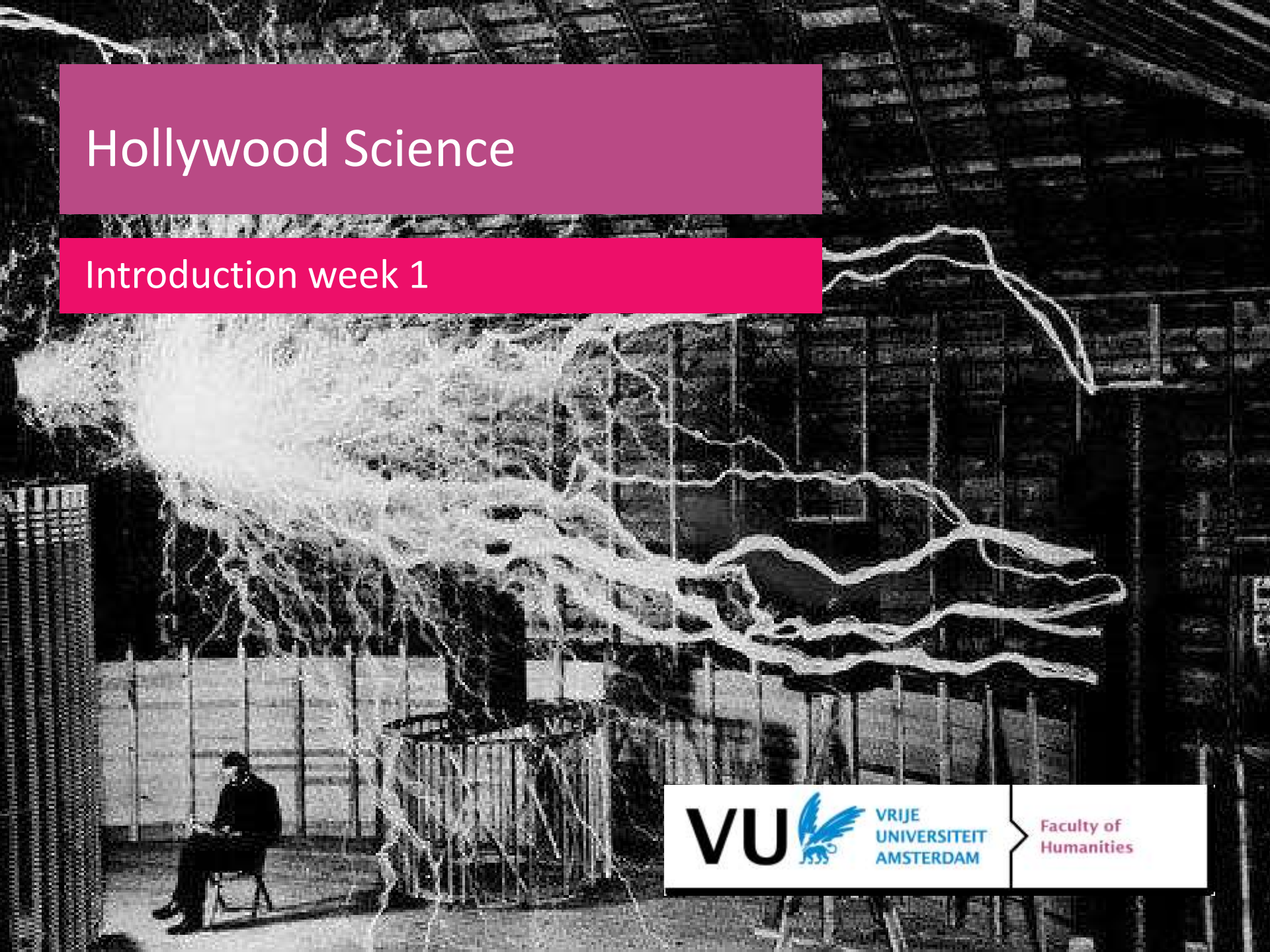


# Hollywood Science

## Introduction week 1



VRIJE  
UNIVERSITEIT  
AMSTERDAM

Faculty of  
Humanities

# Introduction

- Exploring the mutual influence between *Science* and the *Arts*
- From a literary studies perspective
  - History, 'textual' analysis
  - Critical mind
- Scientific breakthroughs and interesting phenomena

# Introduction

- Schedule
  - Lecture on Tuesday
    - 13:30 – 15:15h in HG-15A33 (main building)
  - Film screening on Thursday
    - 11:00 – 12:45h in HG-15A33 (main building)
- Excursion TBA

# Introduction

- Schedule

- Week 1: Science and Knowledge: An Introduction to the Debate
- Week 2: Science in Popular Culture: Representing and Misrepresenting
- Week 3: Science and Transgression: Crossing Boundaries
- Week 4: Decoding the Human Condition: What lies within?
- Week 5: Science and Space: What lies beyond?
- Week 6: Future Fiction/Future Fact
- Week 7: Science and fiction nowadays

# Introduction

- Assignments and grades
  - Journal reports (30%)
    - Journal report A
    - Journal report B
    - Journal report C
  - Attendance (10%)
  - Final assignment (60%)

# Introduction

- How are these graded
  - Creativity
  - Connecting with the course notes and literature
    - Perkowitz' *Hollywood Science* (2007)
  - Connecting with other (academical) sources
  - Usual spelling/writing/formulating etc.
- Please do:
  - Incorporate your own findings in a nuanced way!
  - Use the themes and debates from your own discipline (your major)!

# Introduction

- Please don't:
  - Plagiarise
    - Copying text, paraphrasing or summarising from others into your own document, without providing attribution.
  - Use Wikipedia if you do not have to
    - Check Canvas!
  - Use information from questionable sources

# Introduction

- Requirements

- Provide an answer to the questions in the assignment (Canvas)
- 500-1000 words ( $\pm 10\%$ )
- Bibliography/references
  - Use the system (e.g. APA, MLA) you prefer.



# Introduction

- Journal assignment A
  - Due 17 April
  - About week 1 & 2
  - See Canvas for further instructions

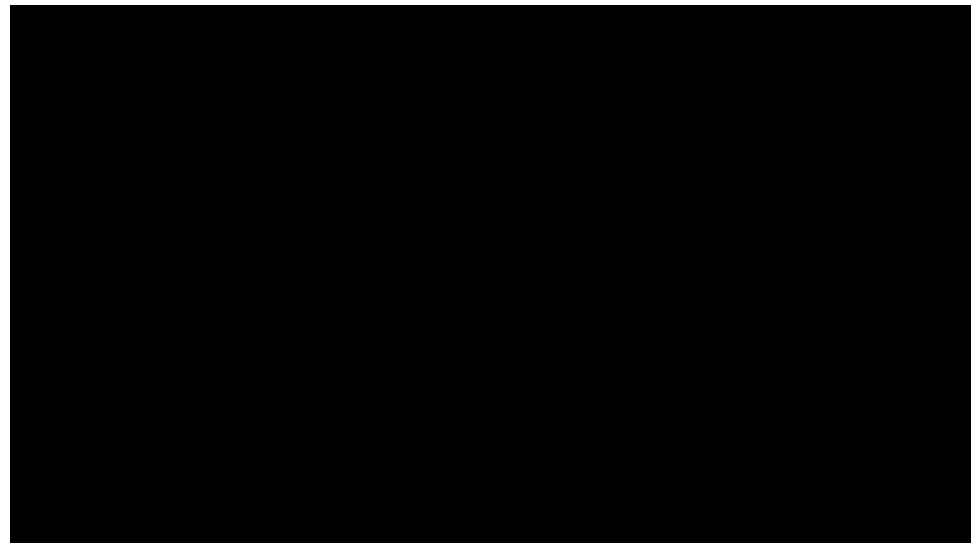
# Introduction

- Journal instructions and example

- Alba, the luminous rabbit

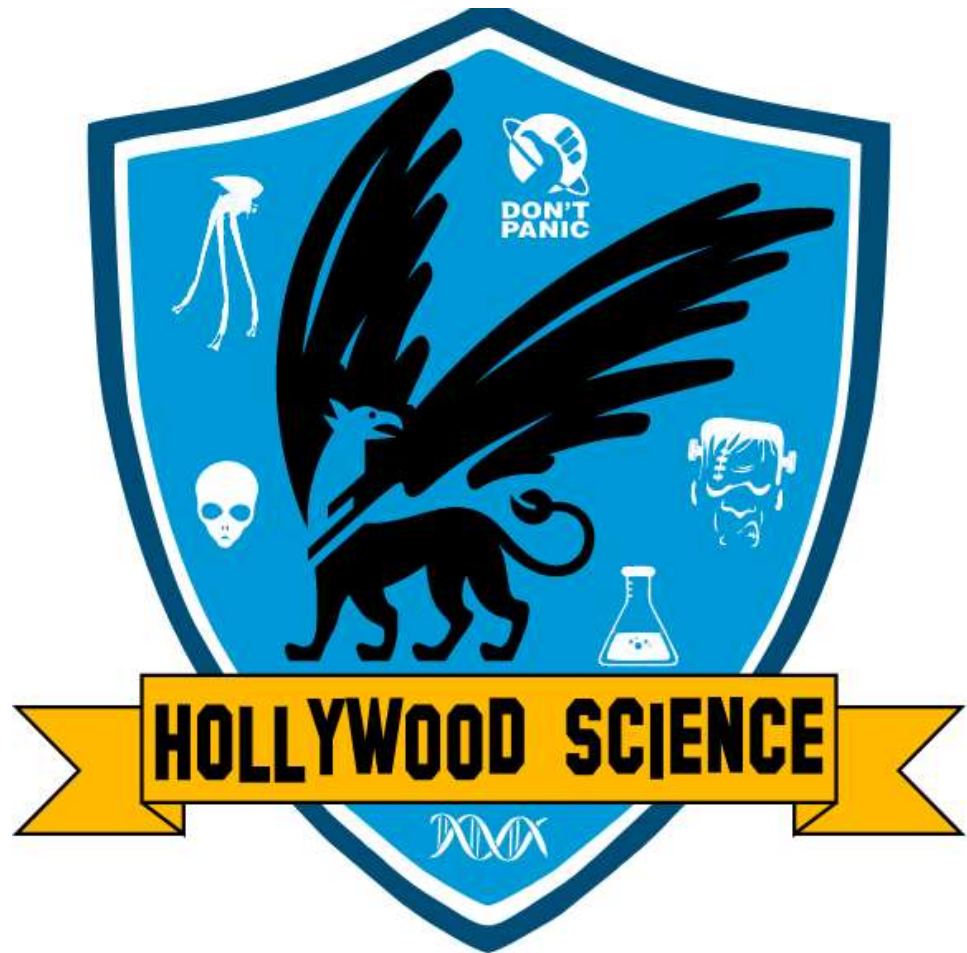
- <https://canvas.vu.nl/courses/30215/pages/journal-instructions>
    - Controversial scientific issues?
    - Colour?
    - More?

<https://youtu.be/dqQ-DSKObTI>



# Introduction: The badges?

- 'Microcredentialing'
- A goof



# Introduction

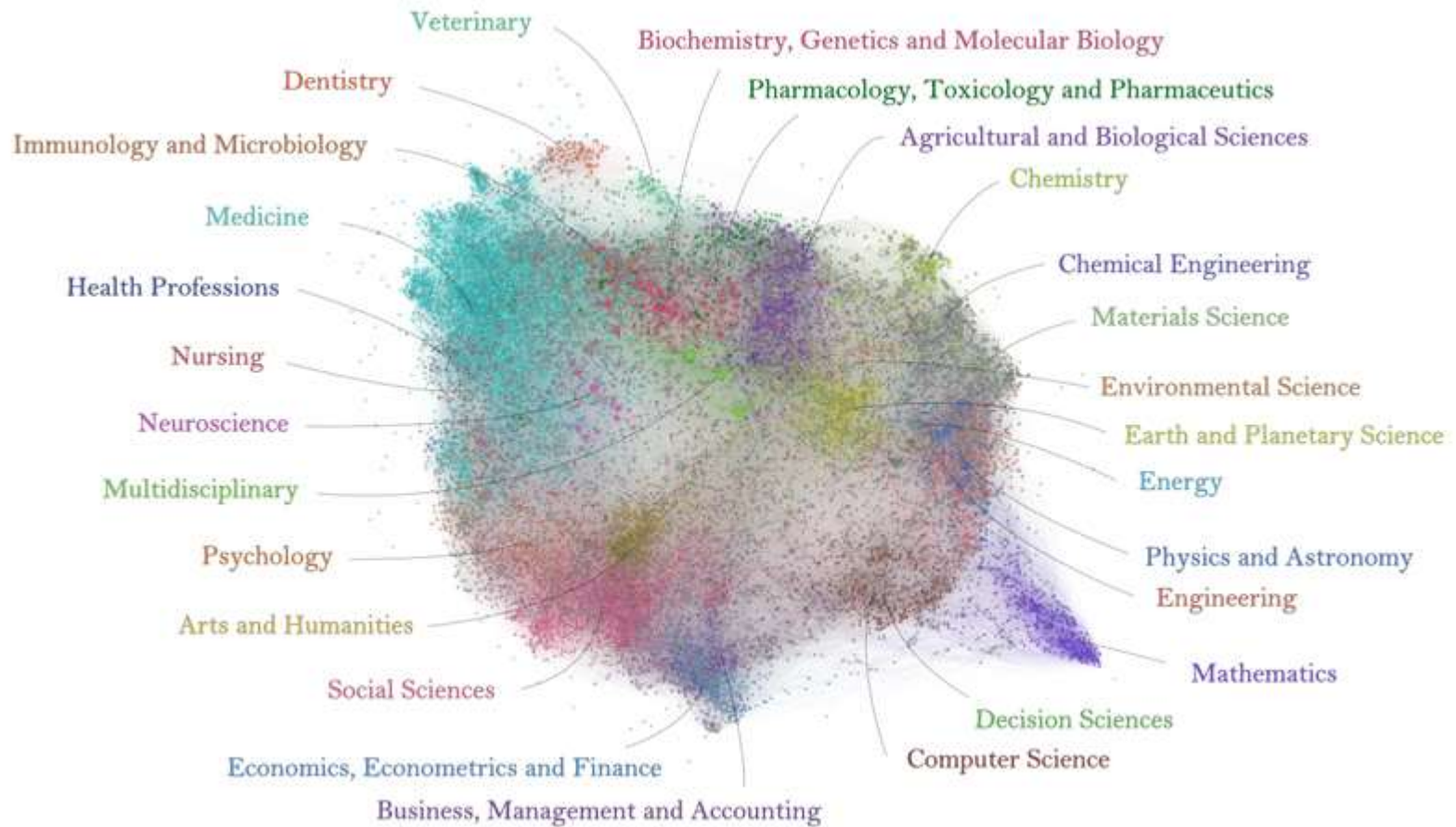
- Questions?
- E-mail me ([l.van.wissen@vu.nl](mailto:l.van.wissen@vu.nl)) or better:  
send a message in Canvas!

# A Tale of Two Cultures

Arts, Sciences and media



# Academics as we know them: Elsevier's Map of Science



Taken from: Richardson (2012)

# *Academics as we know them*

- Disciplines are shaped in the modern age and are an effect of (historical) transformations:
  - Specialisation
  - Diversification
- Scientific Revolution
  - Medieval ages: school curricula trivium, quadriuvium
  - Printing press
  - Microscope and interest for human body
  - Interest for human mind (psychology) in late nineteenth century
- Experimental methods
  - Focus on experimental approach: knowledge from observations
  - Experimenting!

# *Academics as we know them*

Wilhelm Dilthey (1833–1911):

- Natural sciences and Human sciences
- Explaining and understanding

Sciences or arts?

‘Scientists’: ‘Students of the knowledge of the material world’  
(Snow and Collini, p. xii)

‘Natural philosopher’: Scientist



# Two cultures

- C.P. Snow, physical chemist and novelist:
  - *The Two Cultures* (1959)
- According to Snow, there exist Two Cultures:
  - Humanities: arts, literature, philosophy, religion-studies...
  - Sciences: physics, chemistry, mathematics, biology...
- A third culture?

“Literary intellectuals at one pole—at the other scientists, and as the most representative, the physical scientists. Between the two **a gulf of mutual incomprehension**— sometimes (particularly among the young) hostility and dislike, but most of all lack of understanding. They have a curious distorted image of each other.” (p. 4)

# Two cultures

C.P. Snow, *The Two Cultures* (1959)

In order to solve 'world problems' this divide has to be overcome

“This polarisation is sheer loss to us all. To us as people, and to our society. It is at the same time practical and intellectual and creative loss, and I repeat that it is false to imagine that those three considerations are clearly separable.” (p. 11)

# Two cultures

C.P. Snow, *The Two Cultures* (1959)

- Too simple? Does this segregation exist?

“A good many times I have been present at gatherings of people who, by the standards of the traditional culture, are thought highly educated and who have with considerable gusto been expressing their incredulity at the illiteracy of scientists.

Once or twice I have been provoked and have asked the company how many of them could describe the Second Law of Thermodynamics. The response was cold: it was also negative.

Yet I was asking something which is about the scientific equivalent of: *Have you read a work of Shakespeare's?*” (p. 14-15)

# Two cultures

And nowadays, is it any different?

- March for Science
- Funding for the exact sciences

Change in 21<sup>st</sup> century

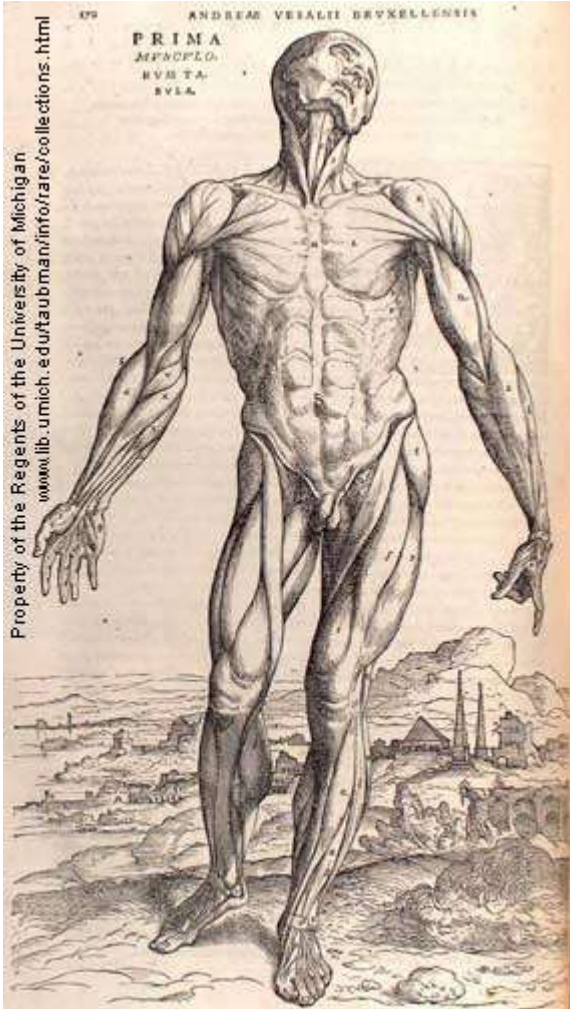
- Environmental Humanities
- Digital Humanities

# Two cultures

## Challenges:

- In academics:
  - Mutual understanding Arts and Sciences
  - Accepting methodological differences
  - Working together: interdisciplinarity
- In 'the real world':
  - How to mediate 'Science'?

## Art

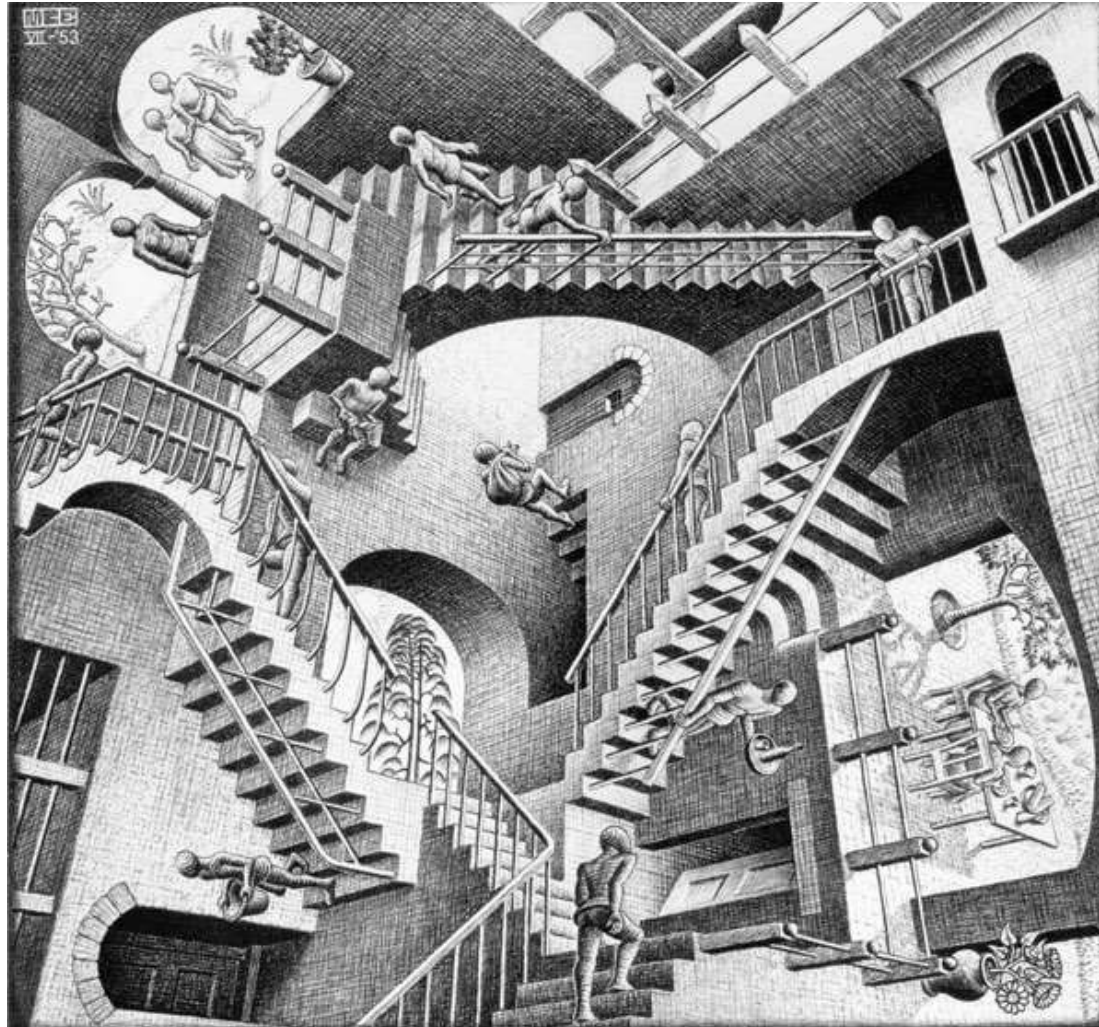


## Vesalius



## Rembrandt: *Anatomical Lesson*





Esscher: *Relativity*



Kiefer: *Sternenfall* (falling stars)





Nam June Paik: *TV-Budha*

# Science through mediation

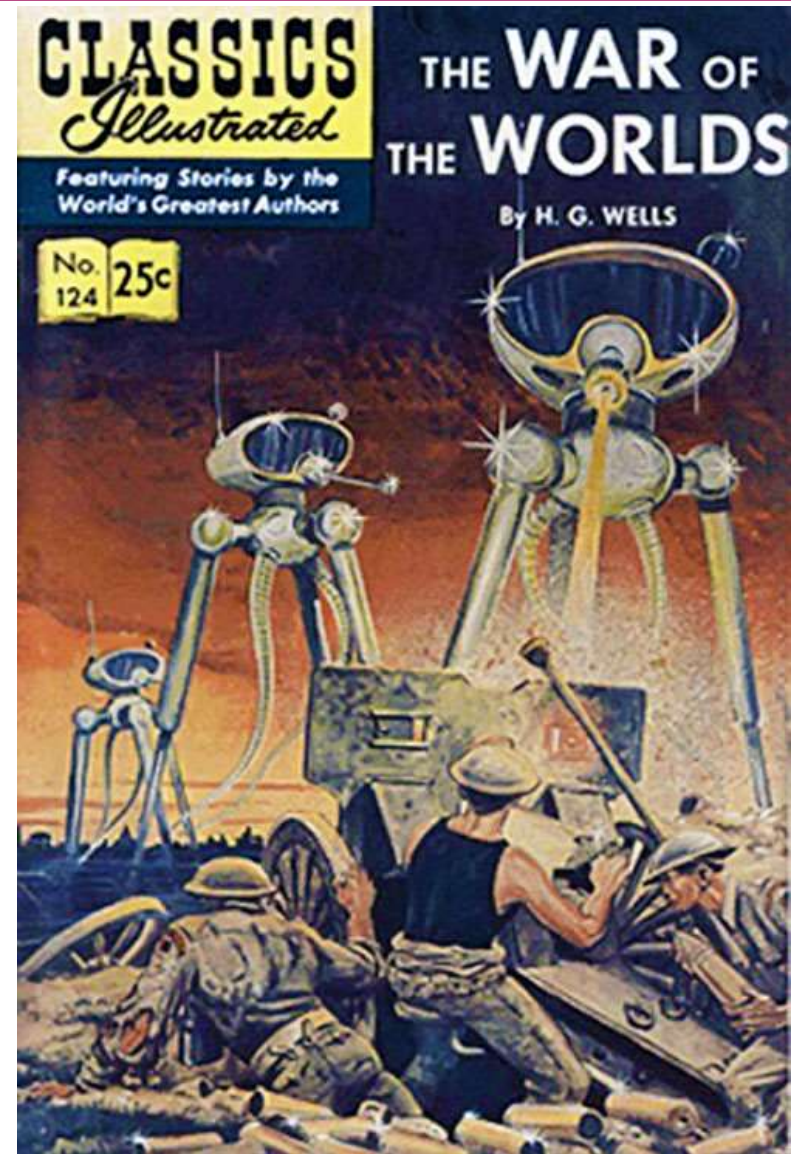
- Academic publications
- Documentaries
- Reports
- Lectures for the general public?

→ Fiction!

**Reactions to science are shaped by what we see on the screen.  
Hollywood forms our attitude towards the world.**

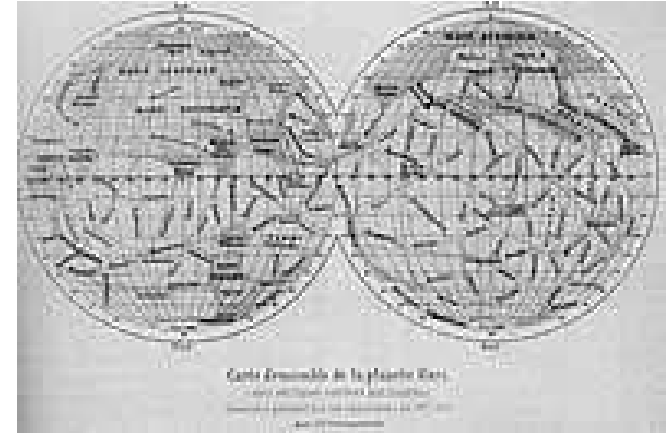
# H.G. Wells' *The War of the Worlds* (1898) [[Gutenberg](#)]

- H.G. Wells (1866-1946)
- Meteorite and flames from mars
- Martians are invading Britain
- Survival report
- Canonic Science Fiction text



# H.G. Wells' *The War of the Worlds* (1898)

- Giovanni Virginio Schiaparelli (1835-1910)
- 1877: Canali
- Percival Lowell (1855-1916)
- 1894: “Those canals prove there is intelligent life on Mars!”



“**Lowell's theories influenced the young English writer H.G. Wells**, who in 1898 published *The War of the Worlds*. In this novel, Wells created an invasion of Earth by deadly aliens from Mars and launched a whole new genre of alien science fiction.”

[https://www.nasa.gov/audience/forstudents/postsecondary/features/F\\_Canali\\_and\\_First\\_Martians.html](https://www.nasa.gov/audience/forstudents/postsecondary/features/F_Canali_and_First_Martians.html)

# Themes: H.G. Wells' *The War of the Worlds* (1898)

- Science

- Mars and E.T. life
- Weight of the Martians
- Air mixture Earth/Mars

- Industrial revolution

- Aluminium
- Horses/machinery
- Weaponry?

“I began to compare the things to human machines, to ask myself for the first time in my life how an ironclad or a steam engine would seem to an intelligent lower animal.”

(Chapter 11)

# Themes: H.G. Wells' *The War of the Worlds* (1898)

- Evolution
  - Martians more developed than humans
  - More intelligent?
  - Survival of the fittest

The last salient point in which the systems of these creatures differed from ours was in what one might have thought a very trivial particular. **Micro-organisms, which cause so much disease and pain on earth, have either never appeared upon Mars or Martian sanitary science eliminated them ages ago.** A hundred diseases, all the fevers and contagions of human life, consumption, cancers, tumours and such morbidities, never enter the scheme of their life.

(Chapter 2)

# Themes: H.G. Wells' *The War of the Worlds* (1898)

- Fear for the unknown
  - Fear for more intelligent life than humanity
  - Fear for other species
  - Hostile intentions?

“They did not eat, much less digest. Instead, they took the fresh, living blood of other creatures, and \_injected\_ it into their own veins. I have myself seen this being done, as I shall mention in its place.

[...]

The bare idea of this is no doubt horribly repulsive to us, but at the same time I think that we should remember how repulsive our carnivorous habits would seem to an intelligent rabbit.”

(Chapter 2)

# Themes: H.G. Wells' *The War of the Worlds* (1898)

- Hostile colonisation of Earth

- Victorian era ('spleen')
- 'New World'
- Post-colonialist?

"And before we judge of them too harshly **we must remember what ruthless and utter destruction our own species has wrought, not only upon animals, such as the vanished bison and the dodo, but upon its inferior races.** The Tasmanians, in spite of their human likeness, were entirely swept out of existence in a war of extermination waged by European immigrants, in the space of fifty years. Are we such apostles of mercy as to complain if the Martians warred in the same spirit?"

(Chapter 1)



## Themes: H.G. Wells' *The War of the Worlds* (1898)

- Fear for epidemics
  - Micro-organisms
  - Invasive organisms (Red weed)
- Refugees/survival

# H.G. Wells' *The War of the Worlds* (1898)

V · T · E		H. G. Wells's <i>The War of the Worlds</i> (1897)	[hide]
Related texts: "The Crystal Egg" · <i>Star Begotten</i>			
<b>Concepts</b>	Black smoke · Embankment machine · Fighting machine · Flying machine · <b>Handling machine</b> · HMS <i>Thunder Child</i> · Heat-Ray · Red weed		
<b>Characters</b>	Doctor Clayton Forrester · Martians		
<b>Derivative works</b>	<b>Novels</b>	<i>Fighters from Mars</i> · <i>Edison's Conquest of Mars</i> · <i>Sherlock Holmes's War of the Worlds</i> · <i>The Space Machine</i> · <i>War of the Worlds: New Millennium</i> · <i>The Martian War</i> · <i>War of the Worlds: Retaliation</i> · <i>The Massacre of Mankind</i>	
	<b>Radio</b>	<i>The War of the Worlds</i> (1938) · <i>The War of the Worlds</i> (1968)	
	<b>Films</b>	<i>The War of the Worlds</i> (1953) · <i>The Night That Panicked America</i> · <i>The War of the Worlds: Next Century</i> · <i>H. G. Wells' The War of the Worlds</i> (2005) · <i>H. G. Wells' War of the Worlds</i> (2005) · <i>War of the Worlds</i> (2005) · <i>War of the Worlds 2: The Next Wave</i> · <i>War of the Worlds: Goliath</i>	
	<b>Comics</b>	<i>Killraven</i> · <i>Superman: War of the Worlds</i> · <i>The League of Extraordinary Gentlemen, Volume II</i> · <i>Scarlet Traces</i> · <i>H. G. Wells' The War of the Worlds</i>	
	<b>Music</b>	<i>Jeff Wayne's Musical Version of The War of the Worlds</i> ("Forever Autumn") · <i>Highlights from Jeff Wayne's Musical Version of The War of the Worlds</i> · <i>Jeff Wayne's Musical Version of The War of the Worlds – The New Generation</i>	
	<b>Television</b>	<i>"The Night America Trembled"</i> · <i>The Great Martian War 1913–1917</i> · <i>War of the Worlds</i> (episodes · <i>Mor-Tax</i> · <i>Mor-Taxans</i> )	
	<b>Video games</b>	<i>War of the Worlds</i> (1982) · <i>The War of the Worlds</i> (1984) · <i>Jeff Wayne's The War of the Worlds</i> (1998) · <i>Jeff Wayne's The War of the Worlds</i> (1999)	
	<b>Short fiction</b>	<i>War of the Worlds: Global Dispatches</i> ("Mars: The Home Front" · "To Mars and Providence") · <i>Rainbow Mars</i>	

# Radio drama (1938)

- Orson Welles (1915-1985)
- Adaption of the novel
  - Martians landing in New Jersey
  - Halloween eve (October 30th)
- Fear?
  - WWII
  - Context?
  - Witnesses and authorities
  - Pretending to be non-fiction



## Radio drama (1938) [[Archive.org](#)]

- Introduction by Orson Welles

“We know now that in the early years of the twentieth century this world was being watched closely by intelligences greater than man's and yet as mortal as his own. We know now that as human beings busied themselves about their various concerns they were scrutinized and studied, **perhaps almost as narrowly as a man with a microscope might scrutinize the transient creatures that swarm and multiply in a drop of water.**”

(Listen [0:38-1:09](#))

## Radio drama (1938) [[Archive.org](https://archive.org)]

**ANNOUNCER TWO:** Ladies and gentlemen, we interrupt our program of dance music to bring you a special bulletin from the Intercontinental Radio News. At twenty minutes before eight, central time, **Professor Farrell of the Mount Jennings Observatory, Chicago, Illinois, reports observing several explosions of incandescent gas, occurring at regular intervals on the planet Mars.**

The spectroscope indicates the gas to be hydrogen and moving towards the earth with enormous velocity. **Professor Pierson of the Observatory at Princeton confirms Farrell's observation**, and describes the phenomenon as (quote) like a jet of blue flame shot from a gun (unquote). We now return you to the music of Ramón Raquello, playing for you in the Meridian Room of the Park Plaza Hotel, situated in downtown New York.

(Listen [3:38-4:30](#))

## Radio drama (1938)

Railroad tracks are torn and service from New York to Philadelphia discontinued except routing some of the trains through Allentown and Phoenixville. **Highways to the north, south, and west are clogged with frantic human traffic. Police and army reserves are unable to control the mad flight.**

(Listen [25:24-27:00](#))

**Orson Welles:** This is Orson Welles, ladies and gentlemen, out of character to assure you that The War of The Worlds has no further significance than as the holiday offering it was intended to be. The Mercury Theatre's own radio version of dressing up in a sheet and jumping out of a bush and saying Boo! Starting now, we couldn't soap all your windows and steal all your garden gates by tomorrow night. . . so we did the best next thing. **We annihilated the world before your very ears, and utterly destroyed the C. B. S.** You will be relieved, I hope, to learn that we didn't mean it, and that both institutions are still open for business. So goodbye everybody, and remember the terrible lesson you learned tonight. That grinning, glowing, globular invader of your living room is an inhabitant of the pumpkin patch, and if your doorbell rings and nobody's there, that was no Martian. it's Hallowe'en.

(Listen [57:35-58:40](#))

# “Panic broadcast of 1938”



## The New York Times.



[http://burro.case.edu/Academics/U\\_SNA229/WarWorldsNYT.pdf](http://burro.case.edu/Academics/U_SNA229/WarWorldsNYT.pdf)



# Or a hoax?

- “[...] almost nobody was fooled by Welles’ broadcast.” (Pooley and Socolow)
- Legend still persists
  - Search YouTube for documentaries or other stories on this broadcast



[http://www.slate.com/articles/arts/history/2013/10/orson\\_welles\\_war\\_of\\_the\\_worlds\\_panic\\_myth\\_the\\_infamous\\_radio\\_broadcast\\_did.single.html](http://www.slate.com/articles/arts/history/2013/10/orson_welles_war_of_the_worlds_panic_myth_the_infamous_radio_broadcast_did.single.html)



## Or a hoax?

“Blame America’s newspapers. Radio had siphoned off advertising revenue from print during the Depression, badly damaging the newspaper industry. So the papers seized the opportunity presented by Welles’ program to discredit radio as a source of news. **The newspaper industry sensationalized the panic to prove to advertisers, and regulators, that radio management was irresponsible and not to be trusted.**”

(Pooley and Socolow)

# Or a hoax?

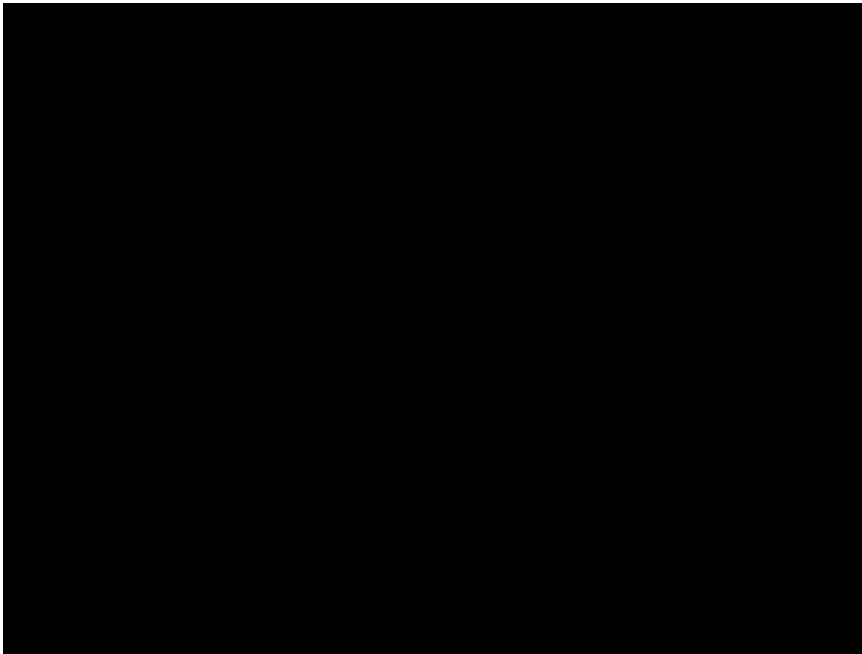
- Power of the media
  - Written vs. spoken media
  - Nearly 13k articles
- Propaganda? (cf. WW II)

"The 'panic broadcast' may be as much a function of fantasy as fact," writes Northwestern's Jeffrey Sconce in *Haunted Media*, suggesting that the panic myth is a function of simple displacement: **It's not the Martians invading Earth that we fear, he argues; it's ABC, CBS, and NBC invading and colonizing our consciousness that truly frightens us.** To Sconce, the panic plays a "symbolic function" for American culture—**we retell the story because we need a cautionary tale about the power of media.**

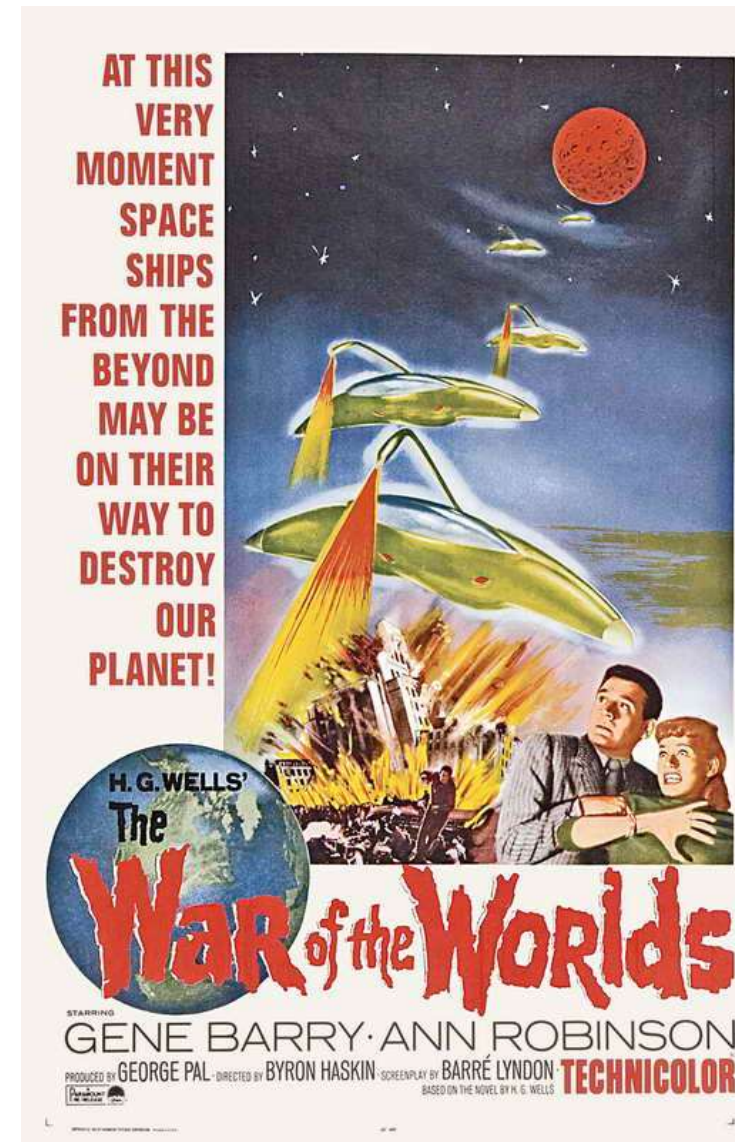
(Pooley and Socolow)

# Trailer *War of the Worlds* (1953)

- Director Byron Haskin

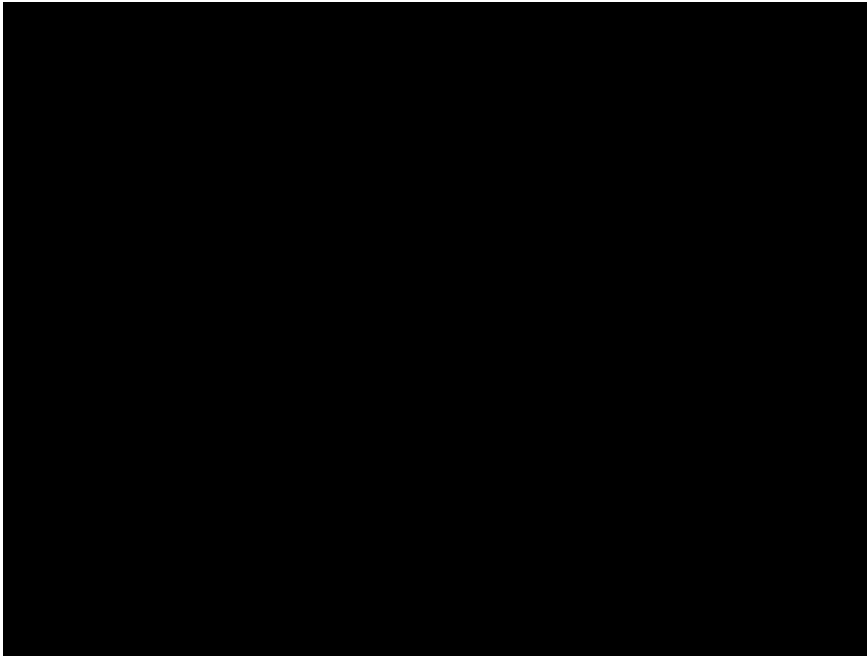


<https://youtu.be/6zrn1pp0NgU>

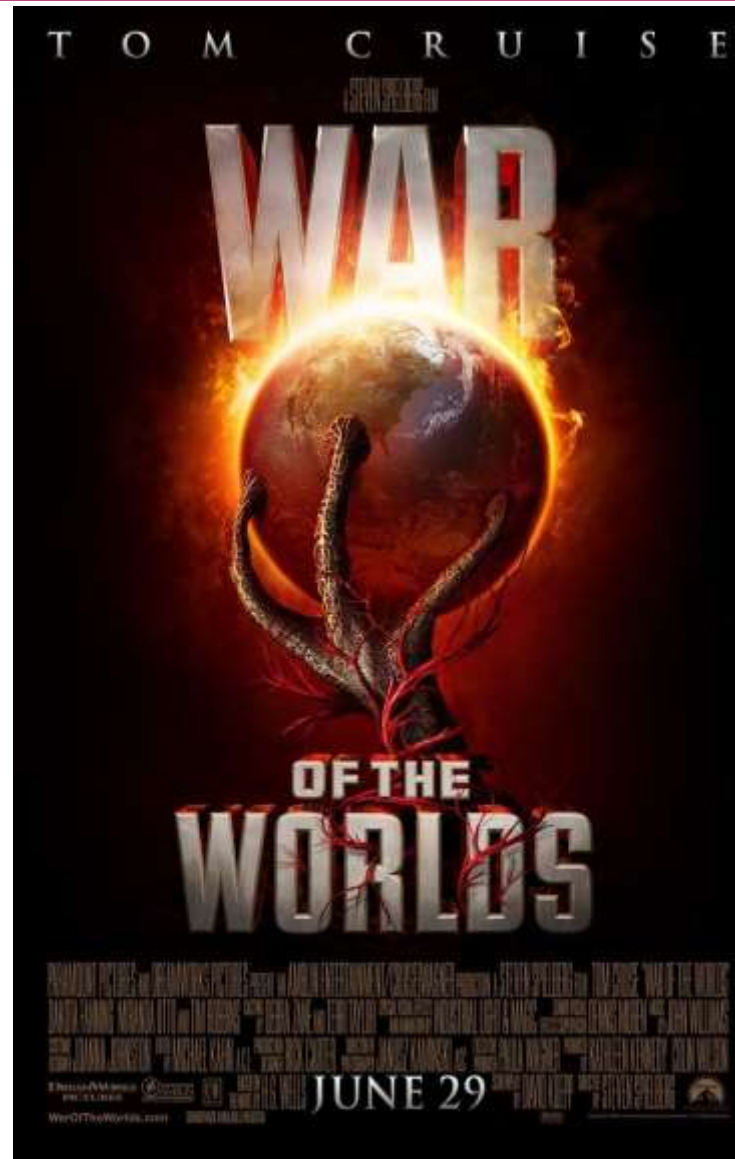


# Trailer *War of the Worlds* (2005)

- Director Steven Spielberg



<https://youtu.be/msxe3yJPfyY>

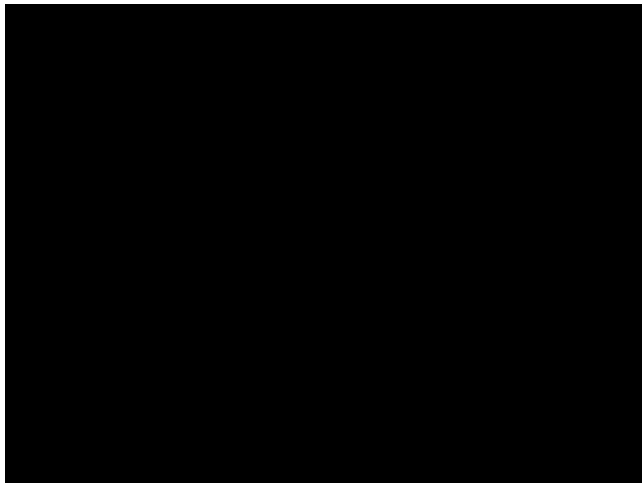


## Comparison: 1953 vs 2005

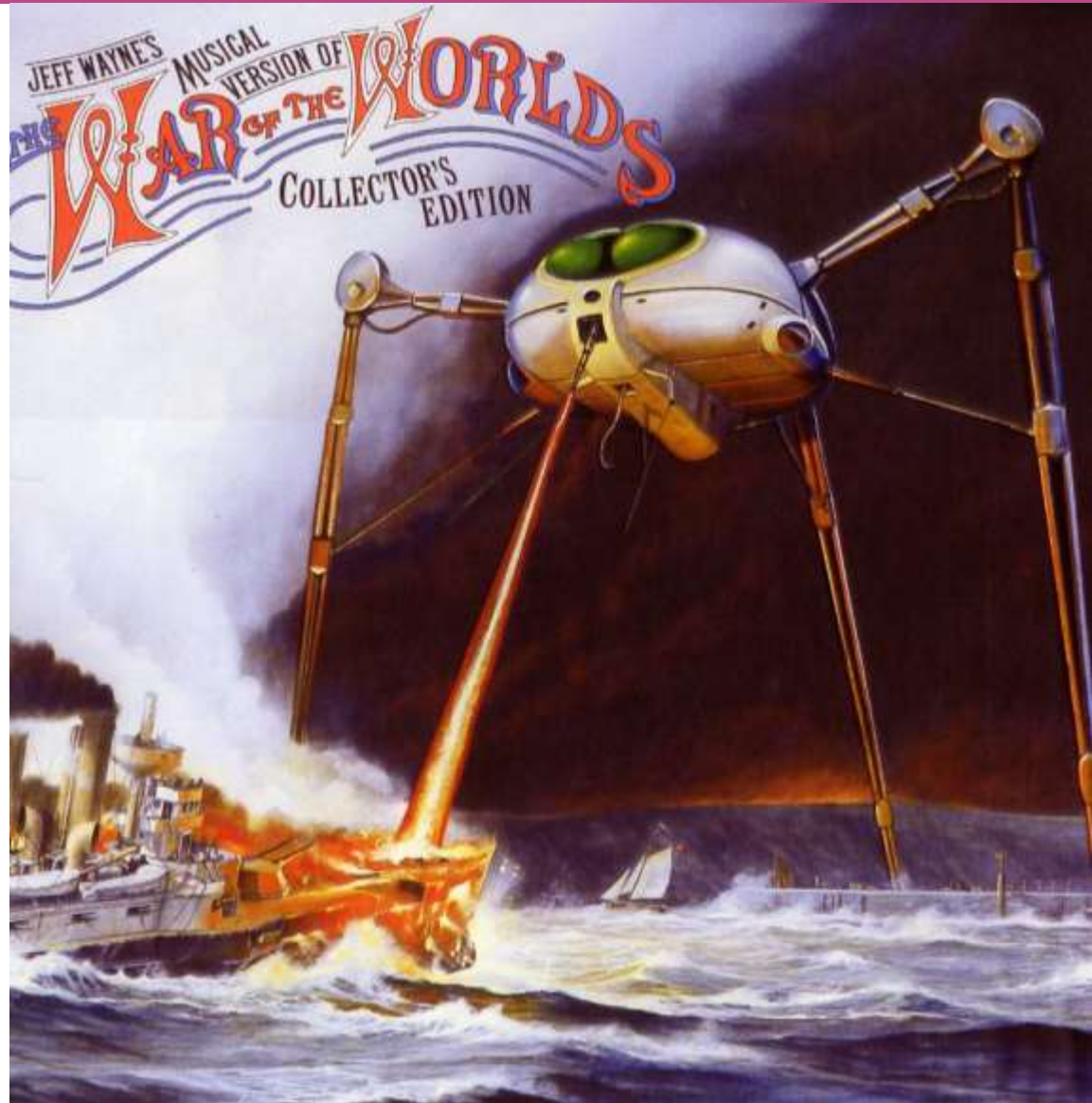
- Portraying the alien?
- Cinematographical effects?
- Theme and presentation?

# Musical (1978) [[Spotify](#)]

- Jeff Wayne (1943)



<https://youtu.be/VCwgV3fKMeg?t=5m>





# Musical (1978)

**Journalist:** Abruptly, the sound ceased. Suddenly, the desolation, the solitude, became unendurable. While that voice sounded, London had still seemed alive. Now suddenly, there was a change, the passing of something - and all that remained was this gaunt quiet. I looked up and saw a third machine. It was erect and motionless, like the others. An insane resolve possessed me, I would give my life to the Martians, here and now I marched recklessly towards the Titan and saw that a multitude of black birds was circling and clustering about the hood. I began running along the road. I felt no fear, only a wild, trembling exultation, as I ran up the hill towards, the motionless monster. Out of the hood hung red shreds, at which the hungry birds now pecked and tore.

I scrambled up to the crest of Primrose Hill, and the Martian's camp was below me. A mighty space it was, and scattered about it, in their overturned machines, were the Martians - dead... slain, after all man's devices had failed, **by the humblest things upon the Earth, Bacteria. Minute, invisible, bacteria!**

Directly the Invaders arrived and drank and fed, our microscopic allies attacked them. From that moment - they were doomed!

(From: *Dead London*, [5:00-](#))

In the making...

## BBC is making a Victorian-era War of the Worlds TV series

From the writer of the BBC's *Jonathan Strange and Mr Norrell*

By Andrew Liptak | @AndrewLiptak | May 4, 2017, 6:27pm EDT

f t  SHARE



Art: Henrique Alvim Corrêa

Illustration: <https://grantregan.com/the-fall-of-london/>

<https://www.theverge.com/2017/5/4/15551306/bbc-the-war-of-the-worlds-tv-series-peter-hartness>

Earlier today, [the BBC announced](#) a number of new shows, including a three-part series based on H.G. Wells' novel *The War of the Worlds*. The show is scheduled to go into production next spring, and it appears that, unlike most modern adaptations, it will be set in the Victorian era.

The series will be written by screenwriter Peter Harness, who adapted Susanna Clarke's Victorian-era fantasy novel *Jonathan Strange and Mr Norrell* for the network, as well as a handful of *Doctor Who* episodes. *The North-West Evening Mail* [has some additional details](#), quoting Mammoth Studios



## Sidney Perkowitz: *Devastating Collisions*

- We can already see lots of significant themes in *The War of the Worlds* that are being exploited in other science-fictions (still to come!)
- One of the main themes:
  - Fear of Earth being destroyed

# Sidney Perkowitz: *Devastating Collisions*

## Chapter 3

- Dangers from space
  - Other intelligence
  - 'Nature'
- Cold War influence
  - Nuclear weapons
  - Joint forces (US + USSR)
  - Rods from God
  - Imagination

More recent: Dangers from ourselves

# Sidney Perkowitz: *Devastating Collisions*

## Halley's Comet



Bayeux Tappistry (+- 1068)

# When Worlds Collide (1951), dir. Rudolph Maté

## Summary

- Discovered by scientists: A planet is about to hit earth
- People are building a space 'ark' to save themselves
- Success in escaping the planet



Melancholia (2011, dir. Lars von Trier)



# Trailer: When Worlds Collide (1951)



<https://www.youtube.com/watch?v=UBcrx7YslGs>

# Sidney Perkowitz: *Hollywood Science*

**Next week:**

**Genre problem Science Fiction**

“[...] it consists of stories that extrapolate known science to ask ‘**what if?**’” (Perkowitz, p. 6)

**Examples from Cold War influenced fictions**

Fantastic Voyage (1966)

**Stereotypes, intertextuality and Superman!**

# References

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