

File 1 – Methodology – Reading and presenting a press article

A selection on the Barbenheimer phenomenon

INSTRUCTIONS

Thursday Sept 7

1/ React to one of the four iconographic documents. What does it indicate or suggest?

2/ How would you define “the Barbenheimer phenomenon”?

3/ GROUP WORK

Read your text (A, B, C, G or D for the 5/2).

Identify the nature of the text, its general subject and specific key point.

Pick the key words and phrases.

Using the methodological document on the “texte en colle”, try to identify and hierarchise / organise the key ideas. Prepare an introduction

For Thursday Sept 14

4/ Read the whole file. Prepare a mind map on the issues highlighted in it (you can try to organise a commentary on your document or on text B)

5/ Optional: you can prepare notes as if for a colle on TEXT E

For Thursday Sept 21

6/ Finish translating the passages in bold letters in Text F



my tshirt arrived



TEXT A - “Barbie” and “Oppenheimer” show that blockbusters could save the cinema

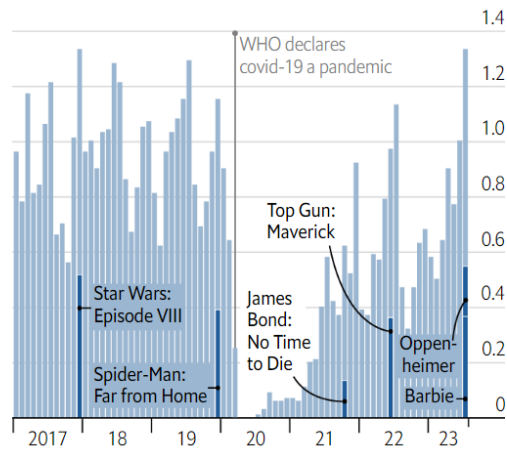
When films return, so do movie-goers

The Economist, Graphic Detail, Aug 9th 2023

Cinemas have struggled since the pandemic. In 2022 those in America made 35% less revenue than in 2019. But in July things looked brighter: they made \$1.4bn, the highest-grossing month since December 2019. A large chunk of that money has come from ticket sales for “Barbie”, a film about a famous plastic doll, and “Oppenheimer”, about the eponymous physicist who developed the nuclear bomb. Both films were released on July 21st. Box-office sales for “Barbie” have reached a total of \$1bn, Warner Brothers, one of the film’s production companies, announced on August 6th; \$459m in American theatres alone. “Oppenheimer” made \$229m in America and \$323m abroad. In Britain, Vue, a cinema chain, recorded its second-highest weekend admissions ever.

Return of the movie-goer

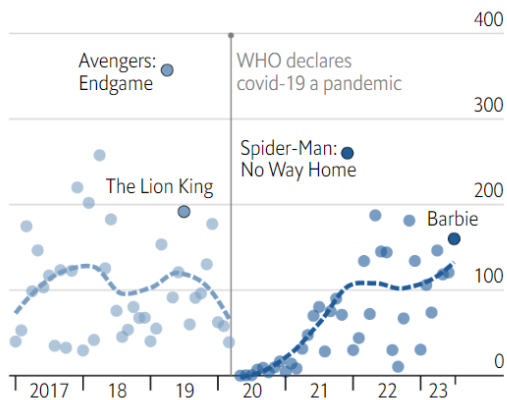
United States and Canada, monthly box-office revenue, \$bn



Source: Box Office Mojo

Barbie or bust

United States and Canada, largest film opening weekend each month, box-office revenue, \$m



Source: Box Office Mojo

The popularity of “Barbie” and “Oppenheimer” lays bare why cinemas have been struggling. During the pandemic, studios cut the theatrical window—the length of time between a film appearing in cinemas and it being available to stream—from around 70 days to 45 on average. Some films skipped the big screen altogether. Reed Hastings, Netflix’s co-founder, once guipped that cinemas have innovated nothing but the taste of popcorn. But the dash to streaming has been exaggerated: cinemas still have a pull. Tom Cruise held the release of “Top Gun: Maverick”, one of the most popular films of 2022, in which he starred, for two years rather than release it online. The latest James Bond film was delayed three times for the same reason.

Although lockdowns and streaming services have played a role in cinema’s recent decline (see chart above), the main reason for its slow recovery lies elsewhere. Our data analysis shows that audiences still have a taste for the big screen, but there are fewer films to lure them in. When “Barbie” and “Oppenheimer” came out, so did audiences. Films that go on “wide” release across America and Canada—that are shown in more than 600 cinemas—are still as popular as before the pandemic. But there have been fewer of them. In 2019, 130 films went on wide release. In 2020 and 2021 combined only 152 films did. In 2022 it was 110. So far this year, 97 films have been shown in more than 600 cinemas. Data show that the most widely released films are as popular as before the pandemic (see second chart).

During the pandemic many shoots had to be halted and some films were released online. While theatres have 55 further big releases to look forward to this year, such as “Wonka”, a prequel to “Willy Wonka and the Chocolate Factory”, as well as the latest “Hunger Games” instalment, the actors and writers’ strike could lead to delays in the production of blockbusters such as “Wicked” and “Gladiator 2”, which are due on the big screen in 2024. Oppenheimer’s stars left the London première early to join the picket line. So far the strikes have carried on for just over three months. Cinema-owners and -goers will hope that one side or the other will soon say it’s a wrap. (503 words)

Realism with “Oppenheimer”, or escapism with “Barbie”?

The Economist, Jul 14th 2023 (extracts)

They make an intriguing pair of rivals: he in a dark suit and porkpie hat, she in a gingham dress and matching hair bow. His domain is a vast scientific-research facility in New Mexico; hers is a fluorescent-pink party house with a slide. Robert Oppenheimer (played by Cillian Murphy, an Irish actor) spends his days corraling the finest scientific minds in America to create a nuclear bomb—work a colleague calls “the most important fucking thing to ever happen in the history of the world”. Barbie (played by Margot Robbie, an Australian actress) may seem like she has the perfect life, but she has existential worries too. Do her friends and fellow dolls, she wonders, “ever think about dying?”

No recent movie matchup has been as eagerly awaited as “Barbie” and “Oppenheimer”. Released on July 21st in America and Britain, the two films will serve as a test of whether viewers can be coaxed off their couches to return to cinemas. The incongruity in the films’ subject and tone has delighted the internet. People have created memes, remixed the trailers into jarring “Barbenheimer” hybrids and debated whether to see the biographical drama or the fantasy comedy first.

The brouhaha is partly a result of the film-makers. Christopher Nolan, the writer-director of “Oppenheimer”, is the closest thing Hollywood has to a mad scientist. (...) Greta Gerwig, the director and co-writer of “Barbie”, has her own large fan club. (...)

The “Barbenheimer” rivalry brings a more serious question for the public: whether to favour realism or escapism. As war rages on in Europe, and countries including China and North Korea continue to develop their nuclear arsenals, the origin story of these weapons of mass destruction may feel too real and raw. “Oppenheimer” is not a film that will ease viewers’ anxieties. It explores the physicist’s concerns about the horrifying power of his weapon and other bombs; it also shows how the American government attempted to silence him when those

opinions became politically unpopular. Oppenheimer has disturbing visions of the bomb’s victims in excruciating pain, their skin peeling. “Some people leave the movie absolutely devastated,” Mr Nolan has said. “They can’t speak.”

From Hiroshima Barbie Land

Ms Gerwig’s production is much more playful. She has described the set—which contributed to a global shortage of pink paint—as “a dopamine generator”. The film’s tone is witty and slyly self-referential: it pokes fun at Mattel, here run by a team of men, and the vexed history of the toys. (The Barbies mistakenly assume that all women revere them as role models.) It has the kind of plot that only makes sense if a viewer does not think about it deeply.

“Barbie” recognises the alluring comfort of dream worlds. At one point Weird Barbie, a doll that has been handed around and mistreated, offers Barbie a choice, symbolised by a high heel and a clunky Birkenstock sandal: “You can go back to your regular life, or you can know the truth about the universe.” Barbie chooses the stiletto and is quickly chastised. “You have to want to know, ok? Do it again.”

“Barbie” and “Oppenheimer” offer another version of the Birkenstock-stiletto dilemma. History suggests more viewers will opt for escapism. During the Great Depression, many of the highest-grossing films were musicals or historical epics. The same was true during the second world war. Movies that did broach the subject of conflict, including “Gone with the Wind” and “Sergeant York”, were often set in the past; those that were contemporaneous, such as “Casablanca”, tended to tell love stories rather than tales of grisly combat. In 1968, at the height of the Vietnam war, the biggest movie in America was “Funny Girl”. In 2007, during the financial crisis, it was a film from the “Pirates of the Caribbean” franchise.

David Thomson, another film historian and author, reckons that, at a time of economic strain, war and populism, viewers will not want to see a serious film as much as they will want to see a frivolous one. “Comedies have always done well at the movies,” he says, because they do “something that the movies were made for, which is to reassure people and give them a couple of hours of escape from pretty big problems.” Who wants reality when life in plastic is so fantastic? (719 words)

TEXT C –

‘Barbenheimer’ Isn’t Funny in Nuclear-Scarred Japan

By Ben Dooley and Hisako Ueno, Reporting from Tokyo, *The New York Times*, Aug. 1, 2023

To Americans eager for signs of life in an ailing cinema culture, the simultaneous box office success of the “Barbie” movie and the biopic “Oppenheimer” has been cause for celebration, with filmgoers embracing the jarring juxtaposition of the two very different blockbusters.

In Japan, however, this jubilant fusion, including “Barbenheimer” double features and online mash-ups of Barbie’s pink fantasia with images of Oppenheimer-era nuclear explosions, have been met with a very different response: anger. For days, Twitter users in Japan, where nuclear bombings by the U.S. military during World War II killed hundreds of thousands of people in Hiroshima and Nagasaki, have been spreading the hash tag #NoBarbenheimer.

And on Monday, the backlash ignited a rare display of internal Hollywood corporate discord, as the Japanese subsidiary of Warner Bros. criticized its headquarters’ handling of social media for the “Barbie” movie.

In a letter posted to the official Japan account for “Barbie,” which will be released in Japanese theaters on Aug. 11, the Japan subsidiary lamented its American counterparts’ promotion of Barbenheimer memes as “highly regrettable.” In one such instance, the official “Barbie” movie account responded to a fan-made image depicting Barbie with an atom bomb bouffant with the comment, “This Ken is a stylist.” In another, it replied with a kissy-face emoji to a movie poster showing Barbie and J. Robert Oppenheimer, the father of the atomic bomb, against the backdrop of a nuclear explosion. “It’s going to be a summer to remember,” the studio’s tweet said.

Some Japanese Twitter users responded with photos of the bombing victims. Others said that they had canceled their plans to see the movie. “Nuclear weapons aren’t cool,” one user wrote in reply to a tweet promoting the movie.

Barbenheimer, the Japanese Warner Bros. subsidiary noted, “is not an official activity” of Warner Bros., and it said it had demanded that the company’s headquarters take “appropriate action.”(...) In a statement on Tuesday, the Warner

Bros. headquarters said it “regrets its recent insensitive social media engagement” and offers “a sincere apology.” The “Barbie” movie account’s replies to Barbenheimer posts have since been removed.

While the “Barbie” movie will be released in Japanese theaters days after the 78th anniversary of the Hiroshima and Nagasaki bombings, “Oppenheimer,” a Universal Pictures film, has not yet received a release date in Japan. That has led to some speculation that the movie may not be shown at all in Japan, to avoid offending local sensibilities over the legacy of the nuclear attacks. In response to a question from *The New York Times*, Universal said it was not aware of the Barbenheimer controversy.

An official ban seems unlikely: Japan has robust freedom of speech, and previous American movies touching on war-era subjects have played to modest audiences in the country. That includes the 1996 film “Infinity,” about a scientist involved in the Manhattan Project, which was led by Dr. Oppenheimer and gave birth to atomic weapons.

It’s also not unusual for foreign films to debut in Japan well after their releases at home. “Infinity” took nearly two years to make it to Japanese cinemas. (514 words)

TEXTE D-

«Oppenheimer, le soft power du cinéma et la culture scientifique»

Par Aurélie Jean, Publié le 27/07/2023 - FIGAROVIX/CHRONIQUE -

Aurélie Jean est docteure en sciences et entrepreneure. Elle a notamment publié *Les algorithmes font-ils la loi?* (2022), aux éditions de L'Observatoire et coécrit *Résistance 2050* (2023) aux éditions de L'Observatoire.

Parmi les sorties cinéma de cet été, deux films se démarquent par l'attente qu'ils ont déclenché depuis des mois chez les spectateurs, mais aussi par leur qualité extraordinaire: Barbie de Greta Gerwig et Oppenheimer de Christopher Nolan.

D'excellents films chacun à leur manière, ils montrent une fois de plus le pouvoir d'influence, appelé aussi soft power, des films, pour nous interroger sur notre place dans l'ordre du monde, nous faire réfléchir aux grands sujets de notre temps, ou encore nous inspirer. Le soft power du cinéma et des séries dans les domaines scientifiques en fait largement partie.

Ce terme initialement inventé pour exprimer le pouvoir politique entre les États ou au sein d'un même État, selon une méthode dite douce et subtile, le soft power s'est élargi depuis à quasiment tous les domaines. Par le cinéma et la télévision, on utilise l'image et le son pour convaincre en invoquant la raison mais aussi et surtout pour persuader en invoquant des émotions et des sentiments. Le sentiment étant la conscientisation de l'émotion qui lui correspond. Les films et les séries ont toujours été des médias d'influence tant sur les aspects culturels que politiques, au point de nommer une époque en particulier du nom d'un film ou d'une série populaire du moment. Ces mêmes films et séries ont aussi parfois transformé la société en profondeur. Véronique Chabourine qui s'intéresse de près au soft power affirme «Le soft power déconstruit les représentations sociales stéréotypées», celles sur les femmes scientifiques en font partie.

On se souvient tous du film Les figures de l'ombre (2016) qui raconte - enfin ! - le travail de ces trois brillantes Afro-Américaines qui participèrent dans les années 60 aux calculs réalisés pour les programmes d'exploration spatiale de la Nasa. On pense aussi à la série Le Jeu de la dame (2020) qui suit les aventures d'une jeune fille douée au jeu d'échecs et qui inspira de nouveaux joueurs à travers le monde avec un bond de 500% en quelques semaines! Un peu plus ancien, la série X-Files (1993-2018) et en particulier le personnage du Dr. Dana Scully, inspira un grand nombre de jeunes filles à étudier les STEM après le lycée. On parle même d'effet Scully.

Plus généralement, une étude de 2017 démontre les effets des séries télévisées comme Urgences, Grey's anatomy ou encore Dr. House sur l'augmentation des inscriptions en faculté de médecine peu importe le genre des étudiants. Les mêmes constats ont été faits sur le pouvoir d'influence des séries comme Big Bang Theory qui inspira de nombreux futurs scientifiques, ingénieurs et chercheurs à comprendre notre monde au profit de l'humanité!

Oppenheimer parle de sciences et de scientifiques, de politique, de conflits, d'éthique, et d'humanité. Ce film nous interroge sur les conditions de pilotage d'un projet comme celui de Manhattan, sur les conséquences des travaux scientifiques en général, sur la considération que nous portons individuellement et collectivement envers les scientifiques, la définition même d'innovation, ou encore le rôle des dirigeants politiques dans les grands programmes nationaux. Ce film peut aussi inspirer les prochaines générations de scientifiques en physique quantique, discipline dont la part d'inconnu et d'incompréhension est encore grande comme dans la plupart des autres domaines scientifiques.

Travailler dans les sciences en pensant toujours au mal que l'on peut faire (même à une minorité) était le sujet du premier cours d'éthique que j'ai suivi en 2009, à peine arrivée à l'Université d'État de Pennsylvanie. Oppenheimer est l'incarnation de cette première leçon et plus généralement du pouvoir influençant du cinéma qui nous plonge dans le noir pour nous éclairer !

TEXT E –

Editorial: 'Barbie' is a billion-dollar milestone for women in Hollywood

The Los Angeles Times, Aug.8, 2023

BY THE TIMES EDITORIAL BOARD, AUG. 8, 2023

Greta Gerwig's irrepressible movie about the doll has earned an estimated \$1.03 billion at the box office, making her the first solo female director to have a movie top that stratospheric billion-dollar mark. And she did it fast — in just 17 days. The movie opened in the U.S. on July 21 and has crushed it at the box office ever since. Last weekend, domestically in ticket revenue Barbie beat Oppenheimer, Teenage Mutant Ninja Turtles and a giant prehistoric shark.

We exulted in 2017 when Patty Jenkins' "Wonder Woman," an action movie centered on a female star, Gal Gadot, earned \$103 million its debut weekend in the U.S., making it the best domestic opening ever by a woman director at the time. And we noted that it drew almost as many men as women into movie theaters. Surely this

was proof to Hollywood studio heads that a woman director could make an action film about a woman and make a ton of money.

Or perhaps not. In the last 10 years, only three films with female directors — “Frozen,” “Frozen 2” and “Captain Marvel” — have earned over \$1 billion and they had male co-directors.

Now, with “Barbie,” Gerwig has not just broken every revenue record for a film by a woman director, she did it with an unapologetically fun, feminist and pink-lavished movie about a *doll*.

As reviews have noted, it both revels in and sends up the Barbie stereotype (actor Margot Robbie’s magnificently Barbie-arched foot!) then dispatches her and a stowaway Ken on a journey from Barbie Land to real-life Los Angeles, where Barbie is shocked to learn sexism exists in, of all places, the boardroom of Mattel, the giant toy company that created her. (Mattel, of course, in real life stands to make money from this movie as well.)

It was the genius of Gerwig (who co-wrote it with her partner, the writer/director Noah Baumbach) to create and direct a movie that is exuberant and tear-provoking in one sitting. Women of all generations have flocked to it in droves, many dressed in pink, from sequined skirts to cotton T-shirts. Some men are going as well. “Across social media, many women have been encouraging one another to use the movie as a litmus test to gauge whether their male dates can understand, or are at least receptive to, its feminist messaging,” according to an NBC News story. (...)

The box office is beginning to rebound post-pandemic — “Barbie” is outranked this year so far only by “The Super Mario Bros. Movie,” which has grossed more than \$1.35 billion worldwide — but this is still a grim time in Hollywood. Writers and actors have been on strike against studios and streamers, and among their complaints is that studios are making tons of money but not sharing it fairly.

Things have improved for women in front of and behind the camera, but there’s a long way to go to reach parity. The number of women at the helm of movies inches up at a snail’s pace. Women accounted for just 18% of directors for the top 250 grossing domestic films in 2022, up 1% from 2021. Only 11% of directors on the top 100 films of 2022 were women. (...)

Meanwhile, four high-level diversity executives in Hollywood — all Black women — either resigned or were forced out of their jobs in late June.

Although Gerwig was already successful, having directed “Little Women” and “Lady Bird” — which earned her a nomination for a best director Oscar— this milestone puts her at the top in the hierarchy of Hollywood — a credit to her talent and a wake-up call to studios that diversity of talent isn’t just good for publicity, but also the bottom line. (615 words)

TEXT F –

Grève à Hollywood : les acteurs craignent d’être « remplacés par des machines »

Le Monde, Par Corine Lesnes (San Francisco, correspondante) 14 juillet 2023

Après les scénaristes le 2 mai, les acteurs américains ont entamé un mouvement de grève jeudi 13 juillet. Comme leurs camarades de l’écrit, ils réclament de meilleurs revenus du streaming et des garanties contre l’irruption de l’intelligence artificielle dans le monde de l’image et du son.

La grève a été annoncée après un vote du bureau du SAG-AFTRA (Screen Actors Guild - American Federation of Television and Radio Artists), le syndicat qui représente 160 000 comédiens travaillant dans le cinéma, la télévision et la radio. A minuit, les acteurs américains ont cessé leurs activités, que ce soit de tournage ou de promotion des œuvres, y compris à l’étranger.

Les négociations duraient depuis plus de quatre semaines avec les grands studios pour renouveler le contrat des acteurs. Dans une conférence de presse empreinte de colère, la présidente du SAG-AFTRA, Fran Drescher, l’ancienne star de la série *The Nanny* (en français, *Une nounou d’enfer*), a expliqué que la grève était « un instrument de dernier recours » mais que les acteurs n’avaient pas le choix devant l’intransigeance des studios. « La manière dont ils nous traitent est choquante, a-t-elle protesté. Ils crient misère, ils disent qu’ils perdent de l’argent et en même temps, ils distribuent des centaines de millions de dollars à leurs PDG. C’est écoeurant. »

L'Alliance des producteurs de cinéma et de télévision (AMPTP), qui regroupe les studios historiques (Disney, NBCUniversal, Paramount, Warner Bros, Sony) et les plates-formes (Netflix, Amazon, Apple...), a regretté les revendications « irréalistes » des acteurs. Quelques heures avant la rupture des négociations, l'association avait affirmé avoir fait des propositions significatives, notamment une augmentation « historique » des rémunérations. « Une grève n'est certainement pas le résultat que nous espérons », a déclaré l'AMPTP après l'annonce de la grève. *Les studios ne peuvent pas fonctionner sans les artistes, qui donnent vie à nos films et nos émissions.* »

La production de films et de shows télévisés devrait être au point mort aux Etats-Unis, sauf pour les productions indépendantes non couvertes par les contrats de travail conclus sous l'égide des syndicats. Déjà, la fabrication de plusieurs séries, comme *Stranger Things* ou *The Handmaid's Tale*, a été interrompue. Les observateurs prévoient une grève longue, les deux camps étant persuadés qu'ils ont l'avantage. « Vous ne pouvez pas exister sans nous », a lancé Fran Drescher, après avoir rappelé que la grève a été approuvée par 98 % des membres de la Guilde, le taux « le plus élevé de l'histoire du syndicat ».

Les acteurs sont particulièrement motivés. Craignant que leurs négociateurs ne se laissent aller à des concessions, un millier d'entre eux – dont plusieurs grands noms comme Meryl Streep ou Jennifer Lawrence – avait publié une lettre dans laquelle ils se déclaraient « prêts à faire des sacrifices » en cas de grève.

L'industrie du divertissement risque de se retrouver quasi-paralysée par le double mouvement des scénaristes et des acteurs, et les téléspectateurs, réduits à contempler des rediffusions. Le dernier mouvement de cette ampleur avait été mené par Ronald Reagan, alors président du syndicat des acteurs, en 1960. L'épouvantail était alors la télévision. Le mouvement avait duré plusieurs mois mais les grévistes avaient eu gain de cause.

Acteurs comme scénaristes entendent ne pas rester passifs face au changement de modèle économique subi par Hollywood depuis l'apparition de Netflix il y a vingt ans. Ils demandent une revalorisation de leurs rémunérations, qui stagnent alors que le streaming multiplie les rediffusions, sans que cela n'entraîne pour eux de surplus de rémunération, contrairement à ce qui se produit pour les rediffusions télévisées. De même, ils exigent que leur salaire puisse être bonifié en cas de gros succès ; or les plates-formes ne communiquent pas leurs audiences.

Ils réclament aussi des garanties concernant l'usage de l'intelligence artificielle, inquiets qu'elle puisse générer des scripts ou répliquer leur voix et leur image. « Nous sommes à un moment majeur », a plaidé Fran Drescher. *L'industrie change, du fait du streaming, du numérique et de l'intelligence artificielle. Si nous ne résistons pas, nous sommes tous menacés d'être remplacés par des machines.* »

Le PDG de Disney, Bob Iger, a morigéné les grévistes et leurs attentes « irréalistes », quelques heures avant le début du mouvement. « Cela va avoir un effet très, très dommageable pour toute l'industrie », a-t-il réagi sur CNBC, en mettant en avant les « dégâts collatéraux » qui risquent d'affecter les personnels des services généraux et plus largement l'économie, bien au-delà de Hollywood. « C'est une honte, c'est vraiment une honte », a-t-il estimé.

TEXT G

The Guardian view on the future of cinema: don't panic...

The Guardian, Fri 16 July 2021

In recent years, Cannes has become a bastion of small-c conservatism when it comes to cinema. Since 2018, organisers of the world's most famous film festival have refused to allow Netflix films to compete for its Palme D'Or, and railed against the attritional impact of streaming on traditional movie-going. If a film is not going to be shown in French cinemas, and given a three-year theatrical window before going online, it won't be seen at Cannes. This year, the festival's artistic director, Thierry Frémaux, took a veiled swipe at rival showcases such as Venice and Berlin, which have welcomed the digital disrupters. "Some festivals were first to open their doors a bit too freely," he noted testily, "to people of whom we are not sure if they actually want cinema to survive."

Such doom-mongering may be a little overdone. After a catastrophic Covid-hit 2020 for cinema, and a lost summer on the Croisette, this year's edition of the festival – which ends on Saturday – has been a stirring success. There has been critical acclaim for new films by Wes Anderson and the British director Joanna Hogg, and a stunning English-language debut from the Thai artist Apichatpong Weerasethakul. *A succès de scandale* from the Dutch director Paul

Verhoeven generated gratifying headlines. The overall quality on show more than demonstrated that cinema is “not dead”, as Mr Frémaux put it at the festival’s outset. But it is understandable that those who treasure its traditions are feeling a little insecure. As the pandemic drove populations indoors, film studios have rushed to develop their own streaming services, and many more movies are now made without a big-screen release in mind.

The prospect of subscription models dwarfing box office receipts as a source of income for studios is spooking both cinephiles and cinema chains. In a recent essay on the films of Federico Fellini, the great American director Martin Scorsese took aim at the way streaming platforms package movies up with other kinds of “content” to be consumed on demand. “The art of cinema,” he wrote, is “being systematically devalued, sidelined, demeaned and reduced to its lowest common denominator, ‘content’.” There are legitimate concerns that the need to justify subscription fees prioritises quantity over quality, and that the tyranny of the algorithm encourages the production of formulaic genre fare. But *The Irishman*, Mr Scorsese’s three-and-a-half-hour gangster epic, was a Netflix film, as was the magnificent *Roma*, by Alfonso Cuarón, which was banned from Cannes but won the Golden Lion at Venice and three Oscars.

Balance must be struck. There must always be a place for the collective and immersive nature of the big-screen experience and studios and streaming platforms should do what they can to give traditional cinemas the space to breathe and flourish; not every film needs to be immediately available online. But Spike Lee, a jury president at Cannes, was right to point out that the demise of cinema was wrongly predicted in the early days of television. As Mr Lee said: “Cinema and screening platforms can coexist.” Here’s to a successful Venice festival in September. (512 words)

What Was the Manhattan Project?

The top-secret Manhattan Project resulted in the atomic bombs dropped on the Japanese cities of Hiroshima and Nagasaki in 1945

The Scientific American, By Tom Metcalfe on July 21, 2023

The Manhattan Project was a top-secret program to make the first atomic bombs during World War II. Its results had profound impacts on history: the subsequent nuclear arms race has radically changed the political world order in ways that are still evident today.

Thousands of scientists, including theoretical physicist J. Robert Oppenheimer, took part in the Manhattan Project, often while they and their families were lodged at secret military bases in remote locations. It resulted in the two atomic bombs dropped on the Japanese cities of Hiroshima and Nagasaki in August 1945, which brought World War II to its end and probably killed more than 100,000 people.

“The Manhattan Project harnessed the enormous energy in the nucleus of the atom for the first time,” explains Cynthia Kelly, founder and president of the Atomic Heritage Foundation, a nonprofit dedicated to the history of the project and the atomic age.

One of the project’s consequences was the creation of terrifying opposing arsenals of nuclear weapons. But it also resulted in innovations from medicine to space exploration and in the science and engineering of civilian nuclear energy, Kelly says. The U.S. Army Corps of Engineers created the Manhattan Engineer District in June 1942 to hide the development of the atomic bomb during the war—hence that effort’s name of the “Manhattan Project.”

But historian of science Alex Wellerstein explains in an online overview that the project originated in an idea from the late 1930s—that Nazi Germany might build an atomic bomb, so the U.S. should do so first. Historical records reveal that Germany didn’t get far, but the prospect of a Nazi bomb was horrifyingly real. Several leading researchers worked for wartime Germany, including Werner Heisenberg. Even so, many scientists who favored an American atom bomb, including Hungarian-born physicist Leo Szilard, had fled the Nazis in Europe. had fled the Nazis in Europe.

In July 1939 Szilard and others enlisted the help of the renowned physicist Albert Einstein, then on holiday on Long Island, N.Y., to support them by writing a letter

to President Franklin D. Roosevelt. The Einstein-Szilard letter, as it’s known, changed history. It prompted Roosevelt to convene a committee to investigate the possibility of building an atomic bomb, and 1941 this group became a new committee to lay the groundwork for the full project.

These early stages involved key contributions from the U.K. and Canada. But in the end, the atomic bomb was mostly an American weapon.

After 1942 the Manhattan Project was the recognized Allied effort to build an atomic bomb. It mainly used uranium ore from a mine in what is now the Democratic Republic of the Congo, which was kept secret from the Germans.

Otherwise the project was conducted in the U.S., primarily at three top-secret towns: Oak Ridge, Tenn., where uranium was enriched until it was radioactive enough for nuclear fission; Hanford, Wash., where reactors transformed uranium into plutonium, an even more powerful nuclear fuel; and Los Alamos, N.M., where Oppenheimer directed the laboratory that designed and built experimental atomic bombs.

There were also dozens of smaller sites. And officials went to extraordinary lengths to keep it all secret.

World War II historian Alexandra Levy says most of the more than 600,000 people involved—including the thousands of scientists, engineers and technicians who worked on the weapons, as well as construction workers and the people who kept the three secret towns going—were deliberately not told their purpose.

“Most of those people did not know that the goal of the project was to build a new type of bomb,” Levy says. “Today, between the Internet and social media, it’s difficult to imagine such a large-scale endeavor remaining secret for long.”

Kelly adds, “We live in a very, very different world. Aside from one or two key senators agreeing to a blank check for the Manhattan Project, Congress and the press were kept in the dark. That would be impossible today.”

The Manhattan Project culminated in the Trinity test in New Mexico on July 16, 1945—the first detonation of a nuclear weapon. By that time, the U.S. had spent around \$2.2 billion—the equivalent of around \$37 billion today.

But the dangers of a Nazi bomb had faded, and Japan was now the designated target. Although Japan never had an atomic bomb program, the idea of stopping its aggression with a show of awful destruction became fixed among Manhattan Project leaders, science historian Wellerstein says.

He notes that Oppenheimer, then the charismatic director of the Los Alamos laboratory, twice voted in favor of the initial atomic bomb attack on Hiroshima — which killed tens of thousands of civilians—instead of a purely military target.

Oppenheimer is seen as essential to the success of the American atomic bomb project. “He contributed to some of the early scientific breakthroughs of the project,” Levy says. “His great gift was bringing together scientists, engineers and other technicians to collaborate on and solve problems.”

But Oppenheimer was also ambivalent about its results. In recalling his experience at the Trinity test in 1965, he quoted a story from the Hindu scripture the Bhagavad Gita about a prince, reluctant to kill his enemies, who witnessed the transformation of Krishna, an incarnation of the Hindu deity Vishnu: “Now I am become Death, the destroyer of worlds.”

Oppenheimer was the reluctant prince, not Krishna. “He didn’t want to kill people,” Wellerstein says. “But he knew that nuclear weapons were going to be built anyway, and he felt that he had a duty to do this horrible thing.”

See also

<https://www.britannica.com/event/Manhattan-Project>