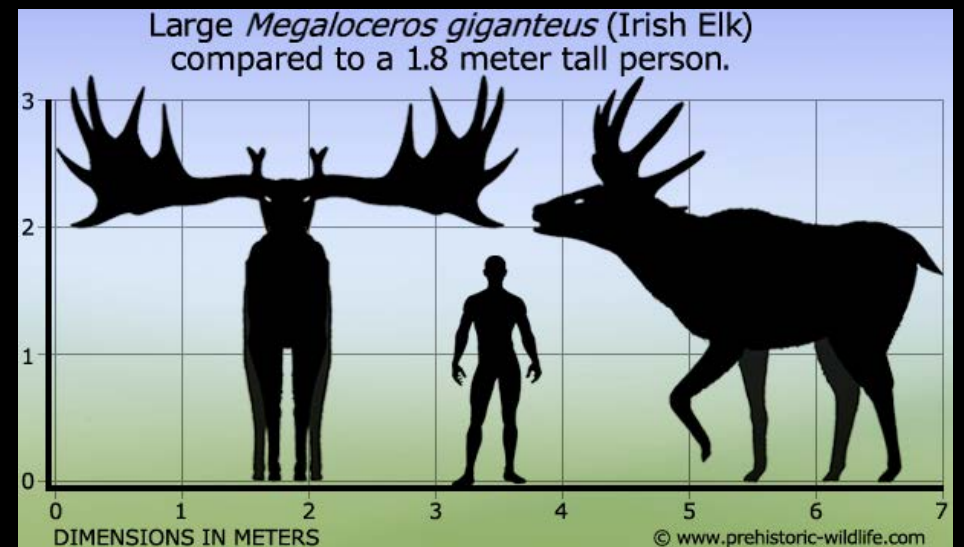
The right wall of the Axial Gallery



View into the axial gallery



Megaloceros in Axial Gallery





The Passageway, or the Passage, connects the Hall of the Bulls to the Nave and the Apse. It has a high density of images which are often difficult to interpret. There are several hundred engraved figures, and some painted ones, 385 in all. The images which could be identified included horses, bison, ibex, aurochs, deer, and various signs including a hook, a cross, and a quadrangular sign.

Photo and text:

<http://www.lascaux.culture.fr/>



This is one of the most studied and argued about paintings in Lascaux. It is in what is known as the Well, or the Shaft, and is reached by climbing down a ladder from the Apse.

The main scene includes a disembowelled bison, a man with a bird's head who appears to have been felled by the bison, a spear, and a bird on a pole.

Was the man a shaman with a bird as totem? Did the painter believe that dead people became birds? We shall never know.

Photo: Don Hitchcock 2008
Source: Display at Lascaux Révélée





Several views of an oil lamp (a deer fat lamp),
found in the sediments in the floor of the Shaft at
Lascaux cave



techne





Cave-painting pedagogy

<http://www.heritagedaily.com/2017/01/why-we-built-an-artificial-cave-to-teach-our-students-about-ancient-art/113835>

Cave painting in India

<http://www.independent.co.uk/arts-entertainment/art/news/40000-year-old-cave-paintings-include-oldest-hand-stencil-known-to-science-9783840.html>