
**Kindling
the Flame**

**Launching the
anthropology of
cremation summer
school**

What do these celebrities have in common?



Robin Williams



David Bowie



Leslie Cheung



Alfred Hitchcock



Bruce Lee



Amy Winehouse



John Lennon



Karl Lagerfeld



Prince

*They all chose
to be cremated*

But, what's a cremation?

Let's try to define it together!



Definition

'Cremation' has two meanings:

1 – the act of burning the dead body
(in a funerary context)

2 – the mortuary custom of burning
the dead body (including the funeral,
rituals, practices, etc.)



Wood stacked for funeral pyres prepared in the carpark of Ghazipur crematorium, Delhi.

Definition

What about the term ‘incineration’?

1 – incineration primarily serves waste management purposes

2 – Latin etymology:

- > *incinerāre*: related to *cinis* (“ashes”), meaning “burn to ashes” – *NB: not always true in funerary contexts*
- > *cremāre*: from *kerh₃- (“heat, fire”), meaning “consume or destroy by fire”

3 – cremation is therefore the more appropriate term for the disposal of the deceased



<https://zerowaste.europa.eu/2020/09/no-time-to-waste-incineration-and-waste-to-energy/>

Waste management practice involving fire



<https://www.istockphoto.com/cs/folk/waste-incineration>

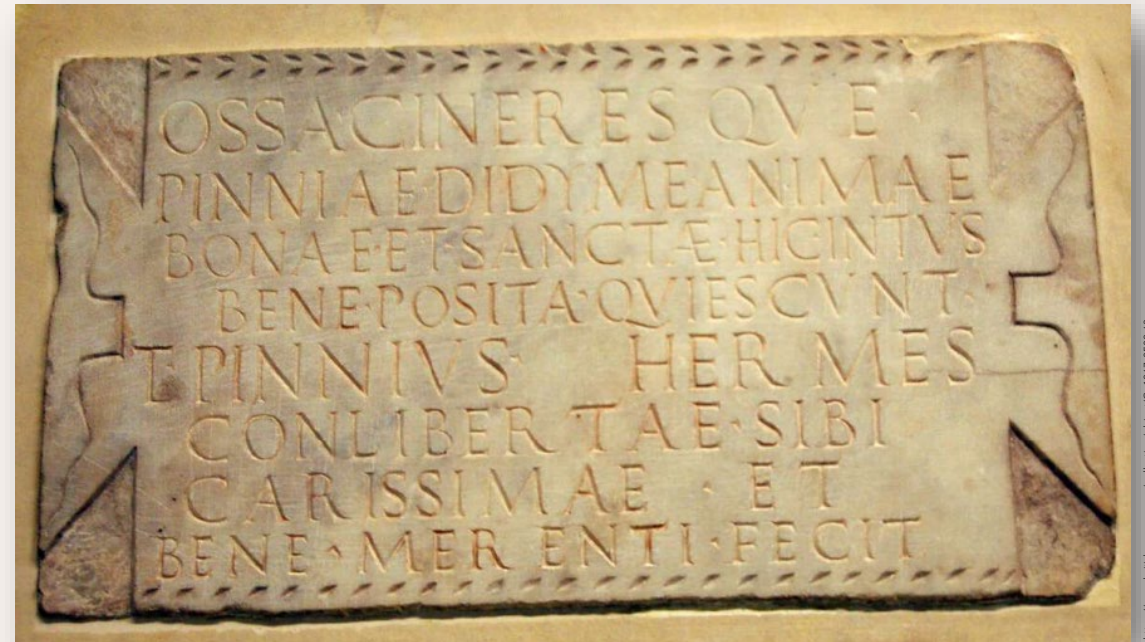
Because nothing is simple...

According to David Noy:

The phrase “*ossa et cineres*” is often used by the Romans to describe the residual elements of a cremation, encompassing both bones and ashes

The term “*cineres*” can also stand alone, and when used in that manner, it implies the presence of both bones and ashes

<https://www.jstor.org/stable/826933>



Marble epitaph plaque from a niche in a columbarium on the Appian Way outside Rome (British museum)

Inscription translation: The bones and ashes of Pinnia Didyma, of a good and saintly spirit, rest quietly in here, well placed. Titus Pinnius Hermes made this for his dearest and well-deserving fellow freedwoman.

Today's undertakers



International Cremation Federation

NGO in status (Roster) with the Economic and Social Council of the United Nations

It is preferable and more respectful to say that a body is being cremated rather than incinerated



The Cremation Society

Rooted in history: committed to the future

CANA
MEMBER
Cremation Association of North America

The logo for the Canadian Cremation Centre features a stylized red maple leaf with a curved stem. Below the leaf, the text 'Canadian Cremation Centre' is written in a serif font.

Canadian
Cremation Centre



FBCA

Federation of Burial
& Cremation Authorities

But also...

Archaeologists
Bioarchaeologists
Biological anthropologists
Forensic anthropologists
Social anthropologists
Etc.
They all agree!



Indiana Jones and the Temple of Doom (1984)



The victim is lowered into lava which burns him to death

Does body turn to ash when cremated?

Just to be clear, there are no ashes obtained as a result of the cremation process. What is really retrieved and returned to you is the person's skeleton

In modern crematorium, the bones are then reduced in size to a granular consistency. The pulverized bones yield a coarse, grayish material with a texture resembling that of fine gravel

The remains of a human that have undergone the process of cremation are commonly referred to as "cremated remains" or "cremains"



Cinerary urn with cremated remains

Are the terms "cremated bones" and "burnt bones" interchangeable?

While both terms refer to bones that have been subjected to the intense heat, "cremated bones" derived primarily from funerary contexts

In contrast, "burnt bones" is a more general term that does not necessarily imply any specific association with funerary practices. For example, burnt bones from forensic contexts



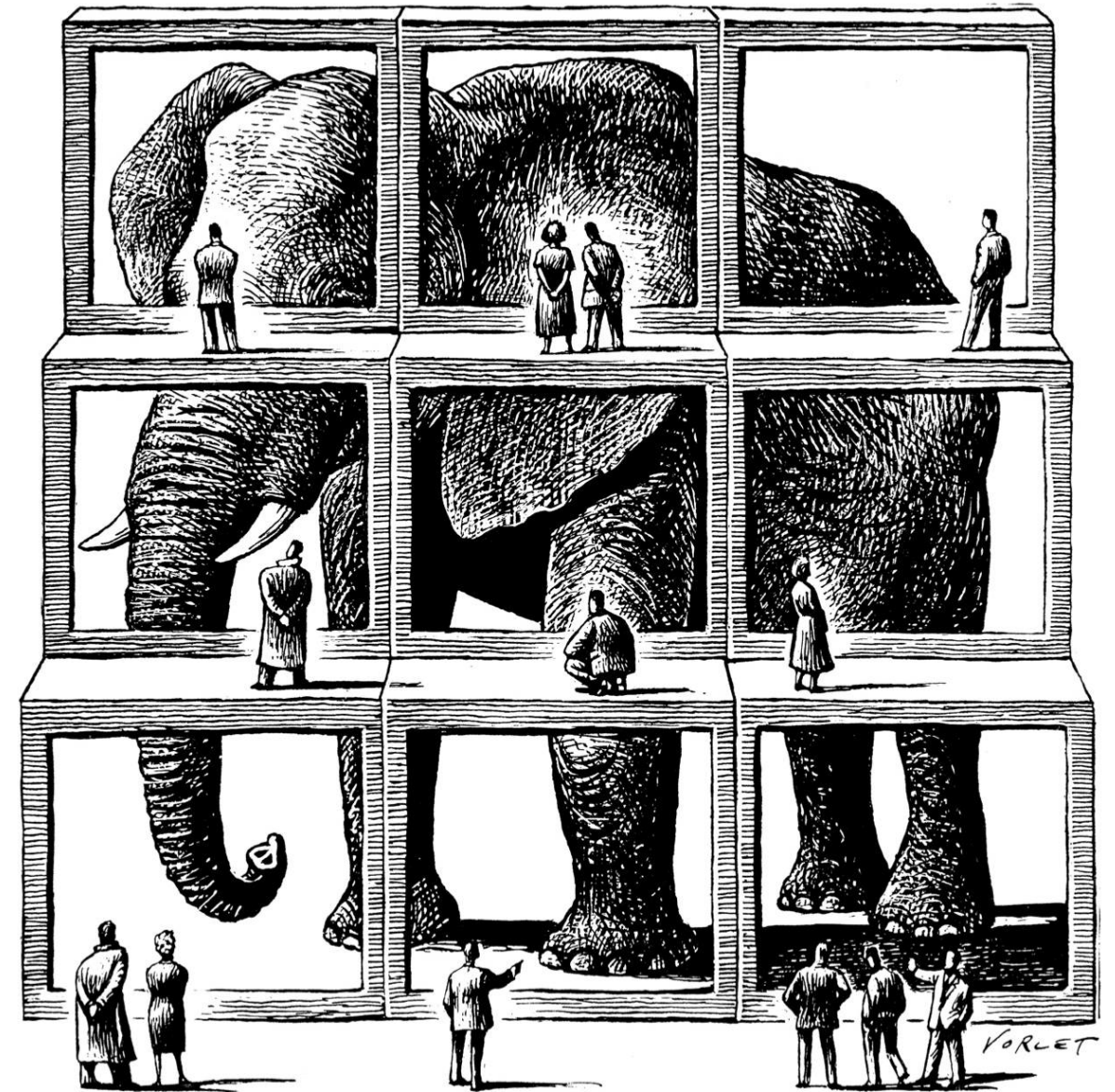
Plane crash in which victims can be burned beyond recognition

Context does matter

All burnt bones look alike

Understanding the details of how, where, and when the bones (and consequently the body) were cremated holds significant importance

Social context
Historical context
Cultural context
Economic context
Etc.



The big picture

The cremation context

Let's go back to your list of keywords
3 key components

Body

People

Fire



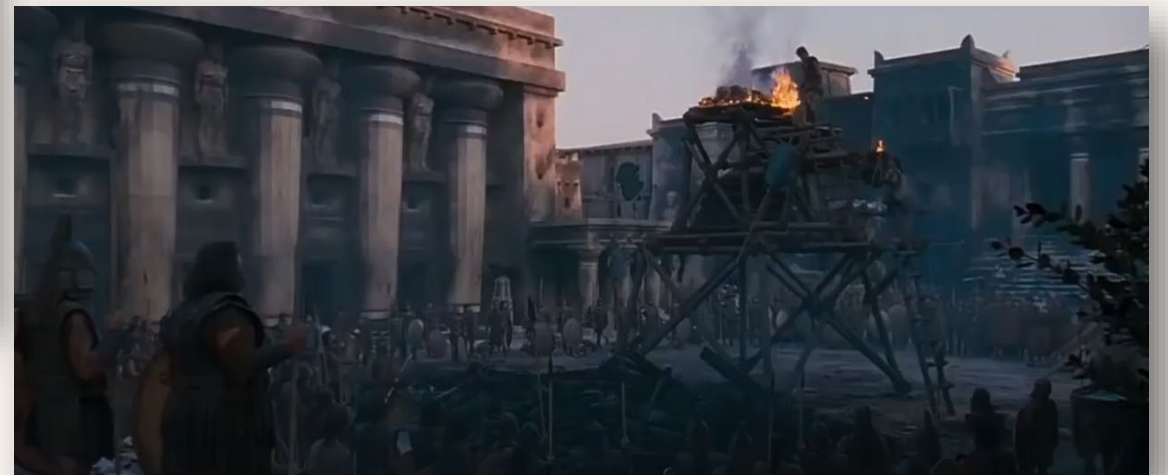
Cremations in the 7th-8th arts

Body

Bronze Age (c. 1200 CE)

The funeral of Achilles in *Troy* (2004)

People



Fire

Achilles was invulnerable in all of his body except for one heel, because when his mother Thetis dipped him in the river Styx as an infant, she held him by one of his heels. The death of Achilles is not presented in the *Iliad* but is known from other sources

Cremations in the 7th-8th arts

Roman period (44 BC)

The funeral of Niobe in *Rome* (S02E01 - 2007)



Interactions with human remains



People



Body



Fire

Vorenus says goodbye to his wife, Niobe, while Rome says goodbye to Caesar

Cremations in the 7th-8th arts

Body

Medieval period (c. 1000 AD)

The funeral of Einar in *The Vikings* (1958)

People



The Vikings tracks the lives of two Viking half brothers, Einar (played by Kirk Douglas) and Eric (Tony Curtis). It was noted for its efforts to be an authentic portrayal of Viking life, especially the cremation scene

Fire

Cremations in the 7th-8th arts

Pre-WWI (c. 1900's)

Gypsy funerals in *Peaky Blinders* (S04E02 - 2017)



People

The scene depicts a cremation practiced by a minority group in the early 20th century



Fire

Cremations in the 7th-8th arts

Post-WWI (c. 1960's)

The Cremator (Czech: *Spalovač mrtvol*) is a 1969 Czechoslovak dark comedy horror film directed by Juraj Herz, featuring Rudolf Hrušínský, one of the most popular Czech actors

The Cremator is often considered to be one of the best movies ever made in Czechoslovakia. It has also gathered a prominent cult following

The Cremator is available on (Czech) Netflix



Cremations in the 7th-8th arts

Medieval Fantasy

The funerals of the Night's Watch in *Game of Thrones*
(S08-E04)



People

Mass cremation conducted following a war event

Body



Fire

Cremations in the 7th-8th arts

Body

Science Fiction

Qui Gon's Funeral in *Star Wars: The Phantom Menace* (1999)



People

The funeral of Qui-Gon Jinn took place on the planet Naboo. A traditional Jedi funeral was held in his honor, including a cremation



Fire

Cremations in the 9th art

Video game (as movie scene)

The Funeral Pyre Of April Ryan: *Dreamfall Chapters* (2014)



People

The funeral of April Ryan is conducted on a boat over water, evoking (supposedly) Viking funeral traditions



Body



Fire

Cremations in the 9th art

Video game (partially playable)

Vesemir's Funeral: *The Witcher 3* (2016)



People



Body



Fire

This quest begins with the funeral of Vesemir. One of the few video games that allows you to control a character during a cremation

Cremations in the 9th art

Video games (fully playable)



Both differ from the previous examples (no people or no fire).



Simulated cremation!

Creepy “4D death simulator” allows people to experience being cremated (Shanghai, China)



The oven itself, however, isn't fired; it merely raises the temperature to about 40 degrees using heat fans.

What can we learn from these scenes?

Regardless of whether it is in films, literature, video games, or historical sources

Cremation is an intricate process that entails a multitude of ritual sequences, characterized by strict codes and standards, occasionally transcending time and geographical boundaries

Nonetheless, there exists a certain level of freedom in the execution of these rituals. Every culture is permeated with variations, encompassing diverse attitudes towards the deceased (signs of respect or affection, family traditions, etc.)



Royal cremation ceremony in Thailand in 2017

Cremation genesis – Australia



Published: 20 February 2003

New ages for human occupation and climatic change at Lake Mungo, Australia

[James M. Bowler](#) , [Harvey Johnston](#), [Jon M. Olley](#), [John R. Prescott](#), [Richard G. Roberts](#), [Wilfred Shawcross](#) & [Nigel A. Spooner](#)

Nature **421**, 837–840 (2003) | [Cite this article](#)

5358 Accesses | 465 Citations | 51 Altmetric | [Metrics](#)

<https://doi.org/10.1038/nature01383>

Archaeological records indicate that cremation has a history dating back at least 44000 years, exemplified by the discovery of the Mungo Lady at Mungo Lake, Australia

World Heritage Mungo National Park



Archaeologist John Mulvaney (right) at Lake Mungo, 1974

Cremation genesis – America



The Analysis of Burned Human Remains (Second Edition)

2015, Pages 295-306

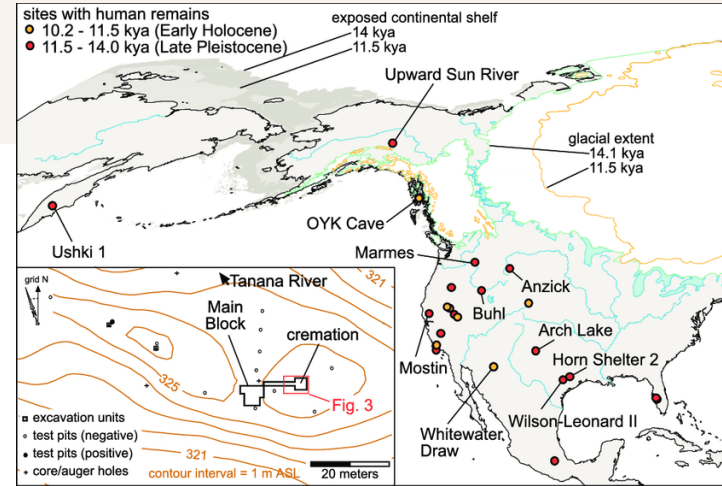


Chapter 16 - An 11,500-Year-Old Human Cremation from Eastern Beringia (Central Alaska)

Joel D. Irish Ph.D.^{1,2}, Ben A. Potter Ph.D.², Joshua D. Reuther Ph.D.³

<https://doi.org/10.1016/B978-0-12-800451-7.00016-4>

The cremated human remains from the Upward Sun River (USR) site, in Alaska are the earliest known for the entire Arctic/Subarctic of North America and date from 9500 BC



Burying scene at Upward Sun River site

Cremation genesis – Asia

PLOS ONE

OPEN ACCESS PEER-REVIEWED

RESEARCH ARTICLE

Emergence of corpse cremation during the Pre-Pottery Neolithic of the Southern Levant: A multidisciplinary study of a pyre-pit burial

Fanny Bocquentin, Marie Anton, Francesco Berna, Arlene Rosen, Hamoudi Khalaily, Harris Greenberg, Thomas C. Hart, Omri Lernau, Liora Kolska Horwitz

Published: August 12, 2020 • <https://doi.org/10.1371/journal.pone.0235386>

<https://doi.org/10.1371/journal.pone.0235386>



The oldest Neolithic cremation tomb in Eastern Asia, found at Laohudun, China, dates back to 2800–2500 BC

The oldest known cremation in Western Asia dates to 7000 BC at the Neolithic site of Beisamoun (Israel).

International Journal of Osteoarchaeology

RESEARCH ARTICLE | Full Access

Determining the earliest directly dated cremation tombs in Neolithic China via multidisciplinary approaches: A case study at Laohudun site

Yuqian Yan, Wei Ge, Yile Wang, Changqing Xu, Yuanfei Wu, Tao Cui

First published: 23 June 2022 | <https://doi.org/10.1002/oa.3139> | Citations: 1

<https://doi.org/10.1002/oa.3139>

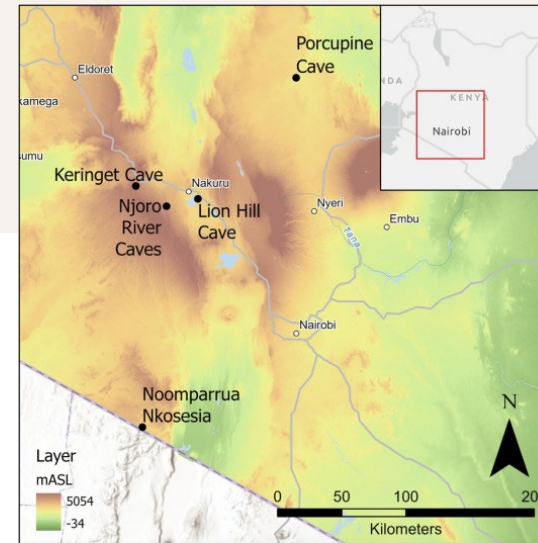


Cremation genesis – Africa



<https://doi.org/10.1016/j.jaa.2023.101523>

The oldest cremation from Africa is from the Njoro River Cave and dates from 1500-1100 BC



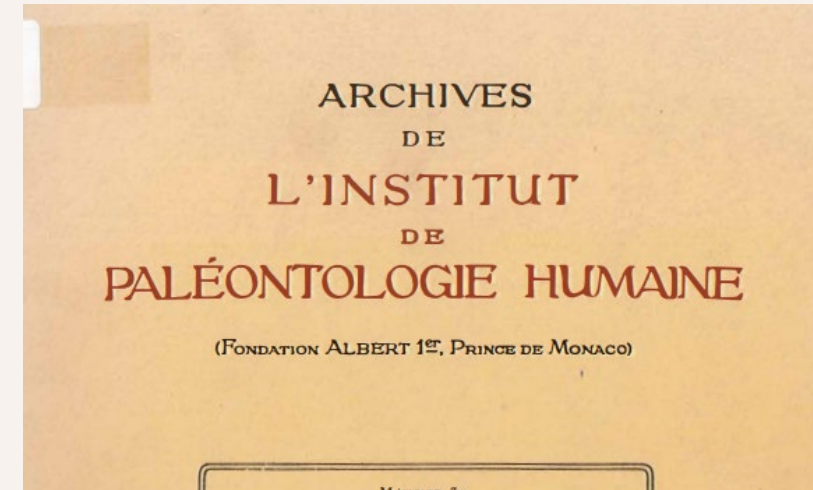
Archaeological Sites Njoro River Cave
Magical Nakuru.

Cremation genesis – Europe

The oldest European cremation is thought to have been found in France, at the Rochereil site, and may date back to 14,000 BC. Its dating is uncertain, however, as no cremation for the Late Palaeolithic is otherwise known; it is probably Mesolithic in age (Azilian)

In Europe, cremation was practiced during the early and late Mesolithic periods (8000-4000 BC) across Scandinavia, the Netherlands, Belgium, northern France, and Ireland

However, there is an undeniable necessity to precisely establish the dating of these cremated remains in order to gain a more profound insight into their chronological distribution across Europe



<https://doi.org/10.24072/pcjournal.185>

A bone story

Burnt bones are the most tangible by-product of cremation

They come in two forms: charred or burnt.

Cremated remains



Bones that have experienced various stages of heat-induced transformations, leading to alterations in their structure, the depletion of water and organic components, and different coloration (**black vs white**).

The burning

However, our knowledge about the specific methods employed for cremating bodies in the past remains quite limited

The **ephemerality** of the moment, the **taphonomic vulnerability** of the pyre locations, the **choices** made by the funerary ritual attendants, and the unpredictable **contingencies** inherent to the burning process (e.g. pyre collapse) are all variables that make each cremation a unique event predestined to vanish.

Why is it so rare and random to find pyre sites?

Two cremation experiments to understand the characteristics of pyre sites and their investigational possibilities

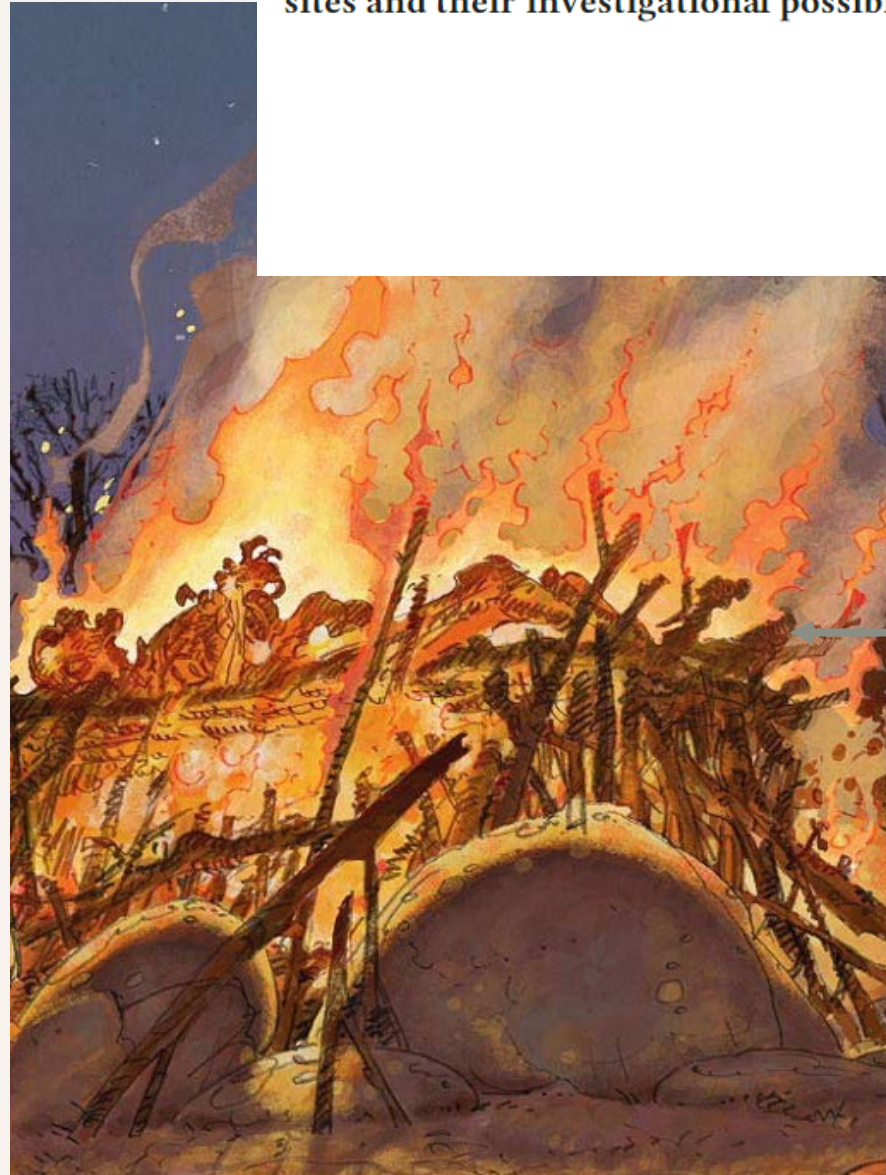
2018

KRISTÓF FÜLÖP

Institute of Archaeological Sciences

Eötvös Loránd University

fulopkr14@gmail.com



Funeral pyre

The Julius Caesar's pyre

Probably one of the most famous pyres ever

Following the assassination of Julius Caesar, it is said that the crowd desired to burn his body in the Forum.



Temple and altar
of Julius Caesar



The tall funeral pyre of Julius Caesar. Engraving drawn by A Houbraken & engraved by M Pool (19th c.).



The fervor of the people led to the swift construction of an altar and temple dedicated to Caesar's memory

However, this contravened the XII Tables' prohibition of carrying out a cremation within the city

The pyre shape – Oldest Greek depictions

By what means do we acquire knowledge about the configuration of pyres from bygone eras?

Iconography plays a crucial role in revealing the shape of past pyres

One of the oldest and most impressive depictions of a pyre is this Attic red figure amphora, featuring Croesus at the stake as described in Book I of Herodotus

Note: the logs have an irregular shape, and the operator lights the pyre from the top



c. 500-490 BC

The pyre shape – Greek depictions

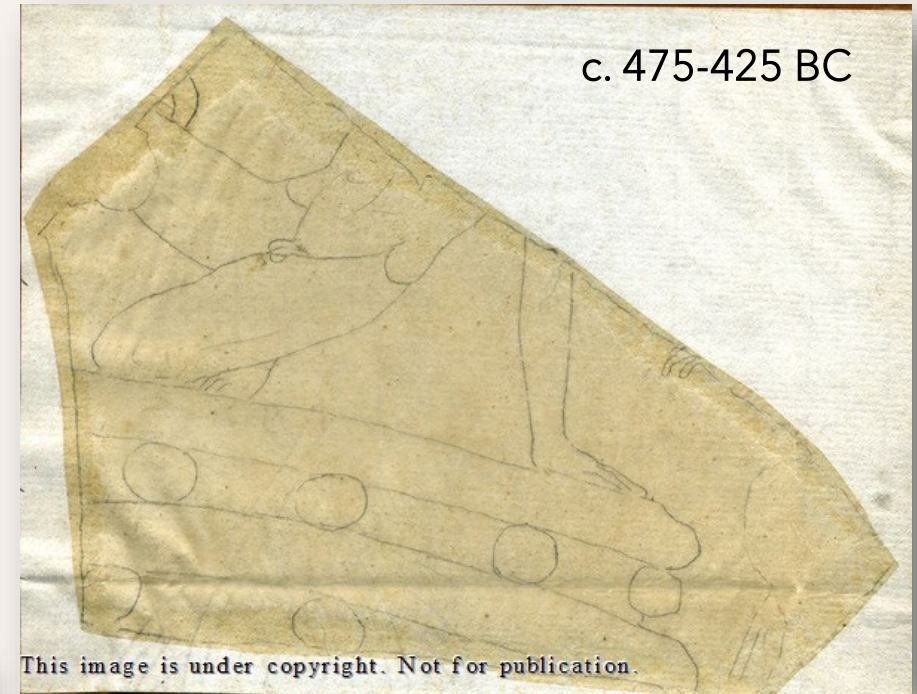
Among the earliest depictions of pyres, these two Greek representations stand out.

Although less well-preserved, we note that the pyres are built with layers of logs, each layer being laid at right-angles to the previous one.



c. 500-450 BC

Note: Herakles lying on his belly on a pyre



Note: Man seated on a pyre

The pyre shape – Greek style

The same pyre shape is used, with offset logs



360-320 BC

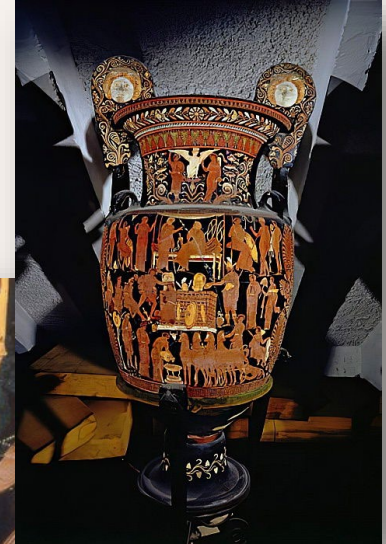
<https://www.caricov.ac.uk/care/resources/introduction-to-Greek-Pottery/key-pieces/pastan1/fy/thon>

Alcmena is seated upon a pyre. Amphitryon placed his wife on the pyre to test the veracity of her claim that Zeus had stolen her virginity in the guise of her new husband. The god quenched the flames, saving her life and verifying her claims.

In the middle of the middle row is the pyre for Patroclus with helmet and two breastplates. In front of the pyre kneels a youthful Trojan with his hands tied behind his back; Achilles has grabbed his head with his left hand and points his sword against it with his right.



https://www.peddicimages.com/index.php?page=https://www.peddicimages.com/econ_1/ricerca_detail.php?c_d_prodotto=41382



340-330 BC

The pyre shape – Other Greek depictions

Burning pyres were also depicted

410 BC



<https://www.persis.tufts.edu/Heracles/bio.html>

400-300 BC



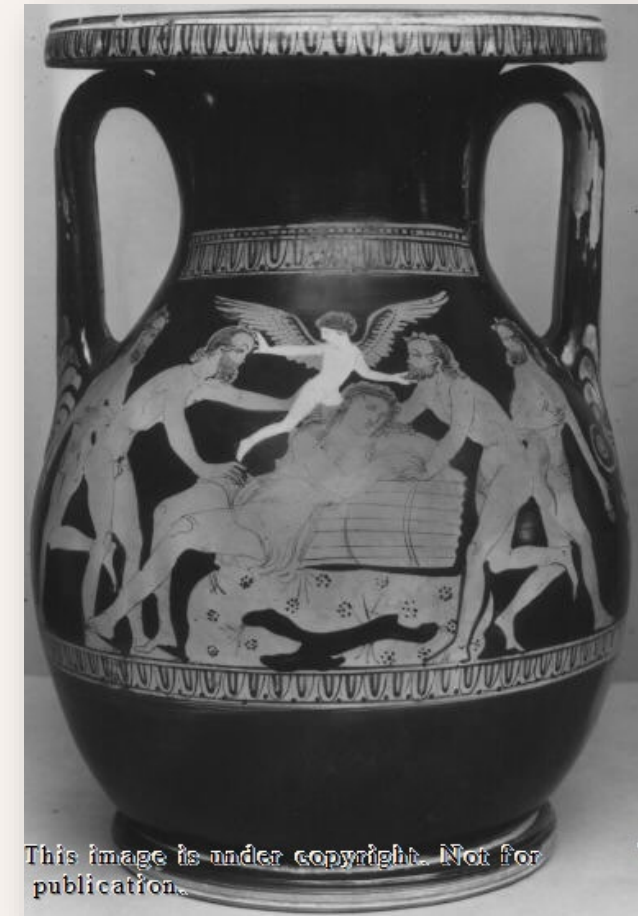
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<https://www.cmc.ac.uk/XDB/ASP/recordDetails.asp?recordCount=7&art=0>

In agony, Heracles requested his friends to build a towering wooden pyre on Mount Oeta. Upon laying himself on the pyre, he instructed them to set it ablaze. As the flames engulfed him, the gods observed from Olympus. Recognizing Heracles' immense suffering, Zeus intervened, prompting Athena to rescue him and transport him to Olympus.

Pyres, though occasionally arranged differently, consistently adhere to a square configuration

400-300 BC



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<https://www.cmc.ac.uk/XDB/ASP/recordDetails.asp?id=B2D42934.A7F1.4ED5.A078.4255ACFFDE¬Results=&recordCount=&databaseID=&search=>

A Satyr attacking a maenad sleeping on a pyre

The pyre shape – Roman depiction

End of 2nd c. AD

As the Greeks, the Romans used a similar iconography, with square, well-organized pyres made of several layers of logs.



Relief belonging to a funerary monument depicting Hercules on the stake

The pyre shape – Roman funeral

Terracotta lid of a sarcophagus. In the center is the funeral pyre. The body of the Meleager, accompanied by a wailing Meleagride, is carried onto it from the left. Two other wailing girls and Althaia are also depicted. The latter sinks to her knees and kills herself. Meleager is carried to the funeral pyre

Again, the same pyre shape

3rd c. AD



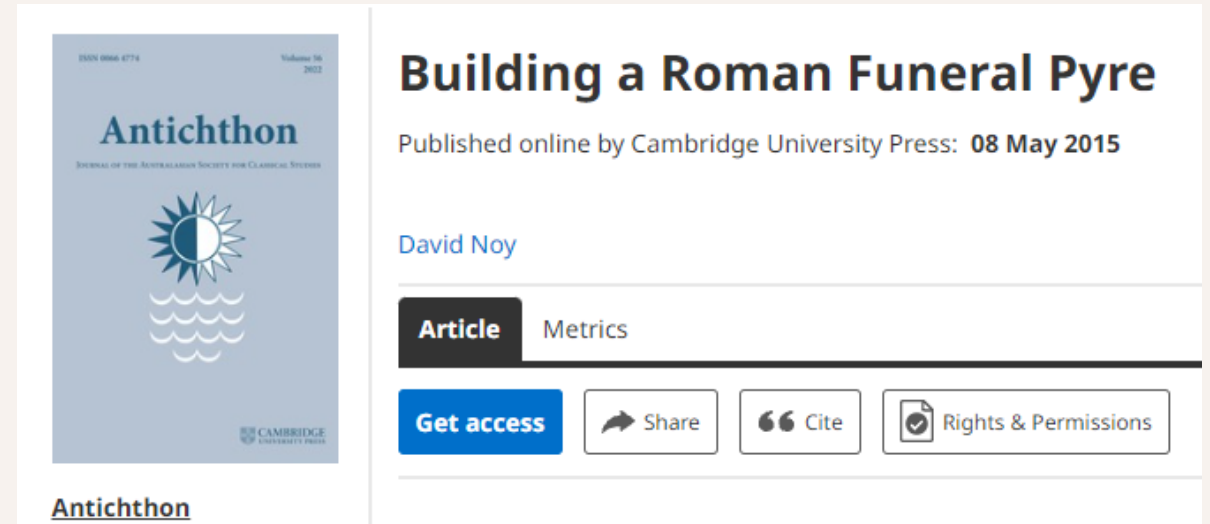
NB: It is worth noting that this is the depiction of a deceased body, as all other representations portray individuals in a state of being alive

<https://www.metmuseum.org/2020/11/11/woman-and-funeral-pyre/>

The pyre – Written sources

A must-read

Although Roman written sources are more informative than their Greek counterparts, they ultimately do not provide significantly greater insights compared to the iconography



<https://doi.org/10.1017/S0066477400001167>

1st c. AD



<https://sarahemilybond.com/2015/09/25/good-mourning-roman-clothing-courtrooms-and-the-psychology-of-color/>

Relief of a Roman funeral procession

Likewise, our knowledge regarding the positioning of the deceased on the pyre or if the cremation was always tended is notably scarce (at the bottom, within, upon, funeral bier, etc.)

And this information is, of course, non-existent for even earlier periods

Ethnographic examples

Ethnographic instances, particularly observed in Central Asia where open-air cremations are still practiced, demonstrate that there exist numerous diverse methods for the cremation of a body



Pyre in India next to the Ganges

Cremation ceremony in Bali



Mass cremation for Covid-19 victims in New Delhi

Experimental archaeology

Experimental burnings are unparalleled when it comes to gaining a comprehensive understanding of the intricacies and challenges associated with cremation



UCD Roman cremation pyre to investigate destruction & appearance of her ceramic lamps



The significance of archaeological evidence

Cremation encompasses also pre- and post-burning rituals that often leave minimal traces, yet in certain contexts, such as Pompeii, these practices become detectable



The recontextualization of cremated remains is key!

<https://eveha-international.com/?tag=pompei-porta-nocera&lang=en>



Necropolis of Porta Nocera in Pompeii



Van Andringa 2021

Insights from social anthropology

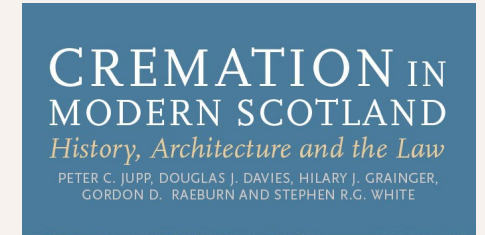
Across cultures and time, individuals are emotionally and spiritually impacted by death

The response to the loss of a loved one varies greatly from person to person and from culture to culture, yet remains profoundly personal

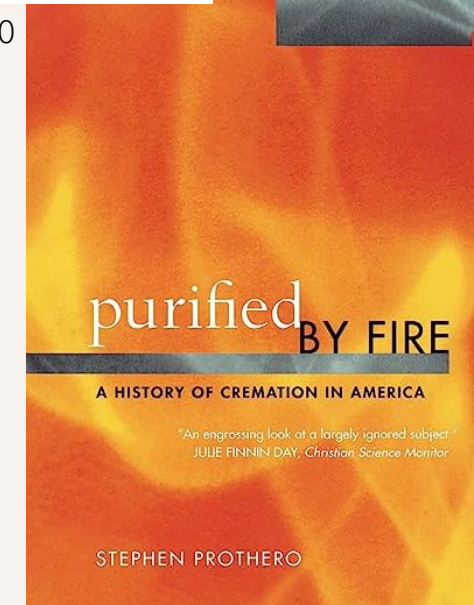
Social anthropology plays an invaluable role in capturing these dimensions that archaeology often struggles to comprehend



Nešporová 2020



Jupp et al. 2016



Prothero 2001

Cremation in crematorium

Nowadays, the process of transforming the deceased through fire is predominantly mechanized and carried out in crematoria

There is a disconnection in the ritual sequences, with relatives nowadays not actively participating in the act of burning the deceased as they did in the past

This approach also reflects the contemporary societal view of death and the process of cremation



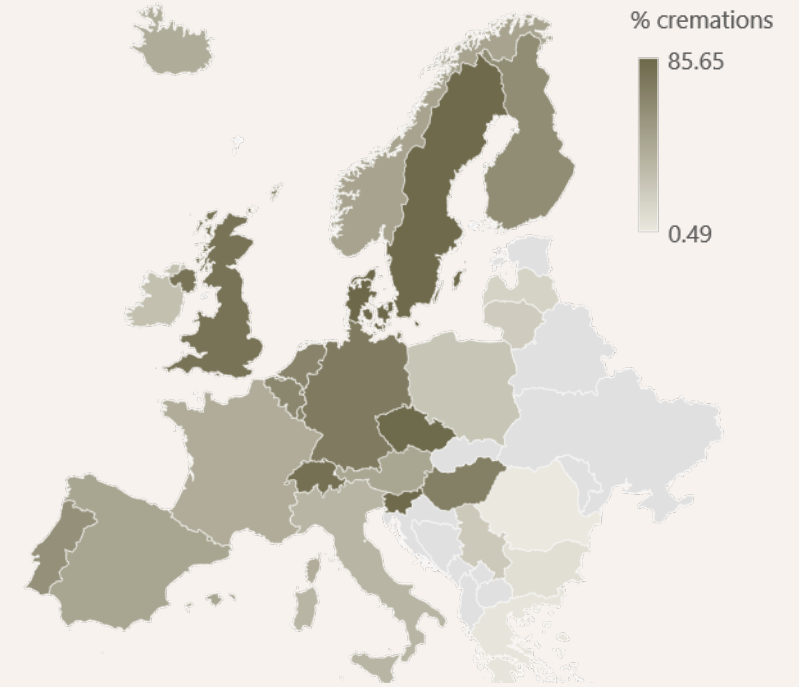
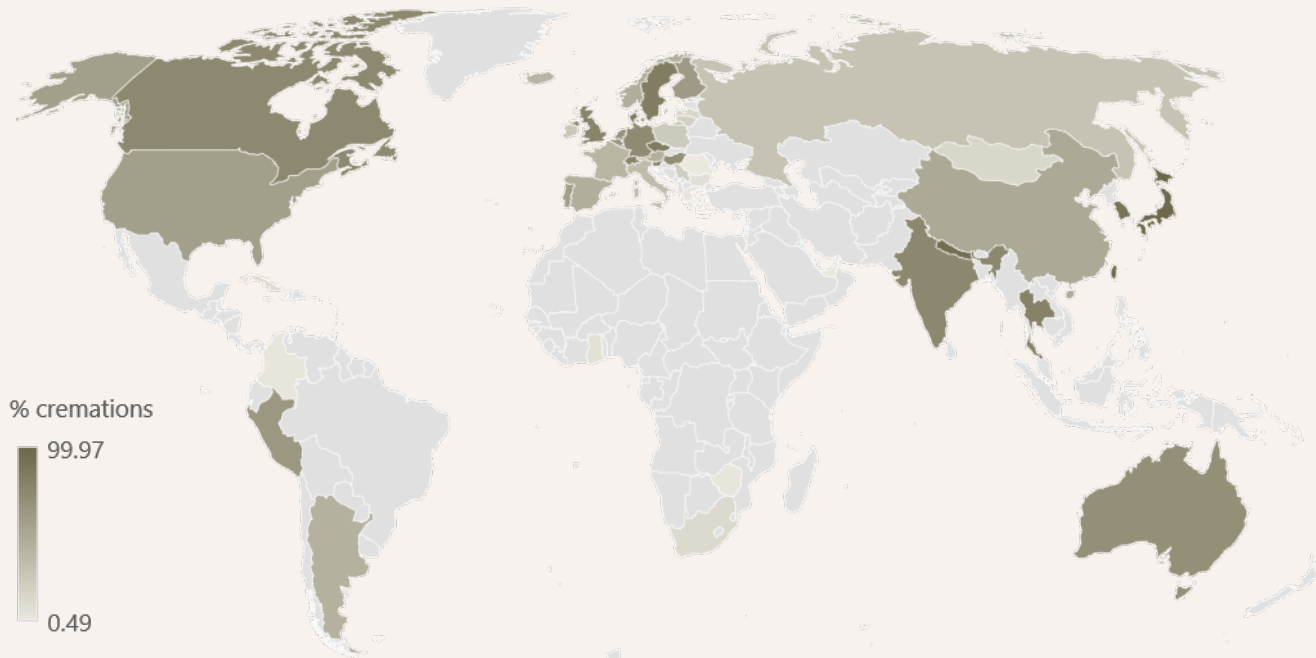
Crematorium's furnaces

Cremations around the world

Nations where cremation rates exceed 80%

- Europe: Switzerland, Sweden, Slovenia, Czechia, Denmark
- Asia: Thailand, Singapore, South Korea, Hong Kong, Nepal, Taiwan, Japan

International Statistics 2021



European Statistics 2021

Nations with cremation rates below 5%

- United Arab Emirates, Colombia, Zimbabwe, Greece

Source: The cremation society

<https://www.cremation.org.uk/International-cremation-statistics-2021>

Cremations not only for humans

Pet
crematorium

The objective of the pet crematorium is to provide a dignified farewell to cherished pets, emphasizing the evolving significance of animals

The facilities, furnaces and ritual sequences are eerily similar to those used for human beings

Hong Kong pet
funerals



<https://www.pet-crematorium.co.uk/about-us.html>



<https://www.reuters.com/world/asia-pacific/hong-kong-pet-funerals-are-respectful-farewell-father-than-landfill-waste-2021-09-06/>

Funny cases

The man responsible for the modern Frisbee design and the “Father of Disc Golf” was cremated and had his ashes molded into Frisbees to give to friends and family



<https://www.todayifoundout.com/index.php/2012/09/the-man-responsible-for-the-modern-frisbee-design-and-the-father-of-disc-golf-was-cremated-and-had-his-ashes-molded-into-frisbees/>

Ashes of man who designed Pringles packaging buried in crisp can



<https://www.onlyinyourstate.com/ohio/cincinnati/pringles-grave-cincinnati/>

Keith Richards from the *Rolling Stones* tells of snorting his dad's ashes with cocaine

Dispose of your ashes with care!
The big Lebowski (1998)



<http://allthegray.blogspot.com/2013/02/film-pett7-the-big-lebowski.html>



<https://www.theguardian.com/uk/2007/apr/04/drugandalcoholmusicnews>

Osteology!

What do bones
from a cremation
deposit look like?

Well-cremated remains
of complete adult (after
Little et al. 2017).

<https://www.cambridge.org/core/journals/antiquity/article/harp-investigating-mesolithic-landscapes-of-life-and-death-at-the-western-edge-of-europe/8E66BC64B12F5E3D952C3254AE4852F>

0 0.1m



A waste of time...

“I would straight away place on record my considered opinion, based on experience, that cremated remains of human bones in burial urns are almost always devoid of any anthropological interest ... From an anthropological point of view, therefore, these bones are of no scientific value, and I consider that nothing is lost if they are neither submitted to nor preserved in the Museum.”

Prof. C.M. Furst,
Chief Inspector of Antiquities in Stockholm, 1930s



Need for a course on cremation

The anthropology of cremation is often overlooked or underrepresented in Europe and other regions, lacking comprehensive training that spans archaeology, biological anthropology, and cultural anthropology.

However, to invigorate our inquiries, enhance our understanding, and advance ongoing research, it is crucial to prioritize the education and development of the next generation of scholars and researchers in this field.



Paving the way for the next generation of thinkers



Welcome to the *Anthropology of
Cremation* Summer School