

***Analysis of the film Threads***  
***(1984)***

# Reflections on ethics, human dignity and agricultural resilience with the film *Threads* (1984)

---

These texts (all originally published in English, now translated into French for this occasion) were initially published on Reddit and then Medium. Their purpose? To explore in depth the scenario developed in the BBC film *Threads* (released in 1984) – which recounts the consequences of a fictional nuclear conflict on England – in order to assess its realism and explore the numerous implications that are unfortunately not developed on screen. It's a kind of trilogy:

- *UK 1984–1985 : analysis of the fuel crisis and societal collapse in Threads (1984)*: a reconstruction of the events of the first year in the film leading to a major societal collapse
- *UK 1985–1994 : explaining the narrative jump in Threads (1984)*: an attempt at reconstruction to restore coherence between the scenes at the end of the first year, which depict total chaos, and the scenes ten years later, which show a country that has regained a necessary stability
- *Some deep thoughts on Threads (1984)* This is a synthesis of the two previous articles, and more general reflections on the problematic aspects of the film (and more generally, films and scientific studies on this subject) from a moral and ethical standpoint, the need for alternative narratives to the prevailing catastrophism, as well as on my personal convictions.

These articles have been translated both manually and automatically, and contain some translation imperfections which are being corrected (some sentences written in English are a little difficult to translate into French).

Since the articles were originally published separately, there is sometimes repetition or redundancy (maps, discussions, etc.) because the topics were addressed separately or together, sometimes across multiple articles. I have decided to keep the articles as they are to encourage a non-linear reading experience, rather than reading from beginning to end of the page.

The film *Threads* is, in its own way, a sacred text, like the Hebrew Bible. A profoundly nihilistic, secular, and hopeless text; but a sacred text nonetheless, in that it represents for many the pinnacle of realism regarding the consequences of a hypothetical nuclear war. Reality is unfortunately (or fortunately, depending on your perspective) more complex; and perhaps even unexpected. How does one survive such an event? How does one rebuild something meaningful? What agricultural and societal model would emerge after such an event?

The film (which is ultimately just a gateway) served primarily as a springboard for me to explore issues that extend far beyond its scope: agriculture, resilience, human dignity, ethics and morality, governance... Issues that concern our societies as they face the risk of major disruptions, both past and future. This work ultimately allowed me to draw heavily on all the skills I use on this website: geography, source analysis, sociology at times, historical

reading... Skills that are ultimately common to the fields of exegesis and biblical studies, but applied to a film unrelated to theology.



We will analyze the text as we would any passage from the Hebrew Bible on this site. We will simply try to understand its meaning, its geographical setting, extract its message, compare it with our knowledge of other subjects, grasp the overall coherence of its world, and sometimes determine what would be needed on a material level (agricultural, human, organizational, etc.) for the whole to be credible, plausible, and realistic. If a component seems crucial to the coherence of the narrative, we will propose it. This is the case in this article, with its numerous discussions on agriculture.

How can a film presented by the entire scientific, academic, intellectual world and even the British Film Institute as the most "realistic" and scientifically supported, collapse under critical examination of its own scenes, geographical/logistical constraints and narrative choices?

At the cost—ironically—of a complete (and unintentional) reorientation of its age-old, nihilistic message into a modern fable about the rigidity and failure of institutions, resilience and human dignity, agricultural renewal, and human continuity. Confusing :) Unfortunately for the film and those who have gravitated around it for decades without questioning it. Fortunately for us, and perhaps for the survivors at the end of the film.

Unfortunately, 'Threads' realism quickly falters when one moves beyond the emotional register (which is rather debatable, by the way) to evaluate the film according to its essential marketing criteria: realism, scientific credibility, and the plausibility of what is presented on screen. When crucial questions arise, such as "What coordination took place after the attack?", "What about gasoline in the first year?", "Why such societal disintegration in less than a year?", "What could Ruth and Jane have eaten/grown during the unexplained narrative jump in the film?", or even "What form of agriculture could have emerged to support the final scenes?", the film falters because its narrative offers no answers. It is therefore our geographical, agricultural, societal, and historical knowledge that must provide the answers.

Before going any further, we'd like to address some of the "strawman arguments" and common misconceptions surrounding this film. "It's the most realistic film, therefore it's realistic," "It's an '80s film, but it's still realistic," "You shouldn't criticize a film on such a serious subject as nuclear war," "You're missing the point of the film by questioning its realism"... Our answer is... Yes... and no :) To-do list:

It's the most realistic film, therefore it is realistic.	
If the film is realistic, it must prove that it is.	

<b>UNITED KINGDOM 1984-1985: ANALYSIS OF THE FUEL CRISIS AND SOCIETAL COLLAPSE IN THREADS (1984)</b>	<b>5</b>
<b>UNITED KINGDOM 1985-1994: EXPLAINING THE NARRATIVE JUMP IN THREADS (1984)</b>	<b>44</b>
<b>SOME DEEP THOUGHTS ON THREADS</b>	<b>112</b>

---

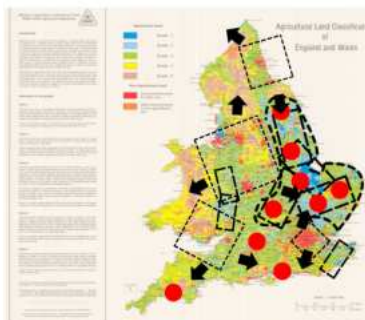
## United Kingdom 1984-1985: analysis of the fuel crisis and societal collapse in *Threads* (1984)

*Titre original - UK 1984-1985 : analysis of the fuel crisis and societal collapse in Threads (1984)*



### THREADS' GEOGRAPHY – Wales and England – 1984-1985

-  Key urban areas destroyed (airburst)
-  Key military targets areas (groundburst)
-  British cereals plains
-  Main refugees roads
-  Key agricultural areas : harvest and remediation



*I wrote this article to, in a way, "walk" in the footsteps of the authorities in the first part of the film, the year after the nuclear attack on the United Kingdom. Using gasoline as a lens was important because it is an extremely valuable resource, essential to the smooth functioning of any*

*modern economy. Within the context of an analysis of the film, this resource will allow us to answer a crucial question: are the causes of the collapse linked to a depletion of resources or to some other factor?*

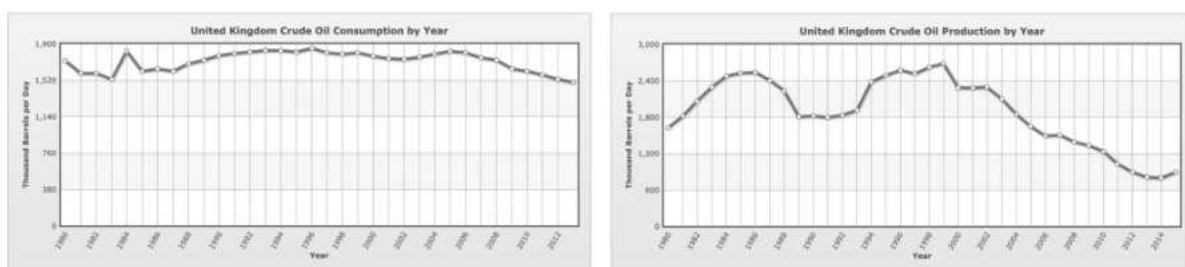
A year after the nuclear attack in the film *Threads*, it's implied that fuel is no longer available, given that we see people working in the fields with hoes, without tractors or combine harvesters. Since gasoline was apparently rationed and used only when absolutely necessary, it's interesting to consider how the entire fuel supply could have been depleted in a year in the UK, as depicted in *Threads*, but also in the event of a nuclear war causing major disruption.

Important notes on what follows:

- The conversion rate used in the article is 1 liter of fuel = 0.006 barrel
- The document assumes that the authorities will ration the use of available fuel to make it last at least a year.
- And regarding the exact year, I choose 1984 (the year the film was released)

### ***British pre-war contingency plan***

We know from UK economic data from 1983 that the country was capable of producing over 2 million barrels of oil per day and consuming between 1 and 1.5 million per day. I will use the higher estimate for the calculations in this article. We also know from the recent release of confidential documents that the UK stockpiled numerous products during the Cold War, such as fuel, food, and medicine.



On the left, the UK's daily consumption and on the right its production (Source: INDEXMUNDI)

It is difficult to accurately quantify the quantity of products stored due to the vague nature of some documents, but we know that the United Kingdom in 1984 (thanks to the website) *British Underground* which I used extensively for this article: <https://www.subbrit.org.uk/features/struggle-for-survival/>) could perhaps have stored – in times of crisis – quantities of oil representing 76 days of peacetime use. The website isn't very precise about the exact volume, so we'll start with the UK's daily consumption in barrels, or 114 million barrels of oil (crude or refined). For those who don't know, there are two ways to store fuel:

- Crude oil: it can last for years, but cannot be used immediately without refining.
- Refined fuel: it can last 6 months to 1 year, but is available immediately and easier to store



Booklets labeled "Protect and Survive" were likely distributed to the population in the film.

## ***Fuel storage and availability in the film Threads***

The British government in the film *Threads* likely intended to store the majority of this oil as refined petroleum in preparation for its contingency plan, but this isn't impossible given the haste with which some barrels are crude oil (say, 10% of the total). In *Threads*, the crisis leading to nuclear war begins on May 5th and ends on May 26th when the bombs fall on the UK, leaving the government a short 20-day window to stockpile fuel. Several factors come into play if we want to align ourselves with the narrative presented in *Threads*:

- Violent protests against the war
- City dwellers leaving the cities
- Soldiers are being deployed as reinforcements in Europe
- No (or very little) fuel rationing is applied in the United Kingdom
- Military vehicles have been spotted taking up positions across the United Kingdom.
- Emergency vehicles are being moved across the UK to secure their location
- Many fighter jets were used on May 26 when the Soviet Union launched its attack.
- A negligible amount of fuel was imported due to the international crisis
- Even though the conflict is overshadowed by the international crisis, the United Kingdom remains involved in the Troubles in Northern Ireland.
- The British miners' strike has been ongoing since March 6th.

The last two points are very specific to the United Kingdom, but are not addressed in the film. They will not be considered when explaining the events on screen. The quantity of 76 days' worth of oil corresponding to peacetime use is highly improbable in this context. It is more likely that the United Kingdom had only 20 days' worth of oil at the end of the day on May 26, or 30 million barrels of oil (either in special storage facilities or through the control of service stations), but by the end of May of the following year, it would all have disappeared.

The attack suffered by the United Kingdom on the morning of May 26th was extremely brutal: nearly 210 megatons of nuclear weapons were potentially raining down on the country. With an average of 1.5 megatons, this represents 140 bombs. One can only guess why the Soviet Union launched its attack.

- The crisis may have reached a point of no return, meaning that the Soviet Union's leaders were unable to back down without incurring enormous political costs both domestically and internationally, thus pushing them toward a desperate escalation. The escalating riots in East Germany mentioned in the film support this view. Retreating after all the deployments of forces in East Germany would likely have been too costly for the Soviet leadership, as it had come at the expense of civilians. The Soviet economy was in turmoil during the 1980s, and this buildup of the military apparatus would have led to further shortages and sacrifices.
- Driven by its ideology—an extreme scenario, but one that fits within the film's logic, which doesn't justify the attack—the Politburo concluded that the loss of at least 75 million people in the Soviet Union was acceptable as part of a massive and coordinated attack plan, if that was the price to pay for a hypothetical victory against the United States and the continued functioning of the Soviet Union. This attitude lies somewhere between madness, cold calculation, and genuine belief.
- It is also plausible that they reacted to a minor skirmish or provocation (even by mistake), and that they decided to execute the plan to invade West Germany as far as the Rhine.

- The fact that nuclear bombs were used during the invasion of Iran depicted at the beginning of the film may have led to a "normalization" of the use of nuclear weapons within the Soviet military.

The fact is, we'll never know. In the scenario depicted in the film, the Soviets first created an EMP by detonating a high-altitude bomb over the North Sea to completely cripple communications in the UK and Western Europe. The film doesn't show it, but what likely happened simultaneously was that Soviet and Warsaw Pact troops (perhaps 0.5 to 1 million soldiers) would cross the borders of East Germany into West Germany, pushing all the way to the Rhine. This was part of a plan called "Seven Days to the Rhine," devised by Soviet leaders during the Cold War.

The first targets will then be British and NATO military bases, followed by strategic infrastructure: ports, power plants, airports, refineries... The following figures are taken from a work published on Medium under the title "[The consequences of a nuclear war : case study on 80s UK](#)" Therefore, we can potentially list:

- 10 freight handling ports
- 12 international or regional airports
- 10 power plants
- 40 military infrastructures (bases, radars, communication centers...)

The bombings then began by targeting all major cities and urban centers. London, of course, but also numerous industrial, economic, and port cities; some with multiple functions. These included:

- |  |  |
|--|--|
| ● Manchester (textile)                 | ● Belfast (shipbuilding and textiles)  |
| ● Birmingham (automobile)              | ● Bradford (textile)   |
| ● Liverpool (major port and industry)  | ● Stoke-on-Trent (a town specializing in fine ceramics, but it can still be considered a manufacturing centre) |
| ● Glasgow (shipbuilding)               | ● Cardiff (steel)  |
| ● Leeds (textiles and engineering)     | ● Portsmouth (Royal Navy port)   |
| ● Sheffield (steel and steel products) | ● Plymouth (shipbuilding)  |
| ● Newcastle (shipbuilding and steel)   |  |
| ● Nottingham (clothing and medicine)   |  |

For London, we could have these figures

- 4.43 million dead
- 13-19 megatons

For the industrial and economic cities mentioned above, this would potentially mean:

- 10 million dead
- 31-45 megatons

We can also mention more symbolic cities like Oxford and Cambridge. Two major educational centers and where most of Britain's elite are trained. The figures:

- 0.22 million deaths

- 1 megatonne in total

What happened next was inevitable due to the nature of a nuclear exchange. It became an all-out exchange with numerous irrelevant targets hit to maximize destruction within the country, sometimes without justification: Leicester, Gloucester, Swansea... The final bombing figures are:

- 5 to 6 million dead
- 15-19 megatons

The cities potentially affected would be:

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>● Southampton</li> <li>● Bristol</li> <li>● Leicester</li> <li>● Brighton and Hove</li> <li>● Edinburgh</li> <li>● Bournemouth</li> <li>● Sunderland</li> <li>● Kingston upon Hull</li> <li>● Luton</li> <li>● Peterborough</li> <li>● Swansea</li> <li>● Reading</li> <li>● Aberdeen</li> </ul> | <ul style="list-style-type: none"> <li>● Warrington</li> <li>● Norwich</li> <li>● Swindon</li> <li>● Southend-on-Sea</li> <li>● Dundee</li> <li>● Ipswich</li> <li>● Cambridge</li> <li>● Oxford</li> <li>● Gloucester</li> <li>● Londonderry</li> </ul> |
|---|--|

We can also potentially add:

- York
- Derby
- Crewe
- Blackpool
- Blackburn
- Exeter

Depending on the estimates, the potential number of immediate casualties could range from 20 to 29 million deaths. Here is a simplified diagram of the potential bombings. What might May 26, 1984, have looked like in the film about the European theater of operations? Here is a map:

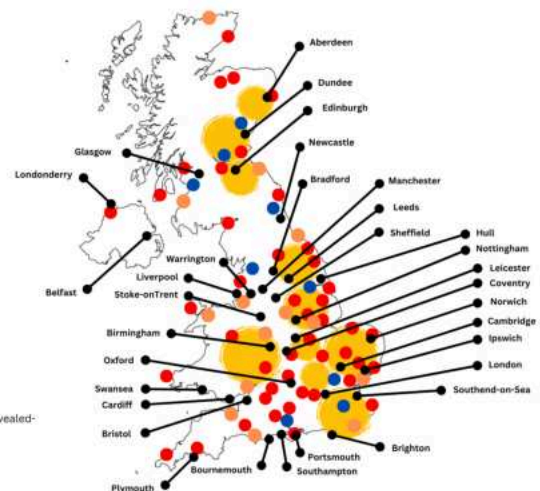
### UK MAY 26TH

#### “STRIKES”

- Key urban areas destroyed (airburst)
- Key military targets areas (groundburst)
- Oil refineries areas
- Key power plants (nuclear or conventional)
- Key agricultural areas impacted

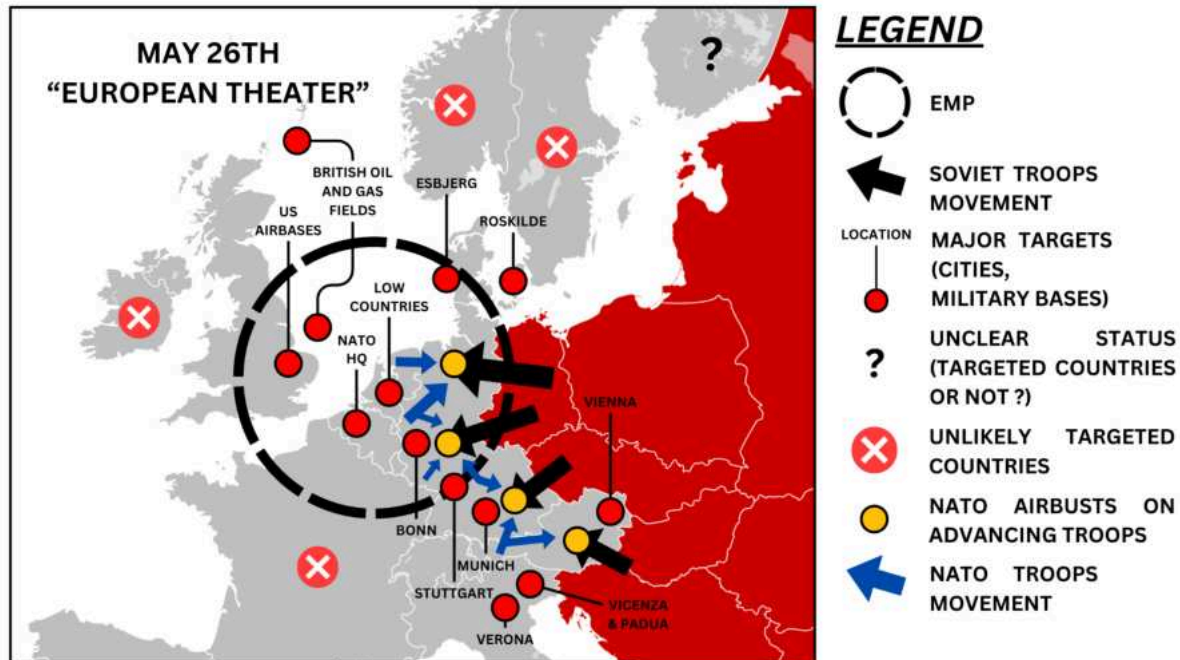
c. 150 km

Sources:  
 • Military bases : <https://www.robedwards.com/2014/06/revealed-the-106-cold-war-nuclear-targets-across-the-uk.html>  
 • Powerplants : [Wikipedia, powerstations.uk](https://www.wikipedia.org/wiki/powerstations/uk)  
 • Agriculture : [Wikipedia](https://www.wikipedia.org/), DEFRA, AHDB



The targets in red (logical atomic bombings) are cities identified in the limited public information available about the "Seven Days to the Rhine" exercise. Also included are NATO headquarters in Brussels, US military bases in East Anglia, and North Sea oil and gas fields.

The EMP (bold dotted circle) over Western Europe and the UK is also identified. The Soviet advance is indicated by black arrows. A question mark raises the question of a possible invasion of Finland. Red crosses mark countries not considered serious targets: France, Ireland, Norway, Sweden, etc. Blue arrows indicate NATO troop movements, and yellow circles represent atomic airbursts targeting Soviet troops.



Five factors must be considered to explain the rapid depletion of fuel:

1. Some storage facilities are likely no longer accessible following the nuclear strikes (roads are destroyed, filled with abandoned vehicles, radiation, EMPs, direct targets, etc.). If we try to estimate the amount of fuel lost, taking into account the extent of the destruction indicated in Threads, it could represent 30% of the stockpile
2. Of this remaining stockpile, we stated that probably 10% was crude oil. Given the scale of the destruction, we can assume that the crude oil was unusable and irrecoverable due to the destruction of numerous refineries.
3. Since most of the oil was stored as refined petroleum (gasoline, diesel, etc.), the shelf life of this refined petroleum was 6 months to 1 year, but only under proper storage and transport conditions. Due to the poor storage and transport conditions following the nuclear war, it is reasonable to assume that up to 20% of the stockpile will gradually become unusable and even dangerous for vehicles in the coming months. The prolonged drop in temperature due to the nuclear winter could lead to gasoline crystallization, rendering the fuel unusable unless additives are added, which is unlikely. The lack of proper storage will result in oxidation and moisture in many fuel containers, making the use of this fuel dangerous for vehicles as it could clog engines.
4. Finally, it is also important to consider that a large portion of the fuel will be lost due to leaks, mismanagement, losses, and theft. It is reasonable to assume that 10% of the fuel stock will be wasted at some point.

This leaves us with an actual stockpile of 9 million barrels on day 0 following the nuclear attack, meaning 21 million barrels are lost and unaccounted for. Therefore, 70% is unusable from the outset or gradually becomes so. Based on pre-war UK daily fuel consumption, this

represents 6 days of peacetime use. With careful rationing, this fuel stockpile could last a year with only 25,000 barrels per day. For each period, a final insert explains what had to be done to justify the possibility of a substantial population (as depicted in the film), namely 4 to 11 million survivors.

**"Nuclear fallout" from May 26, 1984 to June 9, 1984**

*...Radiation levels remain dangerous. Residents of Liberation Band A—that is, Woodseats, Dore and Totley, and Abbeydale—should not remain outside their shelters for more than two hours a day...*



Following the nuclear strikes, people are advised to stay at home for at least two weeks due to radioactive fallout. Because of the danger of this radioactive fallout, very little movement of vehicles (military, firefighters, etc.) is likely to take place across the UK, but some fuel may already be extracted from stocks to run numerous generator engines across the country in bunkers (for the government and regional government headquarters or RSGs). *Regional Seats of Government* (in English), hospitals, military bases... and also to maintain critical infrastructure such as communication centers. Approximately 1.6% (about 140,000 barrels) of the fuel stock is used over two weeks, or 10,000 barrels per day.

We would like to clarify an important point that we believe is crucial for what follows: what level of governance was in place during this first year of the film? According to British contingency plans, in the event of a major crisis, local authorities (particularly the Regional Security Groups - RSGs) were to assume the bulk of the responsibilities and operate almost autonomously. Beyond what might or might not have happened in reality, we have reservations about this theoretical governance system:

- British regions, like everywhere else, are unequal in terms of agriculture, demographics, fuel availability, and so on. Therefore, a simplistic application of this logic could lead to absurd situations, such as a region with enormous agricultural potential unable to produce harvests due to a lack of fuel because no national mechanism is in place. Similarly, a region with no agriculture would be expected to feed its population without a national mechanism either. This doesn't seem realistic in practice, but it could perhaps be theorized in government plans.
- The film will show us something interesting: shortly before the harvest, the members of Sheffield City Council—responsible for the urban area and surrounding towns—die buried under the rubble of their shelter. Yet, a number of things are organized above ground, probably in Sheffield and the surrounding area. We must therefore infer that a national governance structure remained in place to coordinate actors in case one of them failed.
- Several things in the film are organized on what we can assume is a national scale (or at least a broader regional one): a rationing mechanism, which we will discuss later, and especially a mechanized harvest (announced by a government message, the last in the film). Both of these mechanisms depend on resources that must be coordinated: food and...fuel. And the harvest, for its part, requires an effort that must be

coordinated and planned on a much larger scale than the county or the simple RSG, for a simple reason (which we will discuss in detail later): British agrarian geography, which implies concentrating efforts and redistributing the fruits.

Attack plus 1 week  
Food stocks controlled  
by central government  
representatives

Consequently, we tend to view the efforts of this first year more on a national than a regional level. This is further evidenced, for example, by this subheading, published a week after the attack, which reports that representatives of the British central government are being sent across the United Kingdom to take control of food stocks in different regions of the country.

For example, a 300 kW diesel generator consumes 70 liters per hour (full load). A more powerful generator, for example 600 kW, potentially consumes 150 liters per hour (full load). This would average out to 110 liters per hour. If the generator runs all day, this equates to 2,640 liters per day, and 36,960 liters for the two weeks following the fallout, which



corresponds to 232 barrels. In 1984, the UK had perhaps fewer than 250 strategic generators across the country (this number is totally unknown to be transparent - probably even less than half that figure - the idea being more with this value to create some kind of constraint in our estimation of gasoline consumed; the idea is also to take into account the possibility of highly variable capacity), which would have represented

70,000 barrels for the two weeks or 5,000 barrels per day (or 20 barrels per day per generator if we base ourselves on the figure of 250 generators).

To be completely transparent about what follows: the exact consumption ratios or the number of units (bunkers, vehicles...) will not be decisive in understanding what happened after the attack, even if they provide a kind of framework for understanding the events on screen.

What remains available is likely being used by military forces deployed across the country (securing food depots, warehouses, gas stations, etc.) and conducting small-scale operations. The stockpile now stands at 8.8 million barrels after the curfew.

Key points of the period:

- Continuity of centralized governance is necessary, even if reduced (at a minimum, through the dispatch of emissaries on site to coordinate the necessary actions).

- A necessary deployment of forces, even a minimal one, at key points in the country (service stations, fuel depots, food warehouses, etc.) is required to guarantee logistical continuity.
- The initial assessment of national infrastructure to coordinate future reconstruction efforts has begun.

***"Attempt at reconstruction, exodus from the cities and pre-harvest" June 10, 1984 to September 22, 1984***

The three and a half months following the curfew and leading up to the harvest saw many events unfold in the UK. These events were closely interconnected and did not occur sequentially. The film's scenes left things ambiguous, but it can be inferred that this phase lasted three and a half months, since the first post-nuclear harvest began four months after the nuclear attack, preceded five weeks later by a growing exodus from major urban centers to smaller towns like Buxton and the surrounding countryside, and then by the need to organize a pre-harvest. In those three and a half months, the stockpile was depleted by 2.08 million barrels, or 23.5% of what remained. This equates to 20,000 barrels per day.

*...All able-bodied citizens—men, women, and children—should report for reconstruction work, starting at 8:00 a.m. tomorrow morning... The only viable currency is food, given as a reward for work or withheld as punishment... A survivor who can work receives more food than one who cannot, and the more deaths there are, the more food remains for the others...*

Two weeks after the attack, the British government contacted residents by radio and ordered them to register at designated points to begin reconstruction. At this point, the narrator introduces a number of details concerning an important element: food, and in particular its distribution. Seemingly innocuous, this information (never elaborated upon in the film itself) will nevertheless have unforeseen chain reactions, which I will discuss later. The mechanism described by the narrator does not resemble a classic rationing system. It is, in fact, a rather disturbing description. We will call this mechanism "work-for-food." The conceptual framework proposed by the film is, to say the least, strange. It describes a food rationing system that operates according to these principles:

- *Money has lost its meaning since the attack*
- *The only viable currency is food.*
- *[Used as]reward for work or deduction as punishment.*
- *A survivor who can work receives more food than one who cannot.*
- *The more deaths there are, the more food there is left for the others...*

In my opinion, it's important to be completely honest about this mechanism: it's nothing like classic rationing. It's more reminiscent of a concentration camp. Should we understand this description as evidence of the narrator's (and the film's) cynicism, or as a tangible reality within the film's universe? Since *Threads* never explains its premise, we must consider it a tangible reality within its world. And this will be confirmed by the scenes in the film itself.

From a purely historical perspective, it is possible that the British government may have made provisions to temporarily replace currency with a system of barter. This hypothesis is described in the 1982 publication *\*War Plan UK\**. Duncan Campbell But clearly, our reading of the passages seems selective.

Thus, on page 127: *"At the same time, the planners did not lose sight of their fundamental values. In the most remarkable of the circulars addressed to local authorities, Briefing Material Journal Wartime Controllers (53/76), the Home Office set out its views on the post-nuclear economy:*

*Collapse of the monetary economy:*

*A large-scale nuclear attack against this country would completely disrupt the banking system upon which the entire monetary economy rests. Even a small-scale attack on London and the sites of the main facilities of the major clearing banks would have a similar effect... Money, in its current form, would become meaningless. The circular proposed that bartering and, for the government, the exchange of food or clothing, should fairly quickly replace the use of money "as an element of the economy," a means of purchasing goods or rewarding services.*

*He then pointed out that:*

*The re-establishment of a new monetary system as quickly as possible would be an essential element of the national recovery policy. This could take a year or more, depending on the extent of the attack, and it cannot be assumed that the old currency will be bought back, except perhaps at the cost of a considerable devaluation of its former purchasing power (emphasis added).*

*The circular also explains that regional commissioners will receive assistance from "financial advisors from the Treasury and the private sector"."*

Personally, the fact that the currency is compromised doesn't shock me. However, the mechanism is presented in this book as a moral and ethical aberration, while also emphasizing that plans were known to return to normal. The author of the book seems to miss the point of the issue and writes this comment, which we find lacking in seriousness: *These glimpses into official priorities for a post-nuclear future stand in stark contrast to the lack of thought in other areas. In contrast, on topics such as public order, the plans are well-developed.*

The author doesn't seem to know (or understand) that a contingency plan is designed to keep a society functioning. Money (an essential foundation of any modern society) is an issue that any contingency plan must address, just like everything else: rationing, agriculture, order, etc. The film presents a particularly problematic interpretation of it.

And on page 153 I quote: *"Of course, many "crimes" committed in peacetime would cease to matter, "in a time when the primary objective would be survival." The problem of non-capital punishments after a nuclear attack is quite delicate, and the Home Office suggests forced labor—"communal labor"; starvation—"restricted rations"; and ancient medieval stockpiles—"exposure to public disapproval.""*

Although discussing rather exceptional methods (even if objectively not very different from other historical periods), this passage deals with crimes and offenses. It doesn't establish a link—made by the film—between a rationing system and the economy of death described by the narrator, in a concentration camp-like fashion. What is presented on screen seems to have far more serious implications than urgent measures decreed by the authorities. We are, after all, talking about a system where death almost becomes a sought-after advantage, as

evidenced by this chilling statement. "...the more deaths there are, the more food there is left for the others..."

The author's bias on his own subject must be mentioned, and the summary provides the best proof of this: "*Secret civil defense plans include closing roads to refugees, interning protesters and pacifists, and seizing food and fuel supplies. There will be no rescue or medical assistance for those trapped and dying as a result of a nuclear attack. Millions will die in areas targeted by nuclear attacks as a direct consequence of government civil defense policies.*"

This is an imprudent premise, given that the book itself powerfully and meticulously recounts the intensive discussions held by the government of the time on all subjects, however difficult they may be, and on matters of collective survival. But the most glaring irony for the author lies in his conspiratorial postulate of a government seeking to orchestrate a disguised genocide in the event of a nuclear conflict, under the guise of contingency plans, while simultaneously devoting over 400 pages to demonstrating the exact opposite, since the British government appeared capable of discussing all the issues. The fact that difficult subjects were raised (such as the need to control refugee flows, for example, to avoid jeopardizing harvests, as one might assume in the film) is, in fact, a necessity to guarantee the common good.

Our fear: that the film followed this pattern. The rationing system introduced by the film contrasts sharply with the common sense and actions of the government in the days leading up to the attack.

- Hospitals are being evacuated to treat the wounded after the attack.
- Emergency vehicles moved to a safe location
- Broadcast of the "Protect and Survive" television commercials
- Control of priority routes across the country to facilitate transport
- Sending the necessary instructions to the local authorities
- Arrest of political agitators (A necessity in the event of a serious crisis; France had arrested sympathizers of the German-Soviet pact in 1940 before the Battle of France, England had placed Oswald Mosley under house arrest during the Second World War... realities far removed from Duncan Campbell's conspiracy theories)

As previously stated, we will have to rely on the narrator's assertions. But let's return to the main subject: the beginning of the reconstruction of the cities.

This decision will require the British government and the RSG to move stored materials for this task to the devastated cities. Soldiers will also need to be deployed to assist local police forces and enforce martial law. Some strategic industries will potentially be restarted if possible, bearing in mind that after a nuclear attack, the word "strategic" can encompass many things, such as a field bakery to feed soldiers, survivors, and workers.

Regarding the reconstruction of cities, one issue seems particularly crucial: water. This point is never mentioned in the film (unlike reconstruction or agriculture), but it is a vital issue because the population must have access to clean drinking water, and wastewater must also be treated to prevent river contamination and epidemics. This issue concerns the entire country, but especially urban areas that suffered massive destruction. According to British contingency plans of the time, the population would have been asked to store water at home. We can assume (albeit marginally and on a limited scale) that a small quantity of drinking water was stored by the authorities (tanks, bottled water, etc.), a palliative and temporary

solution. While awaiting the (necessary and mandatory) reactivation of certain water treatment infrastructure (at a minimum, treatment plants), emergency solutions will have to be implemented. Several exist for this purpose:

- Although problematic, rainwater can be collected in cisterns and then treated.
- Water from rivers, lakes, wells, etc., can also be used when possible.
- As a last resort, stagnant water

There are several "raw" techniques for performing emergency purification/treatment:

- The most well-known method involves boiling water for several minutes, but this requires a heat source.
- The second method involves using purification tablets, the quantity and availability of which in the UK during the 1980s is difficult to ascertain.
- The third method involves using highly diluted bleach (2 to 4 drops per liter of clear water)

Regarding wastewater treatment, this is a major public health issue (particularly what is euphemistically called "black water"). If the sewer system is compromised, it is imperative to organize:

- The implementation of dry latrines where possible, and not the disposal of this waste in nature or in a river, nor its burial in the ground
- The implementation of rudimentary septic tanks

All these solutions are obviously palliative, and will not compensate for the need to restart a sewage system (or at least collective dry latrines in the worst case) and especially the establishment of a functional drinking water network (even with rationing/distribution via bottles/jerrycans/tanks).

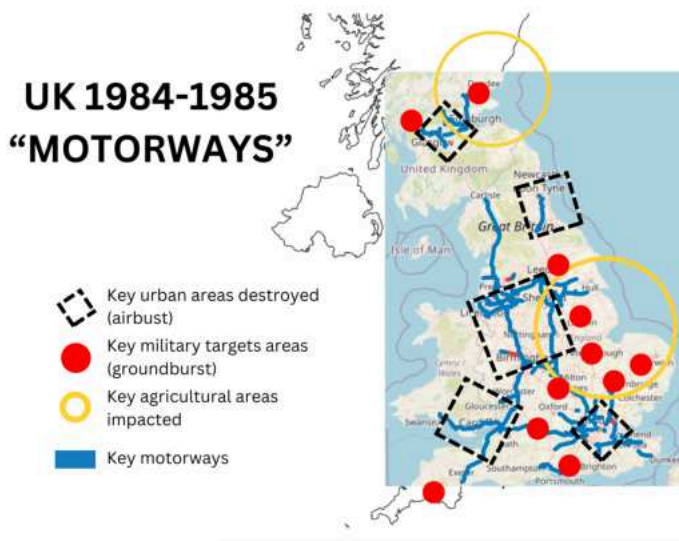
Military operations will be the top priority. Soldiers will be tasked fairly quickly with crowd control and arresting looters as urban food depots are depleted. Transportation (primarily by road) will be complex due to the destruction. If we assume that 8,000 barrels per day are now being used by generators across the country for reconstruction efforts and restarting critical infrastructure, that leaves 12,000 barrels per day. Even with the scale of the destruction and EMPs, it is highly unlikely that any vehicles will survive. The film also shows combine harvesters, tractors, and even an airplane after the nuclear attack. The notion that all vehicles suddenly became obsolete is therefore unfounded. Based on historical data covering 20 million passenger cars in the UK in the 1980s, we can imagine that 1 to 2% of pre-war vehicles, i.e. 200,000 to 400,000 vehicles, with a median of 300,000 vehicles (mostly civilian vehicles, but also military and emergency trucks, agricultural vehicles) are still operating throughout the UK, but in critical condition.

Based on the fact that approximately 20 million people (or 35% of the pre-war population) died immediately as a result of the nuclear attack (according to my own estimates from previous work on the subject available [here](#) (on Medium)), leaving 36 million survivors, this means we'll have one vehicle for every 120 people, putting a lot of strain on what's left and leading to rapid overuse; compared to one vehicle for every 3 people before the war. But as with fuel, there will be a significant gap between the theoretical value and reality.

To estimate what was needed to run the cars, I took two iconic vehicles from the UK in the 80s: the Vauxhall Cavalier and the Humber Pig. The former consumes about 8 liters per 100 kilometers, while the latter consumes about 20 liters per 100 kilometers (peacetime use).



Two Humber Pigs in action in Northern Ireland (archive footage from Bloody Sunday in 1972)

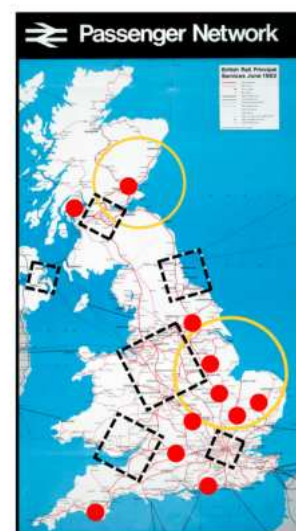


This translates to 0.05 and 0.125 barrels per day, respectively. The first step is to calculate a weighted average. I believe that of all these vehicles, 75% were personal cars and 25% were military/emergency/transport vehicles. This gives us 0.068 barrels per day. The vehicles will be subjected to critical conditions for a long time: overuse, stop-and-go traffic, overloading, detours...

Let's say these four problems individually represent 30%, 25%, 50%, and 30% of the

initial consumption, or 0.0204, 0.017, 0.034, and 0.0204 barrels per day. Adding them together, this represents a consumption of 0.0918 barrels per day. Now, the value of a barrel per day is 0.1598.

Numerous other factors will likely contribute to this increase: poor road conditions, mechanical deterioration, and declining fuel quality. Let's say these three other problems individually account for 35%, 30%, and 50% of the initial consumption rate, or 0.0238, 0.0204, and 0.034 barrels per day, respectively. These difficulties could total 0.0782, with a present value of 0.238 barrels per day.



Initially, the base consumption figure represented peacetime use over short distances. Longer distances (combined with the aforementioned constraints) can double peacetime usage. Adding the initial consumption rate

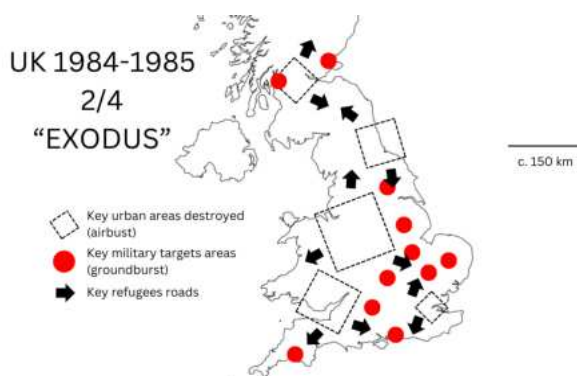
to the previous value, we arrive at 0.306 barrels per day per vehicle, or approximately 48 liters.

In addition to the challenges mentioned earlier, this figure (however high) must also take into account the likely disparity in the vehicle fleet (larger/smaller vehicles, poorly maintained vehicles, etc.) and the probable emphasis on military/heavy trucks. We must also consider the obvious logistical problems that will arise with this fuel, including the likely absence of functioning service stations in many parts of the UK. This is illustrated by this map of British motorways from 1983 combined with the list of potential targets: the motorway network was likely no longer operational after the attack of May 26, 1984. The majority of motorways passed through or in the immediate vicinity of the large conurbations and urban areas destroyed after the attack—areas already facing significant logistical and humanitarian challenges. The cost of transport operations could only increase in this context, as the use of secondary routes was not only a necessity but probably a requirement in many areas. The British rail network is probably in a sorry state, as evidenced by the intersection of the map of urban and military impacts with this map of British railways from 1982. All this can only increase the logistical constraints for the authorities in our context.

As in our previous discussions about generators, these figures primarily serve to "impose constraints" on our hypothetical inventory (a way of thinking similar to planners who prefer to add up even theoretical or unlikely constraints, or when making financial forecasts where losses are sometimes overestimated to find the break-even point under precarious conditions) and to provide a framework for our analysis of the year following the attack on the United Kingdom. And as previously stated with generators, the exact consumption ratios or the number of units (barrels, vehicles, etc.) will not be decisive in understanding what happened after the attack.

Operating 300,000 vehicles will cost 92,000 barrels per day, whereas, due to fuel restrictions and logistical problems in post-nuclear war Britain, the available value is closer to 6,000 barrels per day. This means that only 20,000 vehicles will be used in the UK (0.30 barrels per day/vehicle). The ratio is effectively 1,800 people per vehicle.

Even though the film *Threads* doesn't show it, doing otherwise is impossible, due to the crucial need, during reconstruction, to restore transportation, logistics, military operations... This leaves 6,000 barrels per day as a buffer stock to account for the uneven use of fuel in these troubled and rapidly changing times; and the rising cost of pre-harvest fuel during this period.

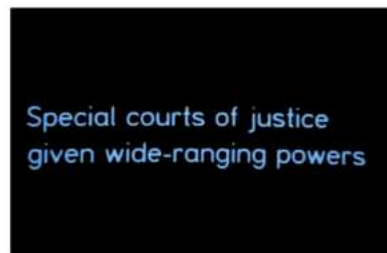


Key points during the mid-period:

- Establishing a census of the available vehicle fleet and requisitioning available/functional equipment
- Establishing even precarious logistical flows/bridges between key regions of the United Kingdom
- Mobilizing the population for reconstruction work

*...A growing exodus from the cities in search of food. It is July...*

Due to the depletion of urban food stocks, we witnessed an exodus from the cities starting five weeks after the attack, with millions of desperate and starving people moving to smaller towns and rural areas in search of food. But this must be understood in light of the mechanism introduced earlier in the film: "work-for-food." If the food depots are nearly empty, should we also understand that the system implemented by the narrator is beginning to show its first signs of weakness? The system described above doesn't seem to completely deprive the population too weak or vulnerable to work of food. However, it's possible that only the bare minimum is being provided, leading to migration from the cities to the countryside. Given the narrator's description of the rationing system in place, injustices are likely rampant. Moreover, what appears on screen signals the first failures of the policy in place, as evidenced by the increasing arrests of looters and the establishment of courts-martial barely four weeks after the nuclear attack on the United Kingdom.



Shortly before dying in their bunker, the Sheffield district officials in the film have one last interesting discussion about food. The supply difficulties are real. The medical officer's proposal is unequivocal: *"We will have to reduce their rations. I've thought about it. One thousand calories for manual laborers and 500 for the others."*

According to British historical data from 1983, 44 million people lived in cities and 12 million in the countryside.

In *Threads*, many people leave the cities before the nuclear war. Let's say 2 million across the UK; we now have 42 million people in cities and 14 million outside.

If all 20 million deaths from the nuclear attack had occurred in cities (representing 47% of the urban population), there would still be 22 million people living in cities and 14 million living outside of them. Let's say the exodus began slowly after the curfew ended on June 10, 1984, increased significantly five weeks after the attack, and ceased completely once the harvest season began.

On average over 104 days, this represents 211,000 people per day. The exodus during the Battle of France (May 10 to June 25, 1940, a period of 74 days) saw 10 million people (out of 40 million) fleeing the advancing German army, or 135,000 people per day. Many of these people leaving the cities died en route.

The title card appearing a few seconds before the harvesting scenes indicates that between 17 and 38 million people died as a result of the nuclear exchange (explosion, heat, fallout, etc.). That's a huge number. The figure is significant (38 million people represents 70% of the pre-war population). Given the total chaos, we can deduce that the army will be urgently deployed to quell the exodus.

Some engine-generators across the UK are starting to break down, city reconstruction is stalling, and fuel is being rerouted to manage the crisis: planes and helicopters to track

people's movements and ask refugees to turn back, roadblocks to stop or limit the influx of refugees into the countryside...

Given that the British planners of the nuclear war contingency plan were (to say the least) skeptical about providing aid to refugees, one can imagine how violent the exodus was. But the authorities would face harsh realities: letting all those on the road die while also flooding the countryside, or maintaining order and "managing" the exodus.

## Planning for survival

### Stay at Home

Your own local authority will best be able to help you in war. If you move away – unless you have a place of your own to go to or intend to live with relatives – the authority in your new area will not help you with accommodation or food or other essentials. If you leave, your local authority may need to take your empty house for others to use. So stay at home.

# 2

Details of the "Protect and Survive" protocol concerning refugees: *"Your local council will be best placed to help you in the event of war. If you move, unless you have your own accommodation or intend to live with relatives, the council of your new locality will*

*not provide you with any assistance for housing, food, or other essential needs. If you leave, your council may have to make your empty home available to other people. So stay home."*

Based on what we see in Buxton in the film, the second option was probably the one chosen. However, this situation seems to stem from local pragmatism, and its universal applicability is not guaranteed.

This situation deviates from the provisions of the emergency plan in case people were forced to leave their homes: it was stipulated that no shelter or food would be provided. This could

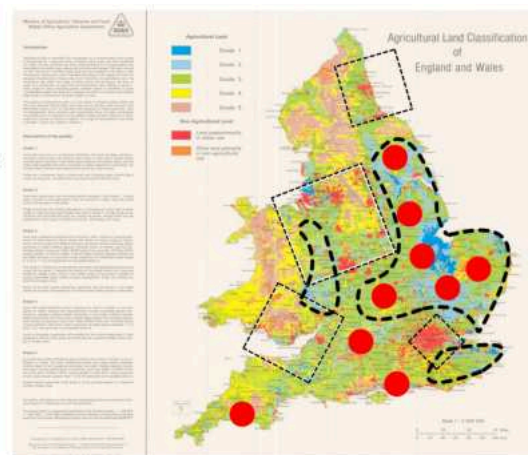
explain the discrepancy between the only two government broadcasts heard in the film. The first broadcast urged everyone to move to designated locations to begin reconstruction. The second broadcast shows a clear shift towards agricultural production. This situation is based on numerous historical precedents where authorities had to adapt

their plans to reality. A good example is Operation Hannibal during the collapse of Nazi Germany in 1945. To the very end, the authorities refused by all means to evacuate civilians (even children) from East Prussia, equating such actions with desertion. But ultimately, against their will, they had to evacuate one million civilians.

Although not depicted in the film, it was mandatory that a pre-harvest operation be organized by the authorities during this period, prior to the harvest, to prepare the fields. This involved

UK 1984-1985  
3/4  
"PRE-HARVEST"

-  Key urban areas destroyed (airburst)
-  Key military targets areas (groundburst)
-  Key agricultural areas

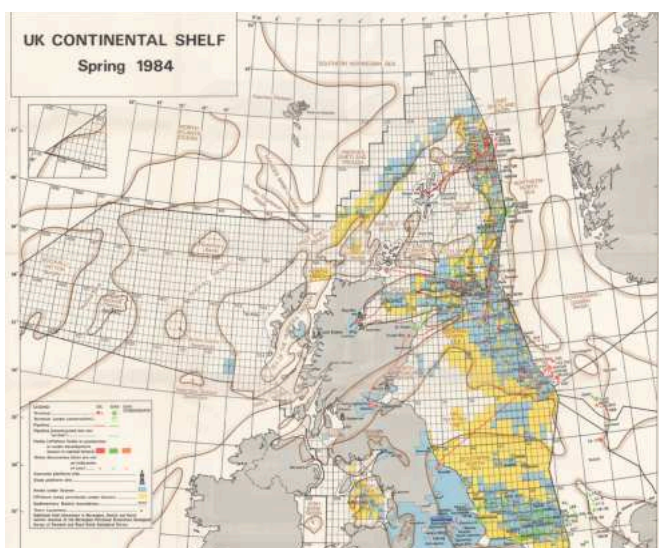


guidelines including: the removal of fallout dust (sometimes estimated to require removing up to 10 cm of soil in such cases – although this measure would likely have been very exceptional, even anecdotal, given its logistical and agricultural costs), the removal of livestock carcasses to prevent further contamination, the creation – however difficult – of soil contamination maps, and the preparation of machinery needed for processing the harvest. This organized effort likely began as soon as the curfew was lifted, in the following weeks. This mandatory pre-harvest operation logically implies that personnel (military personnel, agricultural experts, civil servants, etc.) and equipment (fuel, radiation assessment equipment, etc.) were deployed to agricultural areas of the United Kingdom very early and in large numbers. The geography of the United Kingdom allows us to identify several key agricultural regions (here for England and Wales in 1985). Identified by a black dotted line: the cereal plains of the United Kingdom, likely of vital importance to the fictional government in the film. The soil quality grading system is unique to the United Kingdom. It works as follows:

- Category 1, 2 and 3 lands are considered the "best and most versatile" and benefit from significant protection against development; these lands are mostly located in the East of England.
- Classes 4 and 5 are described as poor quality agricultural land and very poor quality agricultural land



All of these things likely require fuel. Due to the numerous logistical challenges and the exodus crisis putting immense pressure on rural areas, the efforts will probably be minimal. But the film shows us that the country continued to function for a decade after the attack, and this implies prior effort in the agricultural sector (seeds, livestock, etc.) during the year following the attack. Had this been the case, we would have witnessed, in many key agricultural regions, this gradual procession of vehicles and soldiers sent to carry out critical agricultural operations to salvage what could still be saved from the upcoming harvest.



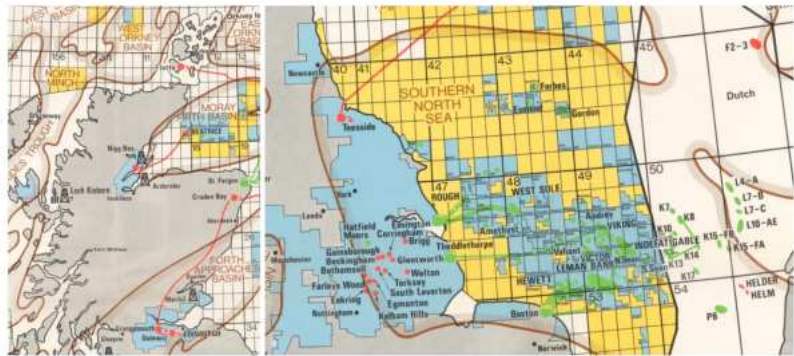
Regarding gasoline, the United Kingdom was a very large oil producer during the 1980s thanks to North Sea oil. The drawback was that all of this potential was essentially located quite far from the British coast, particularly near the Scottish coast.

The United Kingdom also possessed some oil and gas fields on its own soil, notably at Wytch Farm in the South West since the 1970s, and developments had been underway since the early 1980s in the Nottingham and Lincolnshire area. The UK also produced natural gas, the

fields from which were located closer to the east coast of England, as shown on the map. It

would be unreasonable to assume that the authorities would not have attempted to restore the numerous pipelines and communications links to these oil and gas drilling sites.

The oil terminals in Northern Scotland would logically have presented major logistical problems for their restart, given their distance from the urban areas of Glasgow and Edinburgh. The logical approach would therefore have been to concentrate on certain regions to restart or repair specific infrastructure. In contrast, the Teesside oil terminal and the gas terminals in Humberside, Lincolnshire, and Norfolk fit perfectly within the framework of redeveloping critical infrastructure in a region of strategic agricultural importance. Similarly, restarting the wells in the Wytch Farm area appears crucial, as the zone was capable at the time of potentially producing several thousand barrels of oil. A negligible amount in peacetime, but crucial in the context of that first year and also for the following decade. One could therefore assume, particularly given the constraints of feeding a substantial population a decade later, which would require agricultural machinery, that even a minimal gasoline production (250-500 barrels/day, for example) would be gradually redeveloped over the course of the decade. At the end of these three and a half months, only 6.7 million barrels remain.



Key points of the period:

- Necessary management of the exodus crisis and probably emergency provisions (in particular, abandoning the refusal to accept non-resident persons in the towns/villages concerned)
- Logistical deployment of personnel (military, civil servants, experts, etc.) and equipment (petrol, machinery, etc.) to key agricultural areas of the United Kingdom, in this order of priority: East of England (cereal plains and numerous vital crops), Edinburgh region in Scotland (barley, potatoes, etc.), Hereford-Worcester (mixed), Kent (fruit), South West of England (livestock)
- Conscription of the rural population and urban refugees to organize the first critical agricultural work: establishing radiological maps, cleaning the soil, census of livestock, removal of animal carcasses, harvesting ripe and consumable products, preparation of agricultural equipment...
- Vital work to restart viable oil infrastructure, with efforts concentrated in the Southwest (Wytch Farm oil wells) and, if possible, work to restart pipelines/refineries to obtain oil from the North Sea

### ***"First post-nuclear war harvest" September 23, 1984 to December 22, 1984***

*If we are to survive these first difficult months and lay a solid foundation for our country's recovery, we must focus all our energy on agricultural production. Harvesting this first, diminished crop is now literally a matter of life or death. Chronic fuel shortages mean this could be one of the last times tractors and combine harvesters are used in Britain.*



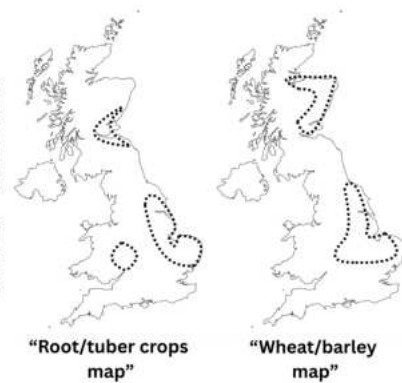
will be sent to Scotland. A new problem arises: the vast Midlands conurbation is devastated, rendering the motorway network impassable. The only route: East Anglia, then along the east coast. Problems emerge on the ground: disagreements, difficulties managing the flow of refugees, fuel losses, thefts, delays... The agreement reached was already poor; Scotland will ultimately receive even less.

It's quite ironic that during the one and only government-organized harvest in the film, people were working with their bare hands to collect food, whereas they were all working with tools and even protective goggles one year and ten years later. All these clues foreshadow a desperate, disorganized, and inefficient harvest. On a societal level, things are clearly deteriorating on screen during the harvest. People collapse from exhaustion to the ground without receiving help, Ruth herself is abandoned and forced to give birth alone, and the survivors work under close military supervision. This doesn't bode well for a happy ending. All of this is, unfortunately, the culmination of an unjust rationing system.

The harvest is taking place while trying to keep the remaining generators running across the country to maintain the few critical infrastructure that is rapidly disappearing. Operating all available tractors and combine harvesters will require a significant amount of fuel. It is also important to note that in the 1980s, the UK had an estimated population of 350,000 tractors of all types, combine harvesters, and other agricultural equipment. Even though the countryside was largely spared from radioactive fallout, destruction, and electromagnetic pulses (EMPs), it is unlikely that all of these vehicles are operational. Above are the UK government statistics from 1983 on agricultural

Sources:

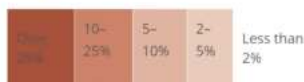
- "Root/tuber crops map": Agriculture and Horticulture Development Board (AHDB), U.S. Department of Agriculture - Foreign Agricultural Service, "Addressing the land use issues for non-food crops, in response to increasing fuel and energy generation opportunities."
- "Wheat/barley map": Agriculture and Horticulture Development Board (AHDB), U.S. Department of Agriculture - Foreign Agricultural Service, "Adverse weather conditions for UK wheat production under climate change"



### Wheat



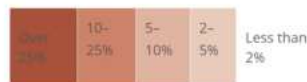
#### Area



### Barley



#### Area



vehicles (Source: Agricultural Statistics United Kingdom 1983, Ministry of Agriculture, Fisheries and Food, Department of Agriculture and Fisheries for Scotland, Department of Agriculture for Northern Ireland, Welsh Office).

An undetermined number of survivors of the nuclear attack died during the exodus crisis of the preceding months (famine, violence, disease, radiation sickness, injuries, third/fourth-degree burns...), the film providing no precise count. It is therefore unlikely that the

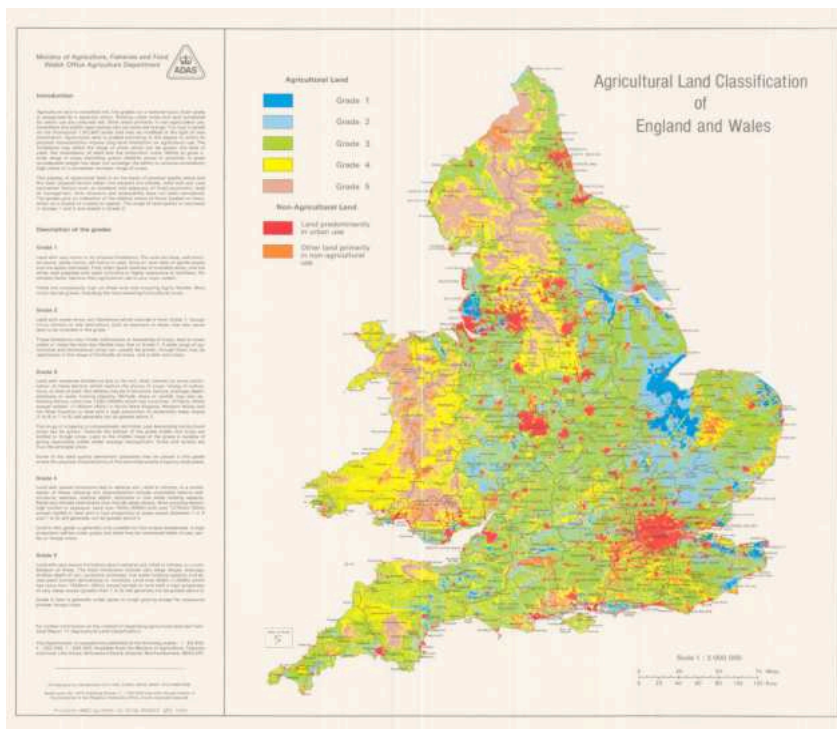
survivors could operate all the machinery. But this implies that the authorities will still need vehicles for this harvest. And unlike cars, whose fuel consumption is measured in liters per 100 km, the fuel consumption of agricultural vehicles is generally measured in liters per hour. For reference, a medium-sized tractor might require 0.1 barrels per hour. If we extrapolate this value to all the agricultural vehicles in our case (which is absolutely unnecessary, of

course, but serves to illustrate the point), it amounts to 35,000 barrels per hour and 280,000 barrels per day (8 hours). An amount that defies imagination in a post-nuclear war world.

The strategic importance of East Anglia is clearly illustrated by this map showing the location of root/tuber/wheat/barley crops in the UK. The harvest scene involving a combine harvester, and therefore cereals, must logically take place in East Anglia. Here is a map showing where cereal crops (wheat on the left and barley on the right) are predominantly grown in the UK (maps of the *Agriculture and Horticulture Development Board*).

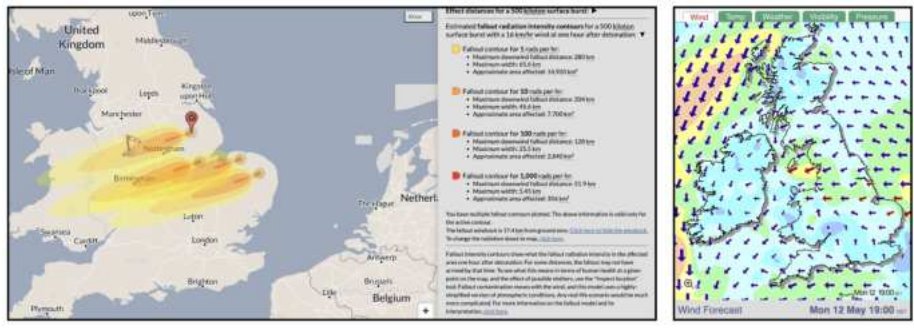
The scene could therefore logically imply Ruth's migration from Buxton towards the east of the country, as the Buxton region is solely dedicated to pastureland. Wheat and barley are generally harvested between July and August in the UK. The delayed harvest in the film reflects this significant disruption. As a reminder, this reality is illustrated earlier in the 1985 map of soil quality in the UK (England and Wales) for agricultural use. The soil quality grading system is unique to the UK. It works as follows:

- Category 1, 2 and 3 lands are considered the "best and most versatile" and benefit from significant protection against development; these lands are mostly located in the East of England.
- Classes 4 and 5 are described as poor quality agricultural land and very poor quality agricultural land



In connection with the discussion above regarding the need to organize remediation efforts against radiation in major agricultural areas, here is a visualization of the consequences of nuclear ground strikes (or "groundburst") and more specifically in the most arable land of the United Kingdom, here is a visualization of potential paths with NUKEMAP and some symbolic targets in the East of England and an associated wind map (I deliberately chose the

month of May to match the date of the attack in the film, even though of course the winds can vary greatly depending on the month of the year):



The bombs used were on the order of 500 kilotons. This value corresponds to the small-caliber weapons identified during Exercise Square Leg, organized in 1980 by the British authorities. NUKEMAP uses a very simplified model (fallout never follows a straight line or such a precise path), but it gives us a general idea. We can see that the most severe pattern of 1000 rads—a lethal dose in case of exposure—is relatively limited (the darkest red lines on the map). The bulk of the impact could be around 100 rads based on this simplified model. Note that this only represents the potentially absorbed dose: it does not take into account radioactive contamination of the soil. In general, it is estimated that:

- A dose below 100 rad generally does not cause immediate symptoms other than blood changes.
- A dose of 100 to 200 rads delivered to the whole body in less than a day can cause acute radiation syndrome (ARS), but is not usually fatal.
- Doses of 200 to 1,000 rads delivered over a few hours cause serious illness, with a poor prognosis at the higher end of the range.
- Whole-body doses exceeding 1,000 rads are almost always fatal.

The size of the weapons used also affects the extent of the potential fallout. Here is a result with "lighter" weapons of 250 kilotons, with fairly similar results.



As for what would have happened on the ground, that's another story. But given the agricultural value of this region, it seems logical that the authorities concentrated their efforts there to save this arable land. To recap: the film shows us a harvest with a combine harvester, the government broadcasts a message urgently requesting survivors to participate in agricultural work, and the fictional government implements a program involving social control linked to food distribution.



The United Kingdom faces a constraint inherent to its geography that would have prompted significant efforts: it is a relatively small and very compact country. The UK has productive agricultural land, but this land is relatively limited in size and geographical distribution. This 2024 statistic on British cereal production (and more specifically wheat) is revealing: the majority of its production is concentrated in the east of the country.

	NORTH		NORTH YORKSHIRE		NORTHAMPTONSHIRE		LINCOLNSHIRE		DEVENTHAM		HUMBERSIDE		KENT		ESSEX		CAMBRIDGESHIRE		NOTTINGHAMSHIRE		SUFFOLK	
	1981	%	1981	%	1981	%	1981	%	1981	%	1981	%	1981	%	1981	%	1981	%	1981	%	1981	%
Total Agricultural Area	1,000		1,000		1,000		1,000		1,000		1,000		1,000		1,000		1,000		1,000		1,000	
Of which:																						
Arable	482,518	48.3%	482,518	48.3%	482,518	48.3%	482,518	48.3%	482,518	48.3%	482,518	48.3%	482,518	48.3%	482,518	48.3%	482,518	48.3%	482,518	48.3%	482,518	48.3%
Permanent Pasture	517,482	51.7%	517,482	51.7%	517,482	51.7%	517,482	51.7%	517,482	51.7%	517,482	51.7%	517,482	51.7%	517,482	51.7%	517,482	51.7%	517,482	51.7%	517,482	51.7%
Woodland	1,000	0.1%	1,000	0.1%	1,000	0.1%	1,000	0.1%	1,000	0.1%	1,000	0.1%	1,000	0.1%	1,000	0.1%	1,000	0.1%	1,000	0.1%	1,000	0.1%
Other	1,000	0.1%	1,000	0.1%	1,000	0.1%	1,000	0.1%	1,000	0.1%	1,000	0.1%	1,000	0.1%	1,000	0.1%	1,000	0.1%	1,000	0.1%	1,000	0.1%

To that end, here is a summary of agricultural land in England in June 1983 with regard to major agricultural products (cereals, vegetables, potatoes, and sugar beets) for the eastern British counties. Cereals (3.3 million hectares in June 1983):

- North Yorkshire : 189716 hectares
- Humberside: 178257 hectares
- Lincolnshire : 291423 hectares
- Norfolk : 219837 hectares
- Suffolk : 183857 hectares
- Essex : 167774 hectares
- Kent : 93431 hectares
- Cambridgeshire : 179817 hectares
- Nottinghamshire : 80127 hectares
- Northamptonshire : 96674 hectares
- Hertfordshire : 62552 hectares
- Bedfordshire : 57995 hectares

Total: 1.8 million hectares (54% of England's surface area). Vegetables – excluding potatoes – (140,000 hectares in June 1983):

- North Yorkshire : 2557 hectares
- Humberside: 11783 hectares
- Lincolnshire : 34266 hectares
- Norfolk : 19206 hectares
- Suffolk: 9991 hectares
- Essex: 6427 hectares
- Kent: 7139 hectares
- Cambridgeshire : 11161 hectares
- Nottinghamshire : 2079 hectares
- Northamptonshire : 238 hectares
- Hertfordshire : 851 hectares
- Bedfordshire : 3908 hectares

Total: 103,000 hectares (73% of England's surface area). Potatoes (141,000 hectares in June 1983):

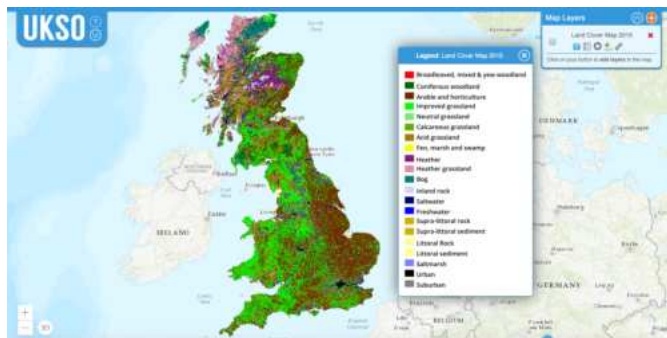
- North Yorkshire : 12273 hectares

- Humberside: 7884 hectares
- Lincolnshire : 20065 hectares
- Norfolk : 12406 hectares
- Suffolk: 4038 hectares
- Essex: 5578 hectares
- Kent: 5951 hectares
- Cambridgeshire : 12653 hectares
- Nottinghamshire : 4976 hectares
- Northamptonshire : 1295 hectares
- Hertfordshire : 702 hectares
- Bedfordshire : 1202 hectares

Total: 84,000 hectares (59% of England's area). Sugar beet (198,000 hectares in June 1983):

- North Yorkshire : 12880 hectares
- Humberside: 9655 hectares
- Lincolnshire : 33021 hectares
- Norfolk : 58670 hectares
- Suffolk: 24694 hectares
- Essex : 4685 hectares
- Kent : —
- Cambridgeshire : 23851 hectares
- Nottinghamshire : 8156 hectares
- Northamptonshire : 632 hectares
- Hertfordshire : 289 hectares
- Bedfordshire : 509 hectares

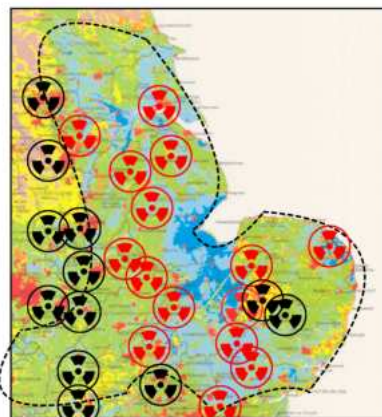
Total: 177,000 hectares (93% of England's land area). If this land is neglected or abandoned, it means the UK loses most of its cereals, potatoes, and virtually all of its vegetables and sugar beets. The dominance of East England (and the UK in general) is clearly illustrated by this map of UK land use, with the massive concentration of arable crops in the East of the country (East England, Kent, and the Edinburgh region).



- East of England -  
Fallout concerns

- Top priority areas
- Abandoned areas

Source : Square Leg exercise (1980) targets plot map to identify key impacted areas

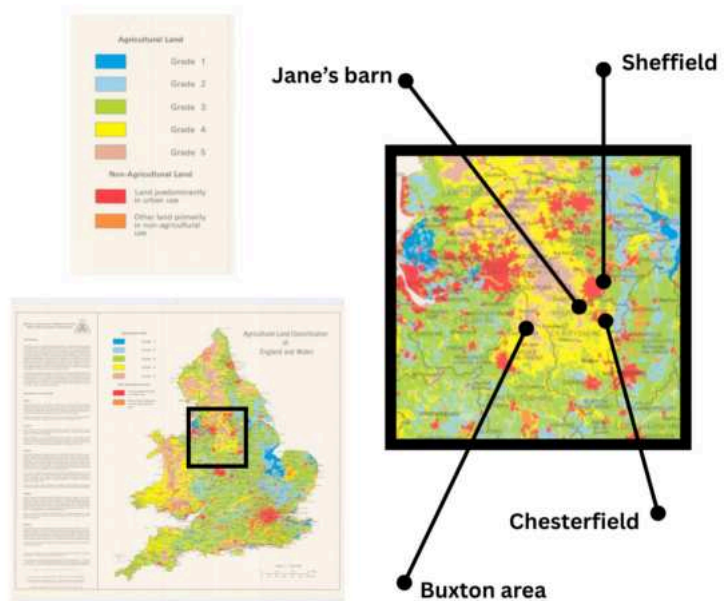


Here is a map of East Anglia showing potential impacts based on the Square Leg exercise (1980). It's an extreme but illustrative case. The idea is to identify the most logical remediation efforts in red: around the Fens region, from Norfolk along the coast in particular, and along the coast to Yorkshire. This work is vital for

preserving both soils and crops. Areas to be abandoned, considered non-priority, are shown in black.

In conclusion, it is important to discuss radionuclides. These are simply specific radioactive materials (cesium-137, strontium-90, iodine-131, etc.) that can compromise food safety. It is therefore necessary to distinguish between the foods concerned, the potential impact, and remediation measures.

- Cereals: moderate to high impact, contamination mainly of the roots and husk; further cleaning/refining of the grains is recommended.
- Leafy vegetables: high impact, direct contamination; it is recommended to wash them thoroughly and remove as many outer parts as possible.
- Root vegetables: moderate impact, risky consumption; thorough washing, deep peeling, and systematic cooking are recommended.
- Fruits: moderate impact, risky consumption, same methods as for root vegetables, but the risk of contamination of the "internal" parts persists.
- Milk: high impact, very risky consumption; it is imperative to process milk through the production of cheeses with long aging processes.
- Meat: moderate to high impact, few solutions other than avoiding muscle meat ("trimming") or waiting



This problem with scene location—and therefore the film's agricultural inconsistency—is demonstrated by comparing this 1985 map of British soils with the approximate locations of the scenes after the attack and ten years later. According to the film, the scenes take place in areas with the poorest soil, least suited to cultivation. But let's return to the main subject.

You will also need to restart some food processing plants, even simple things like a grain mill. The military, heavily involved in maintaining order and overseeing operations, mainly in rural areas, will need fuel. This could be one of the last episodes of "mass consumption" of fuel in the UK due to the existential need to harvest food, with up to 53% of the remaining stockpile used over a three-month period, or 3.6 million barrels, or 40,000 barrels per day. This means that tractors and combine harvesters may be used in greater numbers than anticipated. Generators and what remains of the infrastructure are likely now only using 3,000 barrels per day. Non-agricultural vehicles (mostly for military or logistical use) are still expected to consume 5,000 barrels per day. With the depopulation of cities following the mass exodus and the need to concentrate all energy on agricultural production, most of them are left abandoned and without electricity. This leaves 32,000 barrels per day for tractors, combine harvesters, other agricultural machinery, and the operating costs of what remains of

the food processing units; meaning that perhaps 40,000 agricultural vehicles could be used (0.8 barrels per day/agricultural vehicle). Compared to the number of agricultural vehicles in the UK, this theoretical figure represents less than the total number of combine harvesters in England, Wales, and Scotland in 1983 (54,775 vehicles in total).

Harvesting			
Combine harvesters:			
Under 60 kw (80 hp)	13,600 (f)	1,173	} (g) 7,910
60 kw (80 hp) and under 80 kw (107 hp)	17,200 (f)	479	
80 kw (107 hp) and under 100 kw (134 hp)	10,300 (f)	178	
100 kw (134 hp) and over	3,900 (f)	35	

Finally, efforts are necessarily being made to prepare for the next harvest. After 90 days, 3.2 million barrels are still available.

Key points of this period:

- The gradual (and necessary) integration of the urban refugee population into the rural world through participation in all agricultural work; a necessity to guarantee a smooth transition in the following decade
- A gradual increase in the power of a more decentralized organization to guarantee the capacity to have governance in the event of failure of the central State; with maintenance of the capacity to coordinate in a supra-regional manner (a critical point for harvests in a context of regional specialization)
- Concentration of expertise, institutional skills and population in key agricultural/industrial areas, and formation of logistics hubs at the intersection of industrial/agricultural/energy capacities; hubs that could logically become "relay points" in a context of degradation of the state apparatus.
- From an energy perspective, with winter approaching, there is a need to restart even minimal coal production.

### ***"First post-nuclear war winter" December 23, 1984 to March 28, 1985***

*...During the first few winters, many young and old people disappeared from Great Britain...*

Next, we have the first winter after the nuclear war. Due to the prolonged effects of the nuclear winter, the temperature drop is greater than usual, resulting in many deaths. These deaths will likely lead to a significant decrease in fuel consumption, as many activities are unsustainable without a minimum workforce. The chronic fuel shortage following the "massive consumption" of fuel during the harvest means that many systems are out of service. Transport will be difficult without snow removal. Many pre-war generators are probably no longer even in use. There are probably roughly 100-150 generators across the country, consuming 2,000 barrels per day. Thus, the UK is probably "sleeping," as people are unlikely to be working (the harvest being finished), but normally human activity should gradually resume with the end of winter and the need to resume some agricultural work (but with a significantly depleted and compromised fuel supply). The figure could be around 20,000 barrels per day. During these 95 days, 1.9 million barrels are used. The remaining stock is estimated at 1.3 million barrels.

Key points of the period:

- Critical threshold for a resumption of oil production, a necessity for the harvest from 1985 onwards, as the agricultural system is not capable of abruptly transitioning to

manual harvesting (particularly for cereals); oil production is currently being consolidated/increased for the summer of 1985

- Gradual introduction of manual techniques to save fuel (“hoe-farming” and possibly animal traction in regions where this is already possible) in preparation for the summer 1985 harvest.
- Resumption of agricultural work with better adherence to the agricultural calendar (requires restoring a normal agricultural cycle)
- Consolidation of forms of governance alternative to the central state (regional hubs, potential residual states, etc.)



***"Collapse of centralized governance" from March 29, 1985 to May 26, 1985***

This scene from *Threads* begins with a telex stating that it is 10 months after the attack. The scene opens with several close-ups of wheat stores and a soldier inside a barn overseeing

the harvest. Then you hear gunshots, Ruth and others fleeing with grain, you can hear a soldier from a helicopter ordering people to return and firing, and then you see Ruth crying and desperately trying to crush grain to feed her baby. The scene is ambiguous, but one could infer that the harvest is either severely rationed or not being distributed at all (likely because there isn't enough food for everyone), and that consequently, people are resorting to stealing to survive. The film doesn't explicitly state this, but my personal opinion is that the harvest is a lost cause, so what follows is based on that assumption.

***Parallel with “the year without a summer” (1816)***

With the failure of the harvest becoming evident to everyone, and the authorities unable to distribute enough food to the people, mass desertions and acts of disobedience could occur among civilians refusing to participate in the forced labor system, as the authorities could no longer provide what had served as the incentive to force people to work: food. To understand the extent of the irreparable failure of the harvest, it is necessary to understand that pre-war grain production was 22 million tons in 1983. I will use this figure for illustrative purposes. We can calculate the amount of the lost harvest as follows (the calculations are based on the entire potential harvest):

- We know from a similar event known as "The Year Without a Summer" in 1816 that without or with little sunshine, crop losses can reach 30-60%. Taking the average

(45%), this means that 9.9 million tons of grain were lost, leaving 12.1 million tons remaining.

- We can also consider the fact that some regions of the country are deemed unsuitable for exploitation by the authorities due to high levels of radiation and bombing during the nuclear attack. This could represent 5% of the potential harvest (i.e., 1.1 million tons), leaving 11 million tons
- The exodus has put a lot of pressure on the countryside, potentially leading to the destruction of 2.5% of the upcoming harvest, or 0.5 million tons of grain.

When the harvest began, this meant that production was limited to 10.5 million tons. But more food will be lost in the process (the following calculations are now sequential):

- We can deduce about 10% in the form of seeds for the next harvest (i.e. 1.05 million tonnes), so 9.45 million tonnes remain.
- The rate of deterioration and loss (poor storage and transport conditions, destroyed silos, etc.) can be estimated at 15% (i.e., 1.417 million tonnes). The harvest yield is further reduced to 8.03 million tonnes.
- The difficult conditions imposed to ensure the success of the harvest are probably accompanied by hoarding and theft, let's say 5% (or 0.401 million tonnes) or 7.629 million tonnes remaining.
- Using inexperienced (and exhausted) personnel and a reduced number of vehicles will impact the quality and quantity of the harvest by, say, 10% (or 0.762 million tonnes). We now have 6.827 million tonnes of grain available.
- The impact of pests such as weevils, beetles, and fungal contamination due to poor storage conditions, inadequate worker training, poor weather conditions, and a lack of chemicals must be included. This could represent 20% (or 1.373 million tonnes).

Ultimately, we have 5.454 million tons, less than 25% of a pre-war harvest. This is a worst-case scenario for illustrative purposes (the amount could have been much higher, especially with less severe weather, but the film remains silent on this point). Nevertheless, the entire system was dependent on grain, the production of which was compromised even with better weather conditions: mechanization, fuel, processing... A missed opportunity to shift to other crops. This drastically reduced harvest still needs to be processed and transported to food depots. But due to the gradual collapse of logistics, transportation, and communications, this could mean that a significant portion of the harvest won't even be distributed. This possibility corresponds to Ruth's desperate attempt to steal grain to feed her daughter. Regardless of the exact amount collected, it would have been far from sufficient to meet their needs.

### ***Consequences of the failure of the “food-for-work” program***

To understand all the consequences, we must go back to June 10, 1984, when the authorities began reconstruction. For reasons difficult to pinpoint, the film explains that they linked access to food to forced labor, even for children:

*...All able-bodied citizens – men, women, and children – must report to the reconstruction work starting at 8:00 a.m. tomorrow morning. Residents of Release Band A, that is, Dore and Totley, Abbeydale, and Woodseats, should meet at Abbeydale Park...*

*...Money has lost all meaning since the attack. The only viable currency is food, given as a reward for work or withheld as punishment. In the bleak economic situation that followed,*

*two harsh realities stand out. A survivor who can work receives more food than one who cannot, and the more deaths there are, the more food remains for the survivors...*

The film suggests that the mechanism may not have been universal. It can be assumed that basic necessities were provided to the most vulnerable, but without any real guarantee, as evidenced by the exodus from the cities. The film also doesn't explain how the system functioned during the winter. In Buxton, when Ruth arrives after leaving Sheffield, there seems to be a form of soup kitchen organized for refugees. This could be explained by pragmatism, if the local authorities had no other option. But then we have another scene where Ruth is forced to eat a dead animal in the countryside. The existence of the program, however, seems definitively confirmed by the film's scenes during the 1984 harvest: Ruth forced to work while pregnant and abandoned, people dying or collapsing from exhaustion without assistance...

Since the film is completely vague about this counterproductive choice made at the worst possible time, here's a possible explanation (to be honest, perhaps the only way for the film to maintain its credibility, even if it means altering its message): the fact is that the implementation of the "work-for-food" program was probably decided not because of logistical or ideological constraints, but because the authorities (unfortunately, as in many historical cases during major upheavals) were more concerned with maintaining order and keeping people under control, and because they believed it was the best way to preserve pre-war economic, agricultural, and societal systems. The authorities were, in fact, reluctant to admit that the best solution was to adapt to the realities of the post-nuclear war era, rather than trying to force those realities into conformity with pre-war expectations. This is impossible, because all past systems relied on dwindling resources (like gasoline) or destroyed infrastructure. The best example is the use of fuel to maintain highly mechanized agriculture, when authorities should have been moving as quickly as possible towards more resilient and sustainable systems.

It was, of course, impossible to put food in stores for people to buy, but a "classic" rationing system might have been a better solution. Everyone receives food, even in very small quantities (especially the most vulnerable, such as newborns, children, and the elderly), and those who work can receive a supplement. The social contract could have survived, because with a rationing system, food is always a means of survival, not an end in itself. But with the imposition of forced labor, the social contract vanished. When something as fundamental as survival is tied to forced labor, we open the door to the unknown. The mechanism introduced by the narrator clearly resembles a coercive and transactional system. In such an environment, there is no room for cooperation, because the new economy consists of giving more food to the survivors when more people die. The "wealth" of the survivors is now tied to the deaths of their loved ones. Trust erodes and inevitably creates antagonism between people themselves and between people and the authorities. This system can function as long as the authorities are able to provide food or use violent means, but when food runs out, everything collapses.

Regarding the possible contingency plans of the British government discussed in the book *\*War Plan UK\** (mentioned above), however imperfect they may have been, they did not, on paper, resemble what the film itself presents. The introduction of a form of bartering for compensation is not inherently problematic, as long as the objective is to maintain social cohesion and cooperation, even if this is imperfect. This has nothing to do with viewing human life as solely linked to an individual's productive capacity. For example, a coal miner or a farmer in the fields simply needs to eat more than someone who stays home. Everyone is

entitled to something, normally. The problem here is that the film introduces a mechanism that transforms the food distribution system into something entirely transactional, non-cooperative, and punitive—a system in which the death of the most vulnerable becomes a desired outcome. A system that doesn't even remotely resemble a poorly conceived or implemented contingency plan, but clearly resembles a concentration camp system. A system presented with great detachment by the narrator, and which aligns perfectly with the film's imagery (even if this may not have been fully conceptualized by the directors): an essential component for understanding the events visible on screen.

### ***Overall picture of the institutional/food crisis***

The crisis could have begun around mid-February 1985, with the emergence of the first localized events leading to the major crisis of March-May 1985: local authorities would likely have been tasked with implementing a newly reduced ration for "workers" given the dwindling harvests and the scarcity of remaining food stocks. Central authorities could have been trapped in this self-reinforcing "collapse loop."

1. Decreased food stocks and poor harvest
2. Reduced rations
3. Disobedience/desertion given the contractual (and non-cooperative) nature of the "work-for-food" program
4. Lack of workers for coordinated efforts under the leadership of the central government
5. The emergence of county/regional level efforts, without the agreement and oversight of central authorities.
6. Crucial tasks for the central government are not being completed, and crucial resources are being diverted to the benefit of alternative actors.
7. The harvest is poorly managed, distributed or stolen/hoarded in certain regions of the country (especially the most vulnerable)
8. The gradual collapse of the national food distribution system (the "work-for-food" program) was logically replaced by alternative rationing, and above all, emergency food aid.
9. The authorities (military and civil servants) on the ground are also impacted, logically leading to their taking control of the preserved/rehabilitated agricultural/industrial zones from the first year onwards.
10. Central authorities are "passing the buck," resulting in poor communication and inertia among institutional actors.
11. Disruption of communications and transport (lack of fuel, workers, orders...)
12. The gradual shift from purely centralized efforts to decentralized efforts within the framework of new decisions by local authorities (seed harvesting and conservation, food aid systems, coordinated efforts for planting/harvesting, etc.)

One important fact confirms our intuition about this theory: Ruth is stealing raw grain with other people. This means that, presumably, these people no longer have (or have very limited) access to processed edible products: logically, bread in our context. Even with the delay, the harvest should have been over by December 1984. These grains should normally serve two purposes: seeds for the next harvest and processing into bread/flour to feed the population. The scene takes place nearly three months after the theoretical end of the harvest. Grain must undergo a processing method to become edible. The mere fact that the population is forced to rely on these processed products is further evidence of the ongoing disintegration of the food distribution system.

Order gradually eroded thereafter, probably within weeks, because the national authorities progressively had nothing left to offer to control a desperate population. What will likely happen behind the scenes is deeply rooted in human nature: no one wants to be held responsible for the failure of the harvest. Even though the harvests were doomed from the start due to the nuclear winter, the lack of manpower, fuel, and machinery. This will not be a top-down approach whereby the remnants of the British government shift the blame to local authorities (or the remaining RSGs), who, in turn, shift the blame to the military tasked with achieving the objectives. If this had happened, I think it would have been in the opposite direction: the military, confronted "physically" with the failed harvest (and all its consequences) and the need for orders and guidance, would most likely have turned to what remained of the local authorities (or the remaining RSGs), who, in turn, would have referred to what remained of the British government. With no idea of what to do next, the authorities would have remained, at best, evasive, or at worst, silent. And since most communication between these people would be via degraded communication systems and not face-to-face, this would have led to misunderstandings, misinterpretations, and mistrust. This was already a major problem in the weeks and months following the nuclear attack because the authorities were barely on the ground and relied heavily on intermediaries for information. This would prove fatal following the failure of the harvest and the need for a swift and coordinated response to maintain unity in what remained at that time of the United Kingdom.

### ***The logistics trap***

The reader may ask themselves the same question as we did: did we miss something by focusing for a long time on a resource (gasoline) that seems totally disconnected from the crisis described on screen 10 to 12 months after the attack? Yes and no.

Yes, because regardless of the exact values of barrels or jerrycans, it is clearly not a decisive factor in the film.

No, because we followed the path of the authorities and especially the film's narrative: we followed the classic path of a government in this situation, careful with its resources, but neglecting, like the film itself without realizing it, to take into account an essential factor: the need to maintain national cohesion and cooperation. Logistics remains a crucial factor for understanding certain things on screen, of course. But social cohesion even more so.

However, it's worth noting that the film ignores the realities of governance that are so evident on screen during the first year. The film aims to convey a message of utter powerlessness that is incompatible with the elements shown: a combine harvester, a plane flying over columns of refugees, a helicopter from which a soldier fires at Ruth... Remember the famous scene of the soldier in the barn bringing a jerrycan to fill a tractor: this cannot exist without an organizational and logistical structure in a realistic scenario. This soldier isn't walking from Exeter to the Sheffield area with a jerrycan. Yet the film is in denial: in a realistic context, this soldier likely has a truck with jerrycans, a map, and a list of farms where he can refuel; and he is required to make regular rounds (which is undoubtedly even more relevant in the context of the harvest depicted on screen). Whether this is coordinated at the national, regional, or even county level.

Our exercise on gasoline is interesting in this respect because it allows us to conceptualize the logistical and organizational universe (including the choices discussed regarding gasoline allocation) necessary for the first year to exist on screen. It doesn't matter if the figures are accurate (500, 250, or 50 generators; 40,000, 10,000, or 5,000 agricultural vehicles; 50,000,

25,000, or even 2,500 transport vehicles; 40,000 or even 15,000 barrels per day...): if these things (gasoline, organization, cooperation...) didn't exist, nothing would have been functional on screen for a long time already.

And when you know this: you can only be more skeptical of the rationing program implemented in the film.

### ***Why is the crisis complex to articulate and not understood by the film?***

Returning to the main subject, the rationing mechanism, the film presents it as a mere formality, yet the mechanism completely reverses the film's narrative. The system is so cynical and perverse that no matter the catastrophe, a brutal rupture is inevitable. The film, unwittingly and against its will, has just shifted from the message "bombs will create unavoidable situations" to "human decisions are ultimately the only things that matter."

If we hadn't had the rationing system introduced by the film, we would still have the same problem. These grains haven't been processed for months. The climate phenomenon alone isn't enough to explain the situation, since the demographic figures in the film (up to 38 million deaths four months after the attack) should normally lead to a new balance of resources: less grain, less fuel... but also fewer people. Clearly, this is neither the case nor the point made on screen.

We may have misled the reader a little, but ultimately we simply followed the film's tranquil narrative, which created the mechanism guaranteeing the collapse, with incredible detachment. What do we do now?

We articulate this seemingly insignificant element for the filmmakers, which slips in between the scene where Ruth steals grain and the atomic bombs. The bombs are no longer the sole explanation; human choices take center stage. To the detriment of the film's message. But also in a spirit of perfect logic: what we see on screen in March 1985 has nothing to do with radiation, nuclear winter, or bombs. The situation is more serious than that (grain has potentially been stored for months without being planted or has still not been milled into flour), and since the film offers no explanatory mechanism, we can only deduce that what is happening is linked to a reduced harvest (a possible effect of nuclear winter), which itself has weakened the edifice established by the film, which consists of creating a transactional relationship around food.

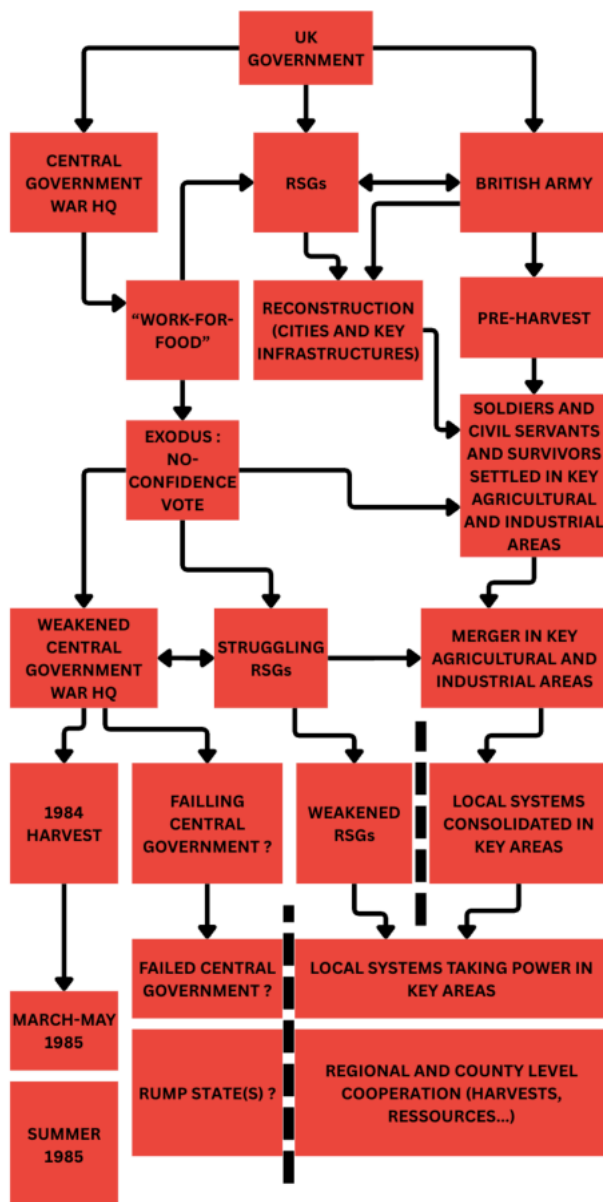
We would have applied the same rigor to a problematic passage in the Hebrew Bible. The exploitation of this narrative gap in *Threads* is merely the result of a problematic narrative structure: the filmmakers give the impression of having constructed a completely fragmented universe where each scene exists in isolation. The film attempts to advance the story with disconnected scenes, while refusing (consciously or not) to take into account the elements introduced earlier. The opposite of realistic filmmaking. Unfortunately, what happened is the following:

- The scene with Ruth and the grain is particularly ambiguous but leaves no doubt about the underlying problem: the food distribution system is failing and the harvest is not being processed properly.
- The film offers no explanation for this scene (neither from the character nor from the narrator).

- An investigation is undertaken to find a cause: why does Ruth have to steal grain, a product virtually impossible to process herself for consumption? It appears to be a completely desperate act.

We find:

1. First, the harvest is probably disastrous due to the nuclear winter (and therefore probably reduced).
2. Then there's the rationing mechanism introduced earlier in the film: a completely unfair, contractual system that destroys cooperation and is structurally entirely dependent on an adequate supply of food.
3. The combination of these two mechanisms (rationing system and reduced harvest) can only lead to this analysis: the authorities have just lost control of the situation, their system based on a contractual relationship with food has probably become completely unmanageable, and the consequences are spreading throughout the entire food distribution system.



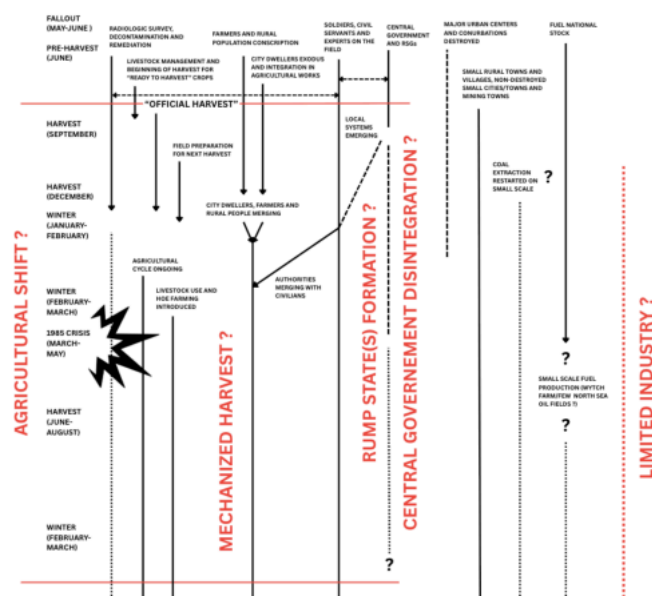
To conclude on this point, we reiterate that our work is not ideological. The film aims to be realistic and has received scientific, academic, and media validation. Therefore, narrative coherence is the bare minimum for a film claiming these qualities. And narrative coherence transforms the film's message. But let's return to the story.

### *The scale of the institutional crisis*

The soldiers (unlike civilians), who were once protected because of their status and importance in post-nuclear Britain, will also begin to feel the effects of the failed harvest, and it is quite possible that some of them will quickly die of starvation due to the breakdown of the food distribution system. They will likely suffer from exhaustion and stress, and a year after the nuclear attack, many of them may also be dead. The problem? The soldiers are very likely the only people truly on the ground in contact with civilians. They could have been the solution to the crisis; they risk becoming the problem. These soldiers have been under immense stress for almost a year. Many are probably without news of their loved ones. They have had to implement—possibly against their conscience for some—an unjust political agenda. Morale and discipline are at rock bottom for many of them. The overall situation can only serve as a trigger.

One can imagine that, for a brief period, the military tries at all costs to maintain order and control of the situation, because that is what is expected of soldiers, but also because their status in postwar Britain is tied to the circumstances. But everything will soon collapse around them as the government and RSG officials gradually die (if they haven't already), disappear, desert, and finally cease issuing instructions altogether, as depicted in the film *Threads*.

With the collapse of all forms of centralized command and the dissolution of the United Kingdom as a united country (meaning for many soldiers that even the "higher good" for which they sacrificed themselves is gone, and therefore the meaning of their lives), it is likely that some units will begin to fend for themselves, disband, merge with the local population (like some civil servants) to organize localized but coordinated, and most importantly vital, efforts in response to the severe agricultural and food crisis on screen.



### *Ensuring state, societal and agricultural continuity*

It seems a logical prerequisite that a large proportion of these military personnel/civil servants would have quickly integrated with the local population to organize localized but coordinated, and above all vital, efforts in response to the severe agricultural and food crisis depicted on screen. This was a highly probable and logical prerequisite for having 4 to 10 million survivors ten years later, according to the film's figures, due to the need for coordination beyond the village level and for agriculture that wasn't of the primitive subsistence type required for

such a population. This therefore necessitated: coordination from March-May 1985 onwards across large geographical areas between institutional actors, survivors, and farmers; preservation of seeds and livestock (vital for plowing); and the transmission and preservation of knowledge—a monumental collective effort given the context portrayed on screen. Without coordinated efforts by competent actors at the worst possible time, across large geographical areas, there would have been little chance of survival; not to mention the lack of technical infrastructure or coal mining.

To offer the reader a glimmer of hope, we can also imagine that some of the remaining military forces attempted to create and maintain a "rump state" (the exact term is "rump state," but I've chosen an alternative to express this reality) of the United Kingdom somewhere within the country (like the Kingdom of Soissons after the fall of the Western Roman Empire). This might be the most logical place to organize the return of electricity, a school, and a hospital, as seen 13 years after the nuclear attack at the end of the film; since all these things require a certain level of organization and order. Logically, there would be several such places, at the intersection of the priority agricultural areas of the previous year and the former industrial/mining hubs of the United Kingdom.

The dissolution of the centralized state seems inevitable for several reasons in the months following this event. First, Ruth is later seen buying rats in the street (an intertitle mentions a year after the attack), which suggests that the crisis is likely worsening, even reaching its peak in some parts of the country. The country's choice of a counterproductive rationing program, and the loss of this capacity, seems to irreparably compromise the role of traditional institutions. The film no longer broadcasts any government messages after the last one before the September-December 1984 harvest. The final scene before the film's narrative jump of nearly a decade reveals something extremely interesting: people are working with tools, some even wearing safety glasses, but no tractors. There are no soldiers in sight either. When we think back to the 1984 harvest scene, it's a completely different world: people dying in the fields, working with their bare hands and a few vehicles, under military supervision.

Clearly, the effort seems far more coordinated, productive, peaceful (even if the people appear exhausted), and above all, voluntary. Another world seems to be emerging. The world ten years later shows no national coordination, despite the presence of soldiers. It looks more like a coordinated effort at the county or perhaps regional level, something perhaps more resilient, coordinated, and maybe even a little more humane (with the famous school scene in particular).

We can imagine an uneven consumption of 10,000 barrels per day over these 58 days, totaling 0.58 million barrels. Given that the March-May period is crucial for agriculture in the UK, an effort will be organized, even if it is difficult due to the current circumstances.

Despite these chaotic scenes a year after the attack, the film presents an ambitious demographic projection a decade later: a minimum of 4 million inhabitants and a maximum of 11 million. These figures are discussed at greater length in my next essay, but they imply the accomplishment of many things during the first year, as illustrated by the simplified diagram above. We also need to imagine how governance could have emerged between the gradual collapse of the centralized state and the rise of new structures. Here is a diagram of that as well.

### ***The magnitude***

It would be difficult to contradict the scenes in the film: it's a famine, potentially "terminal" in some regions, probably. I explain quite frankly what can happen in such a case in the following essay: *With the collapse of the food distribution system, people had few options left for survival. What had likely been available for some time in certain areas was "sawdust bread" (or a mixture of flour and sawdust) to avoid consuming too much grain, if a distribution system at all survived the chaos. [...] To survive, many people in some areas probably resorted to eating rats, dogs, cats, and horses, if any were still available. In some areas, livestock may have suffered heavy losses. They would also have to eat grass and acorns like Ruth if food was scarce. They might also have eaten mushrooms, sloes, and other plants. Some probably tried making "bark bread" from the inner bark. The terminal famine, combined with the collapse of centralized governance, was brutal because the process itself was likely extremely uneven across the country and between communities. Regarding cannibalism, and contrary to popular belief, it is extremely rare, even in the worst recorded famines; it is generally committed by extremely isolated groups or individuals with no other means of support. [...]*

The question is rather whether the phenomenon is widespread across the entire United Kingdom or only in certain specific regions. A widespread impact makes organizing and



## ***"Finishing the year 1985?" from May 26, 1985 to December 31, 1985***

How did the survivors manage to finish 1985, and what if there are up to 11 million survivors 10 years later? We still have 700,000 barrels of our previous national stockpile. To finish the year, this means we have a little over 3,000 barrels per day. Since this was a hypothetical stockpile for this experiment, and the film never mentions it, it's perfectly logical that it could be higher. A mechanized harvest seems essential to finish this year, alongside the implementation of new agricultural methods (animal traction, manual plowing, etc.). Several solutions appear to be necessary:

- Strict rationing in agricultural regions to conserve gasoline in preparation for the major grain harvests between June and August
- Manual labor (or animal traction) to prepare the fields at the end of the year
- A restart of oil production at the beginning of 1985, even at a low volume
- The reintroduction, starting in 1985, of old coal-fired agricultural vehicles

For 1984, it was important to deploy a large number of agricultural vehicles due to the price lag behind the harvest and potential constraints on farmland. The idea here is to smooth out production to finish the year, while still relying heavily on manual labor. The plan is therefore to mobilize vehicles while minimizing their use. We can thus take as a reference the figure used for non-agricultural vehicles (0.306 barrels/day). 700,000 barrels divided by 218 days gives 3,200 barrels. This volume potentially represents 10,500 vehicles. If possible, coal-fired vehicles will be mobilized where available. The logical transition is therefore:

- Reinstatement of animal traction and manual labor ("hoe-farming") implemented from the beginning of 1985, or even earlier, to save fuel where possible.
- Limited use of gasoline after May 1985, with a peak between June and August 1985 for the grain harvest.
- The gradual increase in the use of animal traction and manual labor ("hoe-farming") during 1985; the idea being that animal traction would become dominant in the coming years
- Vital redevelopment of gasoline to ensure the mechanization of large harvests or major agricultural work from 1986 onwards

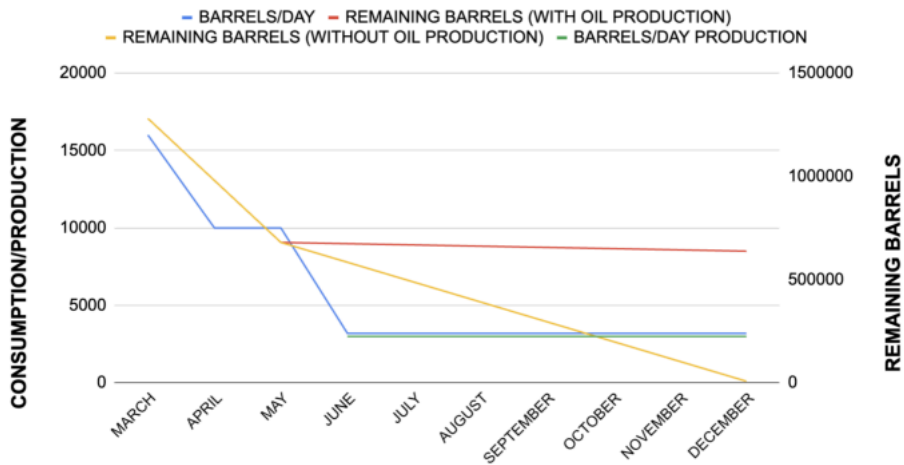
As a reminder, the test figures were intentionally high to account for significant constraints; it's obvious that not every vehicle uses that much fuel daily, even under difficult conditions. However, the aim is to remain consistent with the framework developed earlier. Based on this figure, it would be reasonable to expect oil production of 3,000 barrels per day in 1986: Wytch Farm and North Sea, to a very limited extent. This wouldn't necessarily be used directly, but at least rationed for harvesting/field work and minimal logistics between counties/regions.

As mentioned above, a governance structure must be established: it is necessary to coordinate populations, organize a harvest, work together, and also manage food insecurity in many regions. This model should logically emerge in regions at the intersection of industrial/mining hubs and agricultural areas: food production and the maintenance/revival of vital industries for the coming decade. It is therefore not illogical to assume that this model is neither linear nor instantaneous. The end of failed centralized governance does not signal the end of cooperation between individuals, particularly those formerly integrated into state institutions, at various levels. As illustrated by the model above, this process is logically underway, with the merging of urban and rural populations, and the emergence of authority

figures alongside these same populations; this has been the case for at least a year. The same applies to a successful harvest: the population must already have been working in agriculture for several months.

In conclusion, here is the energy curve required with a gasoline production boost to around 3,000 barrels per day during the spring of 1985, with a double comparison: barrels available with production and without production. A crash is inevitable without production, especially if logistical difficulties are more significant. Therefore, resuming production with a gradual increase over the decade is the logical course of action.

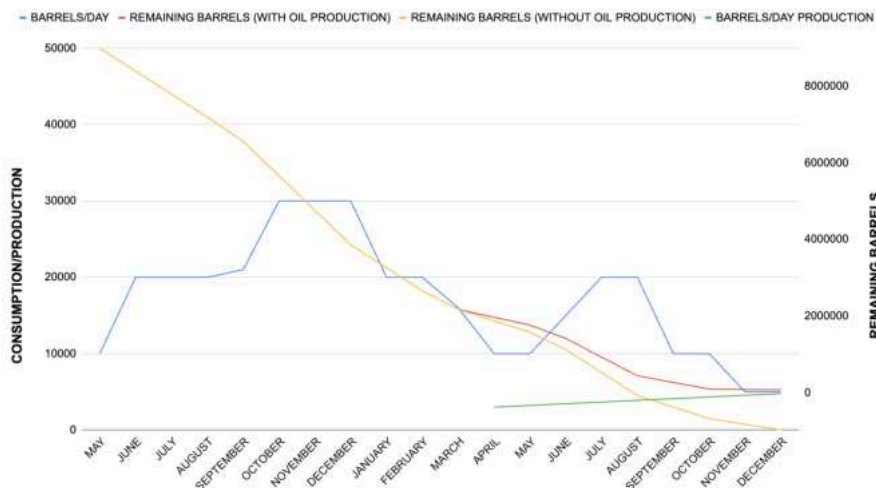
### OIL CURVE "ENDING 1985"



An alternative consumption curve for the first year is also proposed with the following parameters:

- Production was reduced from 40,000 to 30,000 barrels/day for the September-December 1984 harvest.
- Oil production restarted in March 1985, increasing from 3,000 to 5,000 barrels/day by the end of 1985.
- Increase in the volume of gasoline consumed (around 20,000 barrels/day) for the agricultural season June-October 1985

### OIL CURVE "ENDING 1985" ALTERNATE

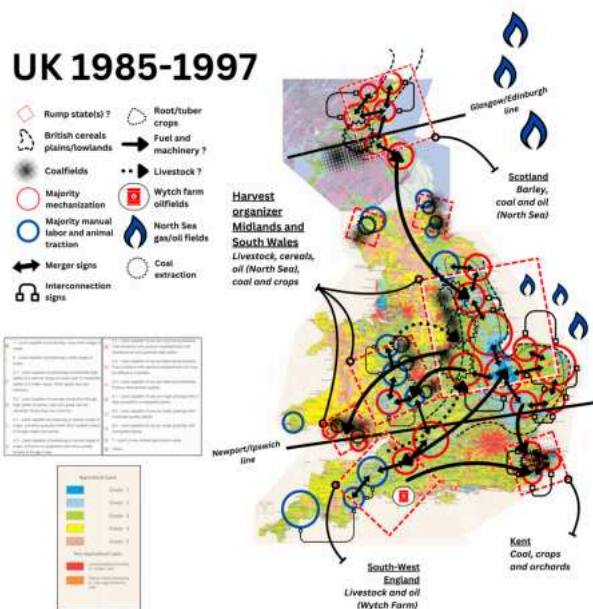


National coordination will also be necessary, taking into account the risk of fragmentation of the British national territory. The most appropriate (and logical) approach seems to be the following:

- Maintaining local agricultural specificities (something difficult to modify due to the specialization of the agricultural landscape at the time)
- One or more zones with combined agricultural capacities superior to other regions, and therefore having the legitimacy to coordinate harvesting at the national level

The following diagram is proposed, designating the South Wales to Midlands region as the driving force. This seems logical given that this geographical area potentially concentrates (in addition to its central location): the majority of remaining industrial and mining infrastructure, was historically the most densely populated, and possesses the most critical pre-war agricultural landscape (particularly the cereal-growing East) and significant agricultural diversity (livestock, vegetables, fruit, etc.). The map also identifies the logistical, energy, and material flows necessary for the success of this harvest, and all subsequent ones.

Logically:



- Gasoline and machinery primarily destined for the East of England and Scotland for the cereal harvests
- Animals were also transferred to the East to compensate for the difficulties related to restarting oil production (plowing problems).

The map also helps to identify changes in agricultural practices: crucial maintenance of mechanization in cereal plains (in all geographically eastern regions) and, on the contrary, development of “hoe-farming” and animal traction (where possible) in regions more focused on livestock farming (more in the West and Southwest).

Key points of the period:

- Mandatory rescue of the 1985 summer harvest with continued mechanization in cereal-growing regions and supra-regional coordination despite the institutional context: guaranteed food to get through the winter, to remotivate the survivors and to legitimize the new forms of authority
- Transition towards new forms of governance between supra-regional cooperation (harvest periods, energy and food flows) and partial autonomy at the regional level
- Maintaining minimal mechanization for cereals and implementing manual techniques where possible (for example, “hoe-farming” for potato cultivation)

## Epilogue

The absurdity of Duncan Campbell's reasoning is perfectly illustrated by the first year of the film *\*Threads\**. He who seems to think that making collective decisions, even difficult ones, in times of crisis is an expression of mental disorder or even dystopian totalitarianism, that

social cohesion is secondary in times of crisis, that one must accept the inevitable, is brutally refuted by the film considered the most realistic on the subject. The arguments developed in his book—the futility of efforts at organization, cohesion, and governance—are glaringly contradicted by the poor choices of the fictional government. These poor choices demonstrate more than ever the relevance of sound choices and collective decisions. It's a cruel irony when you consider that the film probably drew most of the intellectual material for its screenplay from his book \*War Plan UK\*.

The United Kingdom was in a dire situation at the end of May 1985: no sign of improvement in the food distribution system, no paths laid out for new forms of governance on screen, and a country utterly devastated (cities and infrastructure alike). But the scene before the narrative leap, with men and women working together, deliberately and in a coordinated manner, to carve furrows in the soil with hoes, shows that something was happening. The hypothetical reconstruction of the ten years leading up to the film's final scenes will once again demonstrate that Duncan Campbell's (and by extension, the film's, since it also drew on the same book for the elements necessary for its narrative) conspiratorial thinking, nihilism, and cynicism are dead ends: everything that the film and Duncan Campbell reject at their core will ultimately have been necessary to finally see the light at the end of the tunnel and allow for the existence of the film's final scenes. With a touch of humor, we can summarize in the form of a table the existing explanations for what might have happened during the first year of this film:






Prism	Reasoning	Validity of the reasoning
Threads	JOKER	✗
Intellectuals	The film is realistic, therefore it is realistic	
🙄	The scenes with Ruth simply imply that there is less to eat.	
Fanbase	No sun = No food	
Exegetical method	Articulation of an isolated and ambiguous scene with a climatic phenomenon and governance choices shown in the film	✓

## United Kingdom 1985-1994: Explaining the narrative leap in *Threads* (1984)

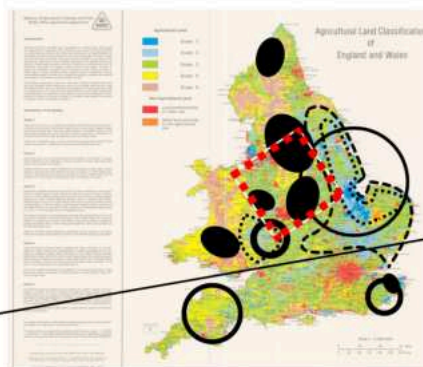
*Titre original - UK 1985–1994 : explaining the narrative jump in Threads (1984)*



### THREADS' GEOGRAPHY – Wales and England – 1985-1997

-  Rump state?
-  Coalfields
-  British cereals plains
-  Crops producers
-  Root/tuber crops

Newport/Ipswich line



*The film ends the first year after the nuclear attack with catastrophic images: famine, societal collapse, military violence, the complete disappearance of mechanization... For narrative reasons, the film does not explore this period and instead*

*jumps forward almost 10 years. By this point, the country seems to have regained some stability, and 13 years after the nuclear attack, coal and industry are making a limited comeback. Surprisingly, the film offers no explanation for such essential issues as agriculture, governance, and society. What you are about to read is an attempt to reconstruct this unexplored period.*

In my previous article "*United Kingdom 1984-1985: analysis of the fuel crisis and societal collapse in Threads (1984)*" The idea was to understand how the UK collapsed as a united

country in the year following the nuclear attack depicted in the film *Threads*, and thus explain the jump between one year and ten years later in the film. The scenes ten years later show a country reduced to small, manual-labor farming communities. A short scene shows children learning English with an old VHS tape, as well as some sort of practical lesson where they are tasked with recycling clothes. All of these things require a certain level of organization and vision. Acquiring a television, plugging it into an electrical grid (which has to be there in the first place), and inserting an old VHS tape to teach children the basics of English is not something that was done by desperate and stupid people. Then, the film shows coal being reintroduced on a "larger scale" only 13 years after the nuclear attack as a source of power and street lighting; and with a certain social and organizational cohesion because we see soldiers in the ruins, we hear a radio playing music, we see the corpses of looters hanging and a hospital.

To explain this gap, something inevitably happened to the country to bring about this level of fragmentation and "loss" of knowledge (or rather, dormancy). The country was a major coal producer in the 1980s. Even if many people die, knowledge doesn't disappear for no reason. Neither do coal and machinery. The only explanation is that at some point, all forms of centralized governance collapsed, leading to the impossibility of operating industrial infrastructure on a large scale. Hence the hypothesis of a "harvest failure" as the breaking point between March and May 1985, with the inability to operate much of the industrial infrastructure for an extended period. The most logical explanation is that for a decade, people struggled to rebuild and were unable to organize large-scale industrial tasks.

Fuel was indeed a pretext for understanding how governance had to cope with all the constraints of the post-nuclear war era, and also why choices are crucial in the face of such a catastrophic event. Could the UK in the film *Threads* have easily recovered? Of course not. But was the country's complete collapse inevitable? No, not that either. In fact, it was the interplay between poor decisions (particularly the decision to link food to work instead of a fair rationing system) and logistical constraints that brought the country to a standstill between 10 and 12 months after the attack.

The fact is that the UK's collapse in *Threads* had nothing to do with fuel, but only with a cascade of failures that lasted a year and culminated in the endpoint of March 1985. Unable to construct a new collective narrative after the UK's destruction, the government focused on a simple survival strategy and a clear shift in priorities toward the strongest (or most productive). The social contract was destroyed. People were competitors. And when it became impossible to continue a doomed "work-for-food" program after the failed harvest, the end was inevitable. What remained was a completely fragmented country. The next big question is: what happened between 1985 and 1994?

### ***March-May 1985: the breaking point***

The scene in *Threads* opens with a telex indicating that it is 10 months after the attack. The scene begins with several close-ups of wheat stocks and a soldier inside a barn overseeing the harvest. Then you hear gunshots, Ruth and others fleeing with grain, you can hear a soldier from a helicopter ordering people to return and firing, and then you see Ruth crying and desperately trying to crush grain to feed her baby. What we see around her is not a good sign. The baby appears perfectly healthy, but you can spot a cup with a spoon, some grass (perhaps for some kind of "herbal tea"), and acorns. Ruth is seen a few minutes later (an intertitle

mentions 1 year after the attack) buying rats from a man on the street. All these clues indicate that in March 1985, the UK was tragically in the grip of terminal famine.



With the collapse of the food distribution system, people had few options left for survival. What had likely been available for some time in certain areas was sawdust bread (or a mixture of flour and sawdust) to avoid consuming too much grain, if any distribution system at all survived the chaos. The authorities' inability to maintain the work-for-food program led to the abandonment of all coordinated efforts in urban and rural areas under national direction, while simultaneously new coordinated efforts necessarily emerged on a more local, and above

all, more sustainable scale. To survive, many people in some areas likely resorted to eating rats, dogs, cats, and horses, if any were still available. In some areas, livestock may have suffered heavy losses. They would also have to eat grass and acorns like Ruth if food was scarce. They might also have eaten mushrooms, sloes, and other plants. Some of them probably tried to make "bark bread" from the inner bark. The terminal famine, combined with the collapse of centralized governance, was brutal because the process itself was likely extremely uneven across the country and between communities. Regarding cannibalism, and contrary to popular belief, it is extremely rare even in the worst recorded famines; it is usually carried out by extremely isolated groups or individuals with no other means. But this difficult period was not uniform and constant: as in historical cases, hardship likely coexisted with several pockets of relative stability across the country. The fact is that the central food distribution system collapsed while new ones were probably emerging simultaneously, allowing for transitions in several regions.

What could have been the justification for the "work-for-food" program? Several answers are possible. The fact is that the true extent of the destruction was probably underestimated by the contingency plan. When the authorities discovered the scale of the situation in the days following the attack, their options were extremely limited, as implementing a traditional rationing system was difficult. A traditional rationing system would have required distributing ration cards/books to people before the attack—something that wasn't done. Could this still have been organized in the circumstances? From my perspective, yes, even if it was difficult. The fact is that the implementation of the "work-for-food" program was probably decided not because of logistical or ideological constraints, but because the authorities (unfortunately, as in many historical cases during major upheavals) were more concerned with maintaining order and keeping people under control, and because they believed it was the best way to preserve pre-war economic, agricultural, and societal systems. The authorities were, in fact, reluctant to admit that the best solution was to adapt to the realities of the post-nuclear war era, not to force those realities into conformity with pre-war expectations. This was impossible, as all past systems relied on dwindling resources (like gasoline) or destroyed infrastructure. The best example is the use of fuel to maintain highly mechanized agriculture, when the authorities should have been moving as quickly as possible toward more resilient and sustainable systems.

The final scene of Year 1 in *Threads* shows people working in the fields as the sun's rays return after the effects of nuclear winter have dissipated in the atmosphere. Three things stand

out compared to the harvests of September-December 1984: people are working with tools, some even wearing protective goggles, but no tractors. There are no soldiers in sight either. When you think back to the harvest scene in 1984, it's a different world: people dying in the fields, working with their bare hands and a few vehicles, under military guard. I wouldn't say things are better, of course (the people in this final scene before the time jump are exhausted), but it feels more peaceful in a way, like the scene 10 years later before Ruth collapses in the fields.

Noting that before she died, Ruth was put to bed with a blanket: something very simple, in fact, but also evidence of a certain concern for a vulnerable person, something that desperate, brutal, and senseless people would not have done. And thinking back to the harvest scene in 1984, something even more astonishing given that Ruth, who was pregnant, was forced to work in the fields and collapsed, abandoned by everyone, and gave birth alone. From a societal perspective, society thus seems more "caring" than when there was centralized governance. This has nothing to do with utopia, but with the fact that closer human communities are generally more sustainable and resilient in a world of scarcity.

Of course, the fate of many people and communities between March and May 1985, and several months and years later, was far from simple. Some initial successes were not repeated in subsequent years, leading to violence within some communities. Rebuilding a sustainable agricultural system proved extremely difficult in some areas more severely affected by the nuclear attack than others. The madness and violence of some disaffected former soldiers, and even some survivors themselves, meant that many communities were likely subjected to regular harassment and threats, leading in some areas to the failure of even the most basic attempts at reconstruction of subsistence farming. And even with goodwill and good local leaders, there is no guarantee that food can grow, even under the best conditions. The situation was therefore likely extremely uneven across the country.

Because Ruth, like many people, moved from Sheffield to Buxton during the exodus crisis, she most likely settled in the countryside around Buxton or elsewhere in the East. The return to manual farming, combined with a lack of transport, meant that people probably moved en masse to small villages or farming towns. Even though small towns like Buxton weren't hit by nuclear bombs, they faced too many challenges: an influx of refugees, a broken power grid, dwindling food supplies...

Before the March-May 1985 crisis, the country likely experienced numerous localized collapses, with small-town authorities struggling under the burden and pressure of providing aid to an overwhelming number of refugees. It is worth noting that the Buxton area is surrounded by several major cities that were devastated: Manchester to the north, Sheffield to the east, Stoke-on-Trent to the southwest, and Nottingham and Birmingham to the south.

### ***The organization of the crucial harvest of the summer of 1985***

How did the survivors manage to finish 1985, and what if there are still up to 11 million survivors 10 years later? As indicated in the previous experiment, we should have had 700,000 barrels remaining from our previous national stockpile. To finish the year, this means we have a little over 3,000 barrels per day. Since this was a hypothetical stockpile for this experiment, and the film never mentions it, it's perfectly logical that it could be higher. A mechanized harvest seems essential to finish this year, alongside the implementation of new agricultural methods (animal traction, manual plowing, etc.). Several solutions appear to be necessary:

- Strict rationing in agricultural regions to conserve gasoline in preparation for the major grain harvests between June and August
- Manual labor (or animal traction) to prepare the fields at the end of the year
- A restart of oil production at the beginning of 1985, even at a low volume
- The reintroduction, starting in 1985, of old coal-fired agricultural vehicles

For 1984, it was important to deploy a large number of agricultural vehicles due to the price lag behind the harvest and potential constraints on farmland. The idea here is to smooth out production to finish the year, while still relying heavily on manual labor. The plan is therefore to mobilize vehicles while minimizing their use. We can thus take as a reference the figure used for non-agricultural vehicles (0.306 barrels/day). 700,000 barrels divided by 218 days gives 3,200 barrels. This volume potentially represents 10,500 vehicles. If possible, coal-fired vehicles will be mobilized where available. The logical transition is therefore:

- Reinstatement of animal traction and manual labor (“hoe-farming”) implemented from the beginning of 1985, or even earlier, to save fuel where possible
- Limited use of gasoline after May 1985, with a peak between June and August 1985 for the grain harvest.
- The gradual increase in the use of animal traction and manual labor (“hoe-farming”) during 1985; the idea being that animal traction would become dominant in the coming years
- Vital redevelopment of gasoline to ensure the mechanization of large harvests or major agricultural work from 1986 onwards

As a reminder, the test figures were intentionally high to account for significant constraints; it's obvious that not every vehicle uses that much fuel daily, even under difficult conditions. However, the aim is to remain consistent with the framework developed earlier. Based on this figure, it would be reasonable to expect oil production of 3,000 barrels per day in 1986: Wyth Farm and North Sea, to a very limited extent. This wouldn't necessarily be used directly, but at least rationed for harvesting/field work and minimal logistics between counties/regions.

As mentioned above, a governance structure must be established: it is necessary to coordinate populations, organize the harvest, work together, and also manage food insecurity in many regions. This model should logically emerge in regions at the intersection of industrial/mining hubs and agricultural areas: food production and the maintenance/revival of vital industries for the coming decade. It is therefore not illogical to assume that this model will not be linear or instantaneous. The end of centralized governance does not signal the end of cooperation between individuals, particularly those formerly integrated into state institutions, at various levels. As illustrated by the model above, this process is logically underway, with the merging of urban and rural populations, and the merging of authority figures with these same populations; this has been the case for at least a year. The same applies to the success of the harvest: the population must already have been working in agriculture for several months.

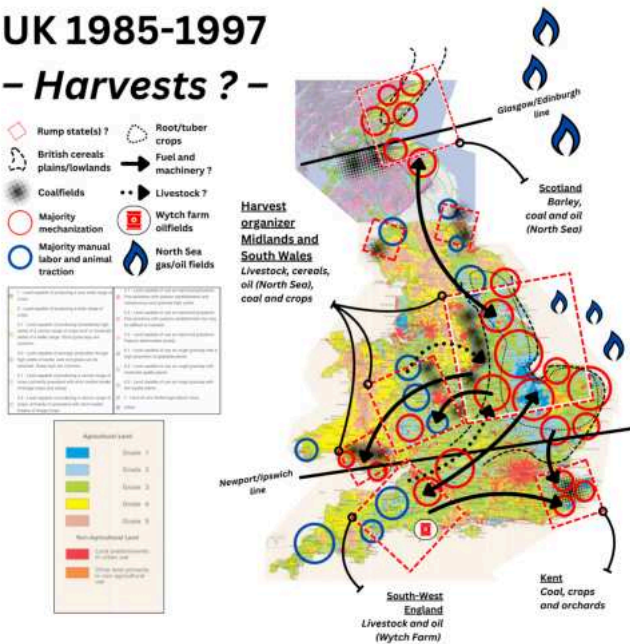
There will also be a need for possible national coordination, taking into account the risk of fragmentation of the British national territory. The most appropriate (and logical) approach seems to be the following:

- Maintaining local agricultural specificities (something difficult to modify due to the specialization of the agricultural landscape at the time)

- One or more zones with combined agricultural capacities superior to other regions, and therefore having the legitimacy to coordinate the harvest at the national level

The following plan is proposed, designating the South Wales to Midlands region as the driving force. This seems logical given that this geographical area potentially concentrates (in addition to its central location): the majority of remaining industrial and mining infrastructure, was historically the most densely populated, and possesses the most critical pre-war agricultural landscape (particularly the cereal-growing East) and significant agricultural diversity (livestock, vegetables, fruit, etc.). The map also distinguishes between agricultural areas that should remain mechanized (especially the cereal-growing East) and those that logically should prioritize manual labor.

### UK 1985-1997 - Harvests ? -

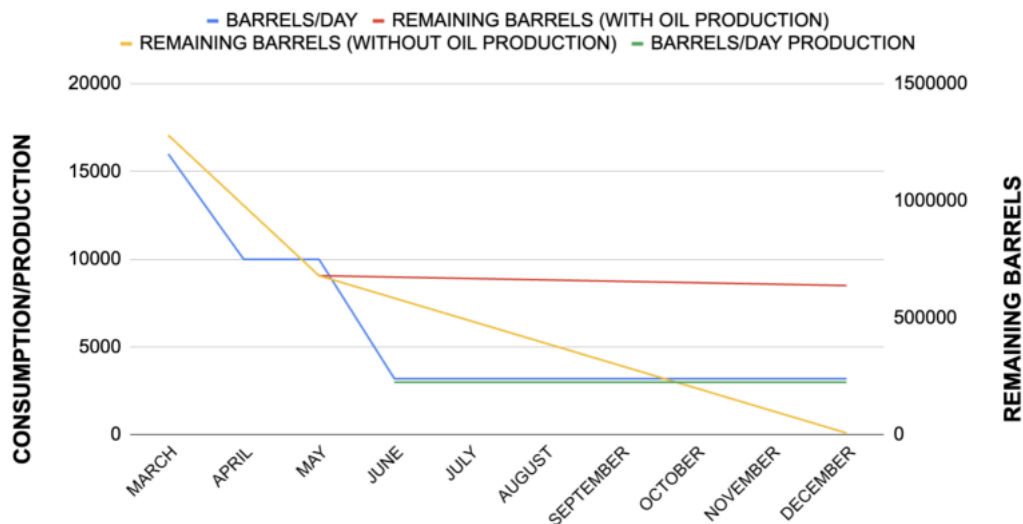


The map also distinguishes between agricultural areas that should remain mechanized (especially the cereal-growing East) and those that logically should prioritize manual labor.

In conclusion, here is the energy curve required with a gasoline production boost to around 3,000 barrels per day during the spring of 1985, with a double comparison: barrels available with production and without production. A crash is inevitable without production, especially if logistical difficulties are more significant. Therefore, resuming production with a gradual increase over the decade is the logical course of action.

without production, especially if logistical difficulties are more significant. Therefore, resuming production with a gradual increase over the decade is the logical course of action.

### OIL CURVE "ENDING 1985"

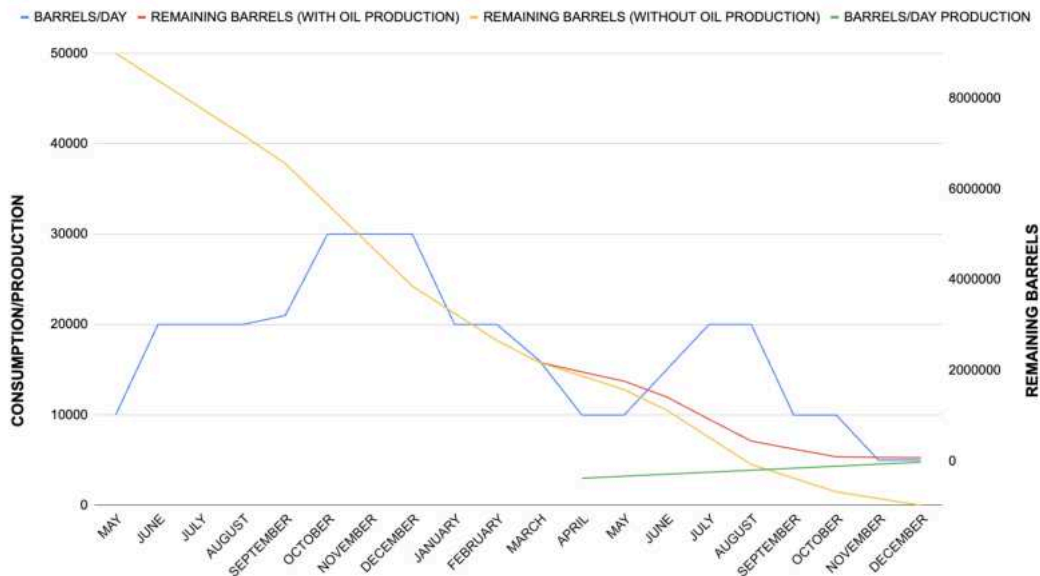


An alternative consumption curve for the first year is also proposed with the following parameters:

- Production was reduced from 40,000 to 30,000 barrels/day for the September-December 1984 harvest.

- Oil production restarted in March 1985, increasing from 3000 to 5000 barrels/day by the end of 1985.
- Increase in the volume of gasoline consumed (around 20,000 barrels/day) for the agricultural season June-October 1985

### OIL CURVE "ENDING 1985" ALTERNATE



### *Ruth settles in a farming community*

After the first year, Ruth leaves with her baby, like many others, what remains of the small towns in the country. The last scene Ruth is seen in before the time jump takes place in a ruined street where she has tried to buy a rat, meaning she could have moved to what remains of a pre-war, destroyed town. Although she is what many consider a "burden" during a time of crisis, she was apparently accepted with her baby, contradicting many commonly held narratives. Otherwise, Ruth and Jane's fate would have been worse than that of Bridget O'Donnell and her children during the Irish famine. At this point, she is doing what others are doing: farming land in a small agricultural community, while trying to care for her daughter.

With only basic tools, and without fertilizers, tractors, or agrochemicals, times were tough. Since many people had little to no experience in agricultural production, it likely required a great deal of trial and error. Because of the severity of the March-May 1985 crisis and the unpredictable behavior of some survivors and military personnel, people were probably more inclined to live in smaller, more sustainable communities (at the village/county level), where trust, protection, and cooperation mattered more than societal and industrial progress.



The fact that some military personnel or government officials might have taken charge of some of these communities does not change the fact that it is impossible to start an electrical grid, or even rebuild a "low-level" industry, without machinery or a power source; and more importantly, without sustained food production over the years. It was difficult to do more than

survive—at least initially—especially when disease or crop failures could decimate the population; and without national organization and probably only hyper-localized remnants of the RSGs (Regional Seats of Government). Any agricultural successes that were achieved were likely the result of a combination of past agricultural expertise (even if it was grappling with the collapse of mechanization and had to adapt), the merging of the former authorities with local populations (to coordinate/lead), geography, the diversity/landscape of pre-war agriculture, soil, seed availability, and the availability of people.

Due to the constraints of the modern British agricultural landscape, highly specialized in certain regions (as early as the 1980s), the lack of agricultural knowledge among some survivors, particularly those in cities, and the urgent need to coordinate a harvest under precarious conditions a year after the attack, it was essential to be able to coordinate on a larger scale very early and very quickly, perhaps even before March-May 1985: at a minimum, at the county level in some parts of the country, and probably at the regional level in others. Above all, a governance structure had to emerge to allow the nearly 4 to 10 million people (figures from the film) to survive a decade later. The logical model that must have emerged was that of agricultural communities relatively independent in their day-to-day affairs, but interdependent with others regarding agricultural production, at least at the county or regional level. This requires the establishment, both before and after March-May 1985, of a new, decentralized form of governance to coordinate communities at the county/regional level. As detailed later in the article – and because the film offers no obvious transition mechanism – the logical solution would be that a short-term “rescue” operation was organized to organize/coordinate the 1985 harvest by credible institutional actors on the ground (military personnel, civil servants, agricultural experts, and, exceptionally, prominent figures) capable of working together (what could be called “institutional resilience”), and that this embryonic organization was then able to persevere, structure itself, and grow throughout the decade.

### *Life in an agricultural community*

Even if, from an economic perspective, it was a kind of return to the "medieval/pre-industrial era," we are talking about 20th-century men and women plunged into a regressive world in less than a year. We can only speculate about how people might have lived and worked with one another. The collapse and disappearance of pre-war society was likely extremely difficult for people accustomed to holding high positions of responsibility, from the upper classes, or those solely engaged in intellectual and clerical jobs. Unfortunately, the pre-war social fabric was no longer there, meaning that many people without practical skills were heavily dependent (at least for a long time) on others and what remained of the social fabric for their basic needs; inevitably leading to frustration and resentment when those of lower status were more useful and received more recognition.

Children were probably the most affected by what happened next. With the collapse of many societal norms, children were essentially expected to work like their parents, leading to widespread illiteracy and the erosion of childhood. Regarding the status of men and women during the lost decade, it is unlikely that British society reverted to a patriarchal order, and the scenes in the fields depict a shared burden. The surviving women in our context were largely educated



and aware of their abilities. Of course, this did not preclude exploitation and abuse, as seen in the scene where Ruth tries to buy rats and is forced to sell herself to feed her baby. Based on what we see 13 years later, there are very young children, meaning some of them must have been born during the lost decade. Marriage or not, men and women would inevitably have relationships. The problem for many women on this subject was probably an unexpected pregnancy (given the total absence of contraception) and the high risk of mortality for pregnant women and their newborns.

Given that the country was historically a common law country, people could easily have applied these principles in their daily lives, as close-knit communities likely relied on customs and unwritten laws. Precedence carries more weight in smaller communities when resolving conflicts. The absence of a rigid criminal/civil code also allows for adaptation when new situations arise, which is impossible when the law is written and requires amendments.

Apart from these issues, their society was probably for a time a mixture of pre-war and post-war customs. It should be noted that perhaps some celebrations also survived if they were related to agriculture, such as "Plough Monday" and "May Day," but only in a much smaller form.

What would have become of the duty to remember the victims of the atomic bombings and the events of the first year? Historically, societies that have experienced traumatic events (the Holodomor, the Shoah, the bombings of Hiroshima and Nagasaki, the famine in Bengal, or collaboration with Nazi Germany) often refuse to discuss these subjects for several generations. The reasons are numerous: shame and guilt among survivors/perpetrators, painful memories, trauma, the inability to explain the unthinkable, shock... In our context, it would therefore be unlikely that the subject would be publicly discussed during the ten years since, or even that any commemorations would take place. The subject would probably not be brought up or discussed with children. Perhaps it would be discussed among survivors of the event. The society depicted on screen is engaged in a difficult process of reconstruction and the need to move on from the past, which would have limited the survivors' willingness to speak about it. This is a topic that could revive difficult-to-manage disagreements among survivors (particularly the "work-for-food" program) in a context where a massive collective effort is required.

All these factors combined can explain why Jane is the way she is in the film. A difficult childhood in a small farming community. The lack of a proper and varied diet—a very likely occurrence in the early years of many farming communities that had to rebuild everything—invariably leads to developmental delays in young people, with various learning and memory problems. In the absence of a formal education system and because agriculture was prioritized in the early months (and years), work was probably given far greater priority than formal education. Under normal circumstances, children can learn to speak easily because they hear adults speaking and essentially imitate what they do. The fact is that many people speak their native language perfectly well despite being illiterate. The selective mutism of some survivors could have led to a lack of meaningful interaction with the younger children, aside from commands and guidance in their work ("do this," "give me"... somewhat similar to what Jane and other children say later in the film, "Give! Give!", "Baby's coming!"), leading to the "deterioration" (in the sense of verbal form only, not the speaker's intellectual capacity) of modern English. Also noteworthy, regarding Jane, is the loss of her mother when she was young (10 years old); while considering that Ruth probably did everything she could for her. You don't hold your children's hands when you die if you don't care about them.

Regarding her intellectual abilities, speaking broken English is not evidence of intellectual disability. When someone is capable of catching a rabbit alone and without tools, working in the fields, performing "industrial" tasks (even if they are as basic as recycling clothes; which still requires dexterity, receiving/understanding orders, and working as part of a team), and planning a bread heist with others, this clearly points to adaptability rather than intellectual impairment. Her apparent coldness likely has more to do with what she may have witnessed during her childhood: widespread illness, hunger, lack of meaningful interaction, working from a very young age, possibly violence... Like many people in those troubled and difficult times, she was accustomed to the harsh realities of the new world. To conclude on this point, the fact that she took clothes and belongings from her deceased mother has little to do with "grave robbery." To be clear, we're talking about a comb, a spoon, and a scarf. Something that can hardly be considered the act of desecrating a dead person; especially when you consider what some soldiers during the Napoleonic Wars did to their deceased comrades, even stealing their gold teeth and jewelry. It should also be noted that these were his mother's belongings, which she had inherited. In conclusion, in many cultures, death is not considered as sacred and important as in our world. This does not make people any less human.

Addressing the final scene of the film *Threads* is also important. Contrary to popular belief, miscarriages and stillbirths are common occurrences, even by modern medical standards. The nuclear attack took place over ten years prior, and Ruth was already pregnant before that event. Jane's birth occurred several months later. Aside from her way of speaking English (something culturally specific and shared by other children; which in no way reflects on her intellectual abilities, which are, moreover, demonstrated on screen), Jane shows no outward signs of physical incapacity. Many things could have been at stake (and were intentionally left unaddressed by the film). For example, the complete lack of medical monitoring and ultrasound to assess the baby's health during the pregnancy. The fact that the "optimal" age for pregnancy is generally considered to be between 20 and 30 for women. Jane was only 13 years old when she decided to look for a hospital to give birth. It should be noted that the pregnancy is likely linked to her being assaulted by another boy after stealing bread. In conclusion, scientific logic would suggest that the woman who didn't give birth to a live child in the film is Ruth (she was probably irradiated during the bombing of Sheffield; this pattern would correspond to our knowledge of pregnant women in Hiroshima after the bombing of the city).

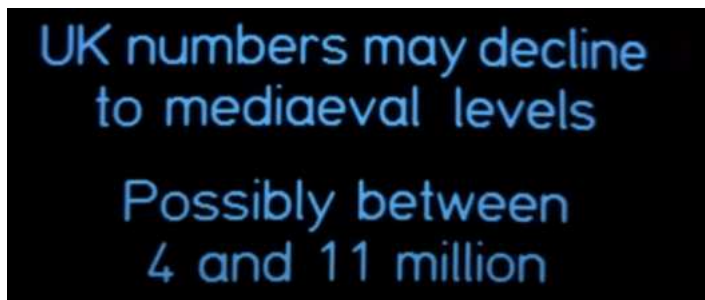
Regarding the evolution of language, what likely occurred is what we call in linguistics a "language evolution." All modern languages (French, English, German, etc.) have evolved over time. We thus had Old English used to write *Beowulf*, then Early Modern English (Elizabethan or Shakespearean English) to write *Hamlet*... Several factors can explain the emergence of "New English" at the end of the film: an economy of language (being more efficient in expressing what one wants or does), the cultural world in which the children grow up (where language is reduced to its simplest use: asking for something, giving an order, etc.)... Even though it's just one scene, what is shown to the children on TV during English class is very basic: "a cat... a cat skeleton." It's certainly much better than what existed (or probably didn't even exist) during the year of the UK's collapse and the lost decade that followed, but it's also difficult to maintain a language solely with a primitive grammar. You need books, stories, and meaningful interactions between pre-war people and growing children... All these things improve slowly, even with the best intentions. Rebuilding a "developed" form of English will take time.

### *What was harvested?*

Regarding what could have been produced at the "national level", my previous article, which used the 1983 cereal production figures (22 million tonnes) as an illustration, indicated that only 25% of the pre-war harvest had been harvested, i.e. about 5.4 million tonnes (net of seeds, losses...).

This quantity, of course, could have been higher and was sensitive to regional variations (some regions were probably able to harvest a large amount of grain even if the quantity decreased, while others were not; this also explains the uneven recovery and the collapse). This is a worst-case scenario for illustrative purposes (the amount could have been much higher, especially with less severe weather). Nevertheless, the entire system was dependent on cereals, the production of which was compromised even with better weather conditions: mechanization, fuel, processing... A missed opportunity to shift towards other crops.

Due to violence, disease, winter, famine, and the scarcity of medicine, it can be estimated that the minimum figure of 4 to 10 million people indicated in the film was reached between one and three years after the attack (out of 36 million survivors after the nuclear attack). Some of this harvest may have been hoarded or stolen during the collapse of centralized governance between March and May 1985. However, the presence of so many survivors a decade later logically implies a harvest in 1985 and subsequent years.



Regarding the 4 to 10 million survivors, it's worth noting the film's historical inaccuracy in referring to a medieval population level. The United Kingdom did not exist during the Middle Ages, and the first unified demographic and agricultural statistics date primarily from 1801. These figures more

accurately reflect England's population curve between the 16th and 17th centuries and the population boom during the Industrial Revolution in the 1800s. Medieval figures would more likely be around 2 to 4 million people (with a peak reached before the Black Death in 1348). The figure of 10 million survivors is interesting given the British historical context, as it aligns with the first signs of weakness in the agricultural sector in the 1800s, leading in 1846 to the repeal of the Corn Law (a grain law aimed at restricting imports into the United Kingdom).

From a purely logical point of view, what is shown on screen (namely the restarting of industrial and mining structures) implies a larger population than that of the Middle Ages for several reasons:

- First, because it involves the survival of a great deal of knowledge (industrial, technical, organizational, agricultural, etc.) that is difficult to sustain in a context of such a brutal, even near-total, demographic collapse. Four million people compared to the 1983 population (56 million) represents only 7% of the population. A more reasonable figure would be around 15-20%.
- In the film's agricultural context (a return to traditional methods and few tractors or combine harvesters), this implies a productive agricultural workforce to free up people for other tasks, something that seems more difficult with such a drastically

reduced population. For example, after the Black Death in 1348, the population of the United Kingdom only recovered to this level after the 1700s. In our context, there is therefore a risk that the population will stagnate at such a low level, limiting the possibilities for agricultural, societal, and technological expansion.

- Such a small population implies an extremely sparsely populated and therefore low-density territory, which inevitably risks severely limiting the survivors' ability to coordinate over long distances—a major problem for agriculture in the medium term, and something even more problematic for coordinating agriculture and coal production across large regions.

The collapse of centralized governance and therefore the disappearance of the need for bureaucratic and abstract objectives to be achieved by the RSGs and/or the British central government, although disastrous in the short term, has probably in fact been a "chance" for many people.

With the emergence of early forms of community and highly localized governance, and because the authorities (military and civil servants) merged with the local population during and after the crisis, efforts could have been made to secure what remained available for the next harvest. While this was unfortunately unfair to the most severely affected regions, the less impacted areas could have organized their own food security (especially during the famine) and focused on implementing realistic agricultural objectives, and above all, securing seeds for the coming harvest. It is also worth noting that agricultural cycles are not a single event but an intertwined process of multiple crops planted and harvested at different times of the year: grains, vegetables, fruits, and so on. Furthermore, many survivors were likely people already living in rural areas with useful agricultural knowledge, whereas, sadly, most of those who died were probably city dwellers.

To support this population, and to understand why agricultural systems (even subsistence farming) require a certain degree of organization and planning, let's imagine trying to feed everyone with cereals "on a national scale." This is utter nonsense in our context: the complete opposite of what we should be doing. Especially when it comes to implementing a



crop mix (cereals, vegetables, fruits, root crops, wild foods, etc.) rather than a cereal monoculture. However, cereals offer several perspectives for understanding an agricultural system.

There are several methods for calculating how many tons of seed are needed to produce a certain number of tons of grain. Due to the regression of the agricultural production system, it is more likely that yields will

be very inefficient at the beginning. Perhaps a ratio of 1 seed planted for every 4 seeds harvested in some very unproductive regions. With few tractors and combine harvesters, decades—even a century—of grain cultivation cannot be immediately adapted to manual labor.

Yields were expected to be very low, even insufficient, at first. Since the agricultural system was not designed for a sudden transition to manual cultivation (especially of cereals), many issues would present short-term problems, such as pest control and refining. A large workforce would be needed to produce these cereals. It can be estimated (whether for cereals or other agricultural products) that 15% to 25% of the harvest needed for the following year and that 60% to 70% of the survivors would be involved in agricultural work.

But the return of industry 13 years later in the film implies a solid agricultural base, something that cannot be achieved without a consistent level of food production, and more importantly: a functional social organization, coordinated efforts in labor, storage, and processing of the harvest; even at a low level. The film unfortunately avoids discussing this crucial topic by refusing to address the geography, tools, and possible crops.

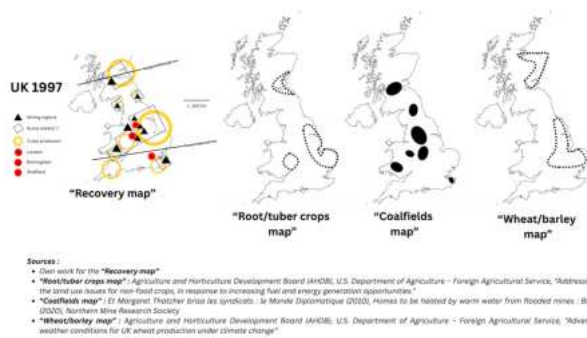
"Second harvest and subsequent harvests:

- No fertilizer
- No agrochemicals
- Crops susceptible to viruses, diseases and insects"



The fact is that the agricultural recovery most likely occurred in root/tuber/vegetable/legume growing areas: these are relatively easy to grow, produce, and store, are high in calories and good for nutritional needs, and are the best choice for rapid food production. Even with minimal effort, comfortable yields can be expected. Cereals are certainly important, but it is difficult to achieve high yields in a fragmented agricultural landscape without mechanized farming. What was probably done was to focus on

"low-complexity" crops in the early years, while gradually increasing and improving cereal yields. This map illustrates the reasoning for why this might have happened in the East of England or perhaps in Scotland around Edinburgh (historical agricultural diversity, expertise, locations where many efforts and people were most likely concentrated during the poor harvest between September and December 1984 in the film, immediate proximity to coal mines, etc.).



The map on the far left shows several possible locations for the film's final scenes. The three maps on the right (in the order of tubers/roots, coal, and wheat) illustrate the importance of East Anglia as an agricultural and coal-producing region.

Demographically, the population decline occurred relatively rapidly. Without a rapid stabilization of the population (such as a continued decline over the decade), the final scenes are implausible, because given the intensive nature of manual labor in agriculture attested by later scenes, the more people die each year, the less food is harvested, making it impossible to have surpluses and focus on non-agricultural tasks. A continued decline would also lead to serious problems in preserving knowledge over time.

The film appears to have been based on these elements from Duncan Campbell's 1982 book *War Plan UK*, taken from official analyses: *"These analyses all indicate a rapid national mortality rate well above 50%, given the methodological difficulties. The ultimate constraint on the population in the first few years after the attack will be the viable population level for subsistence agriculture, which does not appear likely to exceed, at most, twenty million. During this period, survivors will face high mortality from radiation sickness and epidemic disease, starvation and exposure, and probably armed struggle for available resources and social control. The elderly and the very young will have been virtually eliminated from the post-attack population, and few children conceived in the months before or after the attack will have a chance of survival. Part of the generation could be lost. The lowest population level could be reached three to eight years after the attack, after a decline below ten million—provided, of course, that accumulated fallout and atmospheric dust have not altered the ecosystem to the point of decimating potential agricultural production, even at the level of subsistence."*

The figure of 50% immediate casualties in a nuclear attack (28-29 million) seems extreme to us, as it would imply a massive attack targeting almost exclusively urban areas (from the largest conurbations to medium-sized cities). This, in our view, poses logistical problems from a military perspective, since an attack would involve infrastructure, ports, military bases, etc. Some conurbations might also require multiple strikes. In a previous work published on Medium under the title "[The consequences of a nuclear war : case study on 80s UK](#)", the figure of 20 million may already be very "theoretical" due to logistical constraints for military planners.

Furthermore, the apocalyptic vision strikes us as problematic. The book discusses armed struggle while simultaneously mentioning the existence of social control—concepts that seem contradictory. A survivalist world doesn't concern itself with social structures. While vulnerable people may be at risk of dying, the book seems to forget that this would primarily result from a lack of solidarity or protection for the most vulnerable. The book repeats an assertion, perhaps genuinely written, but problematic, about the inevitable death of young children after such an event, without providing any supporting evidence. The same applies to the concept of a lost generation.

The figure of 20 million people seems questionable to us, especially concerning an agrarian model based on primitive subsistence farming. It's somewhat similar to the pattern in the film: a figure that bears no relation to any geographical, agricultural, or material reality. The passage places considerable emphasis on the risks of cancer and leukemia, which would imply massive exposure of the entire UK population to radiation at critical levels. This is a reality that should normally primarily concern urban populations, unfortunately already heavily impacted by the bombings. The demographic model doesn't seem consistent with our historical knowledge: major demographic shocks generally occur in the immediate aftermath (1 to 3 years, for example), not 3 to 8 years later. The environmental issue is mentioned but without further detail.

As in the previous section, I am obliged to mention again the author's bias on his own subject; the summary is the best proof of this: *"Secret civil defense plans include closing roads to refugees, interning protesters and pacifists, and seizing food and fuel supplies. There will be no rescue or medical assistance for those trapped and dying as a result of a nuclear attack. Millions will die in areas targeted by nuclear attacks as a direct consequence of government civil defense policies."* This is an imprudent assumption when the book itself

strongly and in detail evokes the intensive discussions of the government of the time on all subjects, however difficult they may have been.

Regardless of all this information, the film remains the focus. And the film shows us activities and infrastructure (schools, coal, electricity, etc.) that will require: social coordination, governance, a functional society, rapid demographic stabilization, and above all, agricultural surpluses. The prevailing model is that of an agrarian system largely detached from primitive subsistence farming, and of a demographic curve that stabilizes during the early years.

Secondly, the requirement for stable food production for the later scenes means that an inevitable "positive loop" has occurred over the decade with several factors at play: improvement (even gradual) in food production, crop selection, seed conservation, re-development of a social fabric for coordinated work, transfer and conservation of knowledge, better storage...

Thirdly, the agricultural trajectory presented in the film seems almost insurmountable in such a context: a total loss of mechanization, no draft animals, and only the hoe as a visible tool at the end of the first year (as well as a decade later). A more realistic trajectory (detailed with the issue of tools and livestock in the following section; as well as in a later section concerning the possible agricultural redevelopment trajectory) seems necessary, based on the following four elements:

- At least one final mechanized harvest in 1985 (another perhaps in 1986), despite the likely surrounding chaos, in key cereal-growing regions (wheat as well as barley) to guarantee cereals that would allow farmers to more calmly face the shock of the inevitable demechanization due to the depletion or expiration of gasoline stocks.
- The need to maintain livestock (cattle in particular, and horses if possible) to guarantee the availability of animal traction necessary for plowing, itself essential for maintaining and then gradually rebuilding cereal yields, a subject detailed in the following section.
- Prioritizing root/tuber crops, as mentioned above, as a short-term "lifeline," particularly to overcome what could be described as a "logistical and organizational hurdle" during the March-May 1985 period, and in the long term within a context of gradual redevelopment of cereal yields.
- The need for governance and a society, undoubtedly under the aegis (as explained later) of past institutional actors

### ***Agricultural tools, livestock and crops***

The film remains largely silent on how the survivors worked in the fields and what tools they used (with the exception of the hoe). Yet, the United Kingdom has a history where agriculture has sometimes relied on considerable manual labor to produce food. Examples include the Women's Land Army, which mobilized women in the fields during the First and Second World Wars, and Victory Gardens during the Second World War. We will take some liberties with the film, particularly regarding the animals. The film is enigmatic about the fate of British livestock. Despite its possible decimation after the events of the first year, we believe it would be unreasonable to assume that none remained at all. They are essential for many large-scale agricultural tasks, especially plowing for wheat harvests. The presence of survivors a decade later and the existence of non-agricultural activities demonstrate that agriculture was not limited to primitive subsistence farming. Even though initially manual

labor in the form of hoe farming was undoubtedly very predominant in many regions for obvious reasons, it makes sense that the agricultural base was more robust than simple primitive farming, especially since the film itself mentions a population of between 4 and 10 million people, a figure that implies a solid agricultural foundation.

This last point compels us to discuss the viability of basic subsistence farming in the United Kingdom (as we understand it today). It does not appear viable to us for the geographical and physical reasons mentioned above with the maps: the country's configuration limits diversified agricultural development in many regions, a necessity in a context where survivors will need to make the most of agriculture to rebuild their lives.

The United Kingdom in the 1980s was not as agricultural as it had been in the past: regional specialization, a relatively small workforce, and a limited economic weight. The modern agricultural landscape bears no resemblance to that of the past. While in the past agriculture was practiced everywhere for obvious reasons, as with Scottish runrigs, this was no longer the case in the 1980s (and even today). To achieve this, it would be necessary to move tools, livestock, and seeds to unsuitable or long-uncultivated regions, which would be nonsensical. It would even require moving land or building new irrigation systems in areas with little or no agriculture, an unthinkable constraint in our context. We will have to cultivate agricultural land as it is: where it is fertile, where the crops, tools, skills, and livestock are located.

There is also, it seems to us, confusion between labor-intensive agriculture (our case here) and subsistence farming. For centuries in Europe, agriculture was not very mechanized but had moved beyond the subsistence stage. Subsistence farming is perfectly suited to agrarian contexts where the model is historical (or even cultural), but as its name suggests, it is about surviving: everyone is content with the produce of their own field. The figure of 4 to 10 million people on British soil, the physical constraints of the land, and the presence of non-agricultural activities on screen compel us to consider a labor-intensive model.

Regarding the workforce, the United Kingdom in 1983 had perhaps around one million people working in agriculture (farmers, farm workers, wives, administrators, managers, etc.), as evidenced by these statistics:

**LABOUR FORCE**  
On Agricultural Holdings  
**UNITED KINGDOM AND COUNTRIES**  
1979 to 1983 (at the June census)

Table 4.1

	Regular family and hired workers		Seasonal or casual workers (family or hired)			Salaried managers	Farmers, partners and directors (b)		Wives or husbands of farmers, partners and directors (b)	Total labour force
	Total (a)		Male	Female	Total		Whole-time	Part-time		
	United Kingdom									
1979	252,686	55,958	40,910	96,868	7,969	215,463	88,396	78,769	740,151	
1980	244,067	57,222	43,431	100,653	8,011	208,361	89,619	74,612	725,323	
1981	236,728 <sup>ø</sup>	57,099	39,923	97,022	7,881	204,653 <sup>ø</sup>	88,986 <sup>ø</sup>	74,605 <sup>ø</sup>	709,875 <sup>ø</sup>	
1982	232,217 <sup>ø</sup>	57,290	41,453	98,743	7,919	204,032 <sup>ø</sup>	88,737 <sup>ø</sup>	73,990 <sup>ø</sup>	705,638 <sup>ø</sup>	
1983	228,318	56,874	41,009	97,883	7,789	202,781	86,830	75,677	699,278	

**REGULAR WORKERS**  
On Agricultural Holdings  
**UNITED KINGDOM AND COUNTRIES**  
1979 to 1983 (at the June census)

Table 4.2

	Regular family workers				Regular hired workers				Regular family & hired workers	
	Whole-time		Part-time		Whole-time		Part-time		Whole-time	Part-time
	Male	Female	Male	Female	Male	Female	Male	Female	Total	Total
	United Kingdom									
1979	29,684	5,811	13,042	7,490	139,052	12,469	20,123	25,015	187,016	65,670
1980	30,039	5,489	12,873	7,230	132,513	11,843	19,421	24,659	179,884	64,183
1981	29,756	5,253 <sup>ø</sup>	12,522	6,995	127,989	11,479 <sup>ø</sup>	19,025	23,709	174,477 <sup>ø</sup>	62,251 <sup>ø</sup>
1982	30,105	5,194 <sup>ø</sup>	12,631	7,089	124,448	10,818 <sup>ø</sup>	19,285	22,647	170,365 <sup>ø</sup>	61,652 <sup>ø</sup>
1983	30,004	4,995	12,472	6,837	122,151	10,524	18,786	22,549	167,674	60,644

Out of a population of approximately 56 million, this represents only 1.7% of the pre-war population. The question of the future and training of survivors without agricultural skills naturally arises. The only possible solution to support a population of between 4 and 10 million individuals in such a largely non-agricultural country—in terms of the agricultural population—is clearly the implementation of a collective effort of training, guidance, and mutual aid. A governance structure—even a local and decentralized one, as discussed later—is therefore necessary to redirect efforts and skills toward agriculture, coordinate and teach millions of people a new way of life, and, above all, guarantee successful harvests, seed storage, planning, and processing. This effort necessarily began under the auspices of the authorities with the September-December 1984 harvest in many key agricultural regions and continued both out of obvious necessity for survival and logically on other scales thereafter.

Another issue concerning the need for broader coordination/exchange is that of agricultural density. For comparison, here is the area of two agricultural regions in the East of England (Lincolnshire and Norfolk) in 1983:

- Lincolnshire: 3,800 square kilometers of agricultural land (crops excluding pasture) out of a total area of 6,977 square kilometers; that is, 55% of the territory is under cultivation
- Norfolk: 3,120 square kilometers of agricultural land (crops excluding pasture) out of a total area of 5,384 square kilometers; that is, 57% of the territory is under cultivation

We can take as a point of comparison three very agricultural counties in the West (Oxfordshire, Hereford and Worcester and Shropshire):

- Oxfordshire: 1,140 square kilometers of agricultural land (crops excluding pasture) out of a total area of 2,605 square kilometers; representing 43% of the territory under cultivation
- Hereford and Worcester: 1,130 square kilometers of agricultural land (crops excluding pasture) out of a total area of 3,912 square kilometers; representing 25% of the territory under cultivation
- Shropshire: 1,000 square kilometers of agricultural land (crops excluding pasture) out of a total area of 3,488 square kilometers; that is, 30% of the territory is under cultivation

We could also consider a region in the South West of Britain, such as Devon:

- Devon: 730 square kilometers of agricultural land (crops excluding pasture) out of a total area of 6,707 square kilometers; representing 11% of the territory under cultivation

These low percentages in the West of England point to a highly fragmented and sparsely populated agricultural landscape, likely resulting in large distances between fields used for various crops (cereals, roots, tubers, fruits, etc.). However, the number of survivors a decade later—estimated by the film itself to be between 4 and 10 million—necessitates communication networks and coordination extending beyond the village level. Survivors, particularly in the West, cannot be entirely independent or isolated from the world due to food, agricultural, and social constraints. This requires at least the ability to move physically, communicate regularly, and exchange information with neighbors across a county, or at least across several villages or even small towns.

## The hoe

The most obvious tool in the film has numerous uses in agriculture. It can, of course, be used for digging furrows and planting, but also for weeding. It's a tool associated with subsistence farming as well as the cultivation of roots and tubers. It comes in various forms, sometimes resembling a fork.



## Plough or ard

Never shown in the film, the ard and the plow are essential for any agricultural system that aims to move beyond mere subsistence farming. Both tools perform the same task, the ard being simply the ancestor of the plow. The latter is more efficient than the ard because it digs deeper into the soil to create furrows. It is indispensable for crops such as wheat or barley, for example. It can normally be pulled

by horses, but also by oxen, or, more exceptionally, by human power.

If we focus on England only (and not the whole of the United Kingdom), there was a fairly large cattle population, as evidenced by these agricultural statistics from 1983 (UK Government Statistics in 1983 on cattle in England; Source: Agricultural Statistics United Kingdom 1983, MINISTRY OF AGRICULTURE, FISHERIES AND FOOD DEPARTMENT OF AGRICULTURE AND FISHERIES FOR SCOTLAND DEPARTMENT OF AGRICULTURE FOR NORTHERN IRELAND WELSH OFFICE)

	1979	1980	1981	1982	1983
<b>Cattle and Calves: Total</b>	8,230,047	8,126,659	7,996,913 <sup>a</sup>	8,050,368 <sup>b</sup>	8,058,710
<b>Cows and heifers in milk:</b>					
Dairy herd	2,150,703	2,116,273	2,083,140	2,132,320	2,176,756
Beef herd	502,802	475,303	460,338 <sup>b</sup>	451,528 <sup>b</sup>	435,461
<b>Cows in calf not in milk:</b>					
Dairy herd	228,528	207,952	203,246	190,854	195,936
Beef herd	113,749	111,356	108,777 <sup>b</sup>	105,146 <sup>b</sup>	103,420
<b>Heifers in calf (1st calf):</b>					
Dairy herd	489,037	488,227	506,766	492,102	491,521
Beef herd	77,565	72,904	72,778	72,136	66,620
<b>Bulls for service:</b>					
2 years old and over	34,655	32,823	32,204	31,879	31,657
1 year old and under 2	12,026	11,943	11,995	12,302	11,958
<b>Other cattle and calves:</b>					
2 years old and over					
Male (a)	297,825	290,746	272,355	272,323	258,450
Female – For slaughter	179,009	180,824	167,308	160,475	156,323
For dairy herd	135,265	127,185	132,959	122,731	115,867
1 year old and under 2					
Male (a)	687,301	691,134	668,687	689,198	675,767
Female – For slaughter	522,134	527,542	516,833	530,942	546,714
For dairy herd	830,212	824,803	806,235	822,372	800,312
For beef herd	128,881	125,956	124,942	126,581	121,822
6 months old & under 12					
Male (b)	520,476	532,026	557,770	565,935	577,871
Female	637,872	644,855	627,799	649,275	651,986
<b>Under six months old:</b>					
For slaughter as calves	29,098	34,853	24,321	29,772	34,932
Others – Male (b)	449,903	442,592	450,338	463,328	462,365
Female	503,006	487,362	468,127	469,169	472,972



The statistic mentions a total of nearly 8 million animals (oxen). Whether this was true, what proportion of these animals could have been used for

plowing remains unknown, as does their exact geographical distribution. Nevertheless, the population of these animals was relatively large. The possibility therefore remains open, and this is essential for the final scenes to be realistic. This implies that efforts were made to preserve livestock in many regions of the United Kingdom during the year following the attack on the country. A kind of return to traditional practices in a country that had extensively relied on animal traction, as evidenced by these postcards from the 1920s and 1930s in Sussex by photographer Arthur Cecil Fricker.

But despite this technical constraint (namely, animal traction), the following photograph taken during the First World War in France also reminds us that sometimes, people (here, women) are capable of difficult and collective efforts to achieve their goals (these three women are pulling a plow to till a field). And the almost witty commentary from the time on this photograph:



*...Heroic women of France. Harnessed to the plow, they cultivate the land. All of agriculture rests on their shoulders. Without complaint, with an attitude bordering on religious exultation, the women of France bear the burden...*



A solution far from permanent, but probably necessary in certain regions. To conclude on the need for efficient plowing, simple tools (which could have been made with few materials) like those in this photo could have assisted our survivors in their daily agricultural tasks (at least initially, while more efficient methods were being implemented)..

### *Faux*

Largely replaced today by combine harvesters, the scythe was the traditional tool for harvesting wheat in the fields at harvest time. Using a scythe requires a certain dexterity and precise movements. Its operation necessitates the coordination of several farm workers, most often working in a line.

### *Cattle*

We discussed cattle earlier, but it would be interesting to talk about the survival of other animals, particularly poultry. England had almost 90 million hens, ducks, chickens...



<b>Fowls: Total</b>	96,223,679	95,276,829	92,346,951	95,150,395	90,313,121
Producing eggs for eating:					
Pullets not in lay	11,788,270	11,241,460	10,868,726	11,565,834	9,615,531
Birds in laying flock					
less than 12 months	26,130,344	25,898,256	23,717,806	24,601,377	23,238,312
12 but under 18 months	8,536,944	7,743,266	8,871,807	8,381,457	8,152,250
18 months or more	1,848,730	1,960,956	2,034,214	1,916,725	1,604,339
For breeding:					
Hens and pullets	4,111,922	4,244,320	3,685,417	3,907,400	3,608,159
Cocks and cockerels	456,269	449,044	412,786	437,946	425,190
For table:					
Broilers	43,061,601	43,215,826	42,306,096	43,998,629	43,143,898
Poussins & other table fowl (c)	289,599	523,701	450,099	341,027	325,442
<b>Other poultry: Total</b>	7,332,312	7,463,954	9,322,023	8,322,023	9,222,287
Ducks	1,360,909	1,333,625	1,298,600	1,408,751	1,376,694
Geese	111,922	110,884	127,097	129,546	117,285
Turkey hens for breeding	498,028	499,998	449,786	423,928	570,671
Other turkeys (incl. stags)	5,361,453	5,499,447	7,446,540	7,001,637	7,157,637

British government statistics from 1983 on poultry in England (Source: Agricultural Statistics United Kingdom 1983, Ministry of Agriculture, Fisheries and Food, Department of Agriculture and Fisheries for Scotland, Department of Agriculture

for Northern Ireland, Welsh Office). Although "monogastric" (primarily grain-eating), it might have been logical to preserve them, particularly for their eggs and possibly their meat.

### ***Machines***

The possibility of restarting oil extraction/processing towards the end of the first year must also remain on the table: either with Wytch Farm and/or oil platforms in the North Sea. The figure of 11 million survivors ten years later points to a relatively robust and resilient agricultural system as early as the summer of 1985, which would justify maintaining/redeveloping mechanization at an early stage. This logic is also consistent with the maintenance and redevelopment of arable land in the East of the United Kingdom, further enhanced by the presence of oil/gas terminals connected via pipelines in these key agricultural regions (East of England and the Edinburgh area).



It therefore seems essential to us that at least one iconic piece of agricultural machinery be available to the survivors of the film (alongside the return to manual labor and animal traction): the combine harvester. Even in very small numbers, these machines are critical for grain harvests. The combine harvester is critical because it not only allows harvesting over large areas, but above all, it automates what is called threshing:

separating the grains. This is a tedious operation in a purely manual context. Another essential vehicle in the short term is the tractor for plowing and soil preparation. This work can be gradually compensated for by the redevelopment of animal traction for large-scale farming. Other equipment associated with mechanized agriculture seems less essential, particularly vehicles for spreading chemicals or sowing seeds.

### ***Agricultural yields needed***

To determine what would be needed to support the population at the end of the film, estimated at between 4 and 10 million inhabitants, we calculated the average of these two figures, which was 7 million people. We used yields of wheat, barley, potatoes, sugar beets, and mangolds. In 1983, yields per hectare across the United Kingdom were:

- Wheat: 6 tonnes per hectare
- Barley: 5 tonnes per hectare
- Potatoes: 30 tonnes per hectare
- Sugar beet: 38 tonnes per hectare
- mangolds: 56 tonnes per hectare

The configuration of the agricultural land area in 1983 was as follows:

- 1.6 million hectares for wheat
- 2.1 million hectares for barley
- 0.2 million hectares for potatoes
- 0.2 million for sugar beets
- 5,000 hectares for mangolds

Harvest Year	Wheat			Barley		
	Production area	Yield per hectare	Production	Production area	Yield per hectare	Production
	'000 ha	Tonnes	'000 tonnes	'000 ha	Tonnes	'000 tonnes
United Kingdom						
1979	1,372.1	5.22	7,168.5	2,347.5	4.10	9,623.3
1980	1,440.9	5.88	8,465.7	2,329.9	4.43	10,322.5
1981	1,491.1	5.84	8,707.1	2,328.6	4.39	10,226.8
1982	1,662.8	6.20	10,316.5	2,222.5	4.93	10,956.0
1983 (a)	1,695.1	6.37	10,800.6	2,144.0	4.66	9,984.8

Harvest Year	Potatoes: First earlies			Potatoes: Maincrop and Second earlies			Fodder beet and Mangolds		
	Production area	Yield per hectare	Production	Production area	Yield per hectare	Production	Production area	Yield per hectare	Production
	'000 ha	Tonnes	'000 tonnes	'000 ha	Tonnes	'000 tonnes	'000 ha	Tonnes	'000 tonnes
United Kingdom									
1979	19.4	18.22	352.6	184.2	33.22	6,118.6	6.1	65.13	383.2
1980	20.0	22.64	452.7	186.0	35.76	6,651.4	6.1	61.03	372.3
1981	20.0	18.67	373.4	171.6	34.03	5,839.5	5.3	60.30	319.6
1982	19.9	21.77	432.2	173.0	37.26	6,444.4	5.4	69.21	370.5
1983	15.7	20.50	321.3	178.6	30.75	5,493.1	6.3	56.30	295.8

Harvest Year	Sugar Beet (a)			Hops (b)		
	Production area	Yield per hectare	Production	Production area	Yield per hectare	Production
	'000 ha	Tonnes	'000 tonnes	'000 ha	Tonnes	'000 tonnes
England (c)						
1979	214.2	35.76	7,658.8	5.7	1.81	10.3
1980	212.3	34.73	7,379.6	5.7	1.70	9.7
1981	209.7	35.26	7,394.4	5.8	1.60	9.3
1982	203.0	49.29	10,097.4	5.9	1.75	10.3
1983	198.8	37.70	7,494.0	5.6	1.21	8.2

We started from the premise that the first year:

- Yields were expected to fall by 80% for wheat and barley.
- Yields were expected to fall by 70% for potatoes, sugar beets, and mangolds.
- 50% loss for each of the products
- That barley will be brought back into fashion in the form of barley bread (a topic discussed in detail later in the article)
- From the consumption of agricultural products normally reserved for animals but perfectly edible (sugar beets and mangolds)
- Maintaining current acreage is advisable, although the most logical approach might be to expand root/tuber cultivation in many regions alongside the redevelopment of cereal yields, as mentioned above.
- We did not take into account the problems of fragmentation of the national territory, nor the issue of potentially contaminated land, nor the precise need for labor to cultivate it, the idea being to evaluate a global model by simply projecting the demographic figures from the film onto the British agricultural system in 1983; all these factors could contribute to a need for better yields.

The expected yields in 1985 are therefore:

- 1.2 tonnes per hectare for wheat (1 million hectares)
- 1 tonne per hectare for barley (1 million hectares)
- 10 tonnes per hectare for potatoes
- 11 tonnes per hectare for sugar beets
- 17 tonnes per hectare for mangolds

The estimated yields for wheat and barley historically correspond to the rates for England alone between 1700 and 1800, when the population was between 5 and 10 million. Below this (0.4 to 0.7 tonnes per hectare), the corresponding population would be between 2 and 4 million. We could therefore expect the following harvest in 1985 (after deducting 45% to account for seeds, various losses, and livestock):

- 687,500 tonnes of wheat
- 550,000 tonnes of barley
- 1,100,000 tonnes of potatoes

- 1,210,000 tonnes of sugar beet
- 41,250 tonnes for mangolds

This would give the following daily quantities per person in calories:

- 909 calories with wheat (269 grams of wheat per day and 338 calories/100 grams)
- 743 calories with barley (215 grams of barley per day and 345 calories/100 grams)
- 319 calories with potatoes (431 grams of potatoes and 74 calories/100 grams)
- 200 calories with sugar beets and mangolds (500 grams total and 40 calories/100 grams)
- Approximately 2200 calories/day/person from crops alone

A base of at least 2200-2500 calories from crops alone seems necessary after the severe crisis of March-May 1985, due to the exhaustion of the survivors, but also to legitimize the authorities, whether local or regional, and to establish a biological, even almost civilizational, foundation upon which to rebuild. By the end of 1997, the logical approach to achieving agricultural surpluses would be to obtain the following yields after a rebound of 25% for cereals and 35% for other crops:

- 1.5 tonnes per hectare for wheat (1 million hectares)
- 1.25 tonnes per hectare for barley (1 million hectares)
- 13 tonnes per hectare for potatoes
- 15 per hectare for sugar beets
- 24 tonnes per hectare for mangolds

We could expect the next harvest in 1997 (after deducting 45% to account for seeds, various losses and animals):

- 825,000 tonnes of wheat
- 687,500 tonnes of barley
- 1,430,000 tonnes of potatoes
- 1,650,000 tonnes of sugar beets
- 66,000 tonnes of mangolds

This would give the following daily quantities per person in calories:

- 1091 calories with wheat (323 grams of wheat per day and 338 calories/100 grams)
- 928 calories with barley (269 grams of barley per day and 345 calories/100 grams)
- 414 calories with potatoes (560 grams of potatoes and 74 calories/100 grams)
- 300 calories with sugar beets and mangolds (700 grams total and 40 calories/100 grams)
- Approximately 2700 calories/day/person

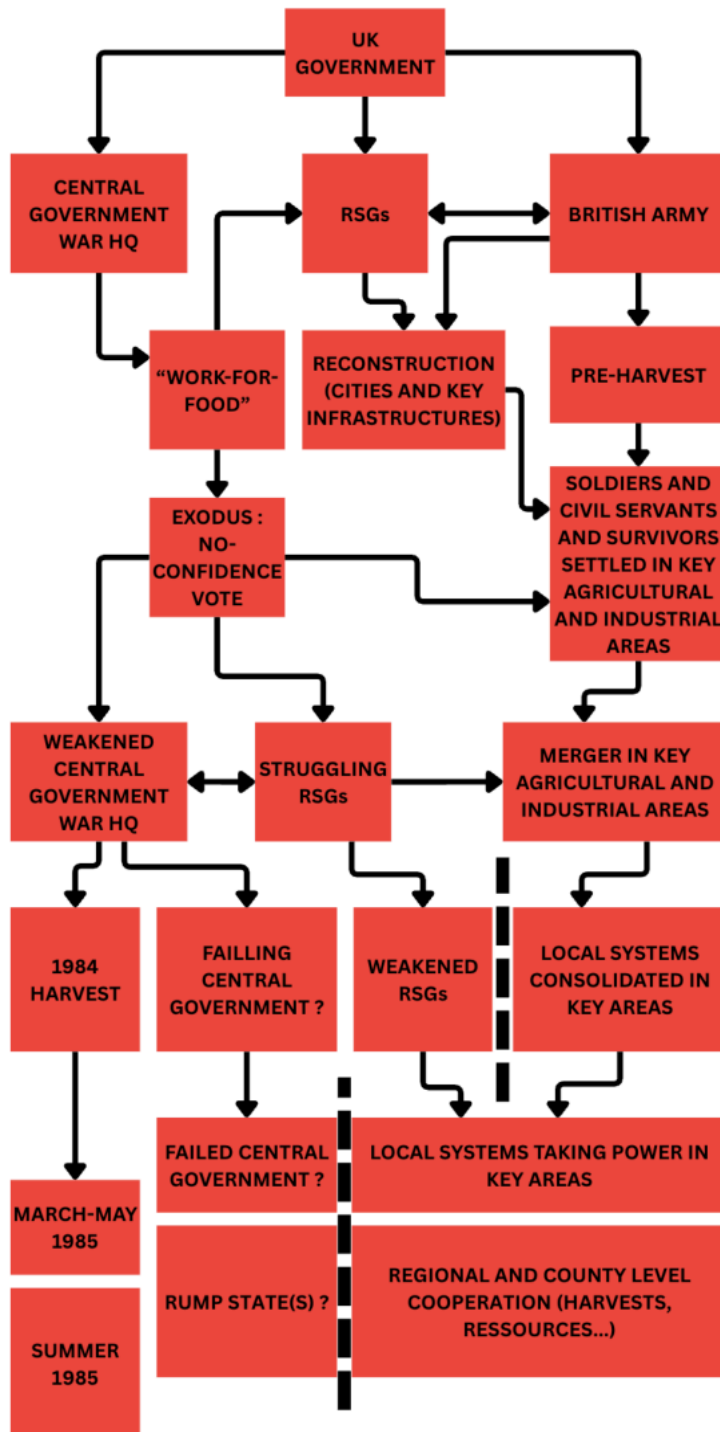
Although these figures are calculated on a national scale, this remains a logical prerequisite for the final scenes of the film.

### ***The continuity of order***

Whatever the political structure that emerged before, during, or after the March-May 1985 crisis, it seems a logical prerequisite that a large proportion of these military personnel/civil servants would have quickly integrated with the local population to organize localized but coordinated, and above all vital, efforts within the context of the severe agricultural and food crisis depicted on screen. This is a highly probable and logical prerequisite for having 4 to 10 million survivors ten years later, according to the film's figures, due to the need for

coordination beyond the village level and for agriculture that is not of the primitive subsistence type. Such a population requires coordination from March-May 1985 onward across large geographical areas, preservation of seeds and livestock, and transmission of knowledge—a monumental collective effort given the context portrayed on screen. Without coordinated efforts by competent actors at the worst possible time, across large geographical areas, there would be little chance of survival; not to mention the need for technical infrastructure or coal extraction.

The concept of the "fragmentary state," in my view, best aligns with the imagery of the final scenes (a relatively fragmented world), with the logical consequence (at least in the short



term) of an antagonistic political approach that has grasped the national reconstruction effort. It also constitutes the logical prerequisite for the existence of these scenes and serves as justification for the film's demographics. It is the minimal foundation enabling counties/regions to develop governance, a society, coordinated agriculture, and an organization that allows them to move beyond the stage of rudimentary survival. This model also corresponds to past historical situations where unconventional forms of governance emerged during major crises (Soviet Union, Yugoslavia, Roman Empire, Ethiopia, Sudan, etc.). Logically, these new forms of governance (to correspond to the film's scenes and to a geographical/agricultural/mining reality) would emerge in the agricultural and coal-mining regions of the United Kingdom. Logically, then, all the regions where significant efforts had to be concentrated to save the 1984 harvest—namely, the East of England, the Southeast, the West in the Shropshire and Hereford and Worcester regions, and possibly even Scotland (the Edinburgh region)—were affected. We also need to consider how governance

emerged between the gradual collapse of the centralized state and the rise of new structures. Here is a diagram as well.

Even though the Southern Hemisphere wasn't physically destroyed, contact and assistance (for a very short period) were likely concentrated on the United States and the Soviet Union, given their weight and importance in the pre-war world. And due to the effects of nuclear winter, many countries probably focused for a time more on agriculture than on aiding completely devastated nations. Also, given that the United Kingdom is an island, its isolation was far greater than that of continental countries like the United States and the Soviet Union. All of this was rebuilt without outside help, according to the film alone.

### *Institutional resilience*

The best and only advantage of these “fragmentary states” was that they were formed by highly organized and knowledgeable individuals drawn from the former state institutions. Unlike some communities led by former military personnel or civil servants, their collective knowledge was extensive enough to cover many essential topics—something impossible for a single local leader. Another advantage was that these people likely shared a common vision. The massive presence of soldiers and former civil servants would have created a core of order and cohesion for the critical period between March and May 1985. It is also worth noting that at a certain point (lacking weapons, vehicles, and ammunition, and without a solution for replenishing stocks), the actions of the defunct military units were extremely limited and quickly ceased in the months following May 1985.

What likely happened, in fact, is that the founders of the "fragmentary state" unintentionally reintroduced some of the pre-war systems because they had been trained to do so. Initially, this was probably very basic: thinking more carefully about the types of crops we can grow, providing rudimentary education for children, and better planning the production of simple things like bread. This pattern was logically replicated in the vast majority of agricultural communities, with the possible exception of those that were already largely agricultural before the war—a necessity, in fact, to guarantee the food and agricultural survival of the population and those regions—but not with the same intensity as in the "fragmentary state." This institutional commonality among these actors, even geographically separated, seems a logical explanation for the reconstitution of a semblance of institutional order over larger areas. A prerequisite both in the short term (from the critical period of March-May 1985, then the very first months and years following) in the agricultural sector – with the vital need for exchange and coordination among communities – and in the long term for the restart of industrial infrastructure (a decade later). A situation that generated ambiguous relationships between the survivors and those perceived as symbols of the old order responsible for the destruction and collapse during the year following the nuclear attack.

To use an image: when you are able to produce more bread than others, for example (even if it is still a small amount), when your fields are better planted than others (even if we are talking about a few hectares), when your population seems healthier than others (even if it is relative) and when you are gradually able to introduce important things like a kind of industry, even "low level", to exchange basic things like textiles and even clothes when others cannot; naturally, it attracts people.

Given these factors, modest but steady growth likely occurred over a decade, with a gradual expansion of their direct influence over surrounding communities, rather than a classic territorial expansion. The latter was impossible due to a lack of vehicles, even weapons, and

the long-standing "attraction-repulsion" felt by many survivors (who probably traded with this "fragmentary state" out of necessity rather than humanitarian motives). What might these men (and perhaps women) of the "fragmentary state," also working in the fields like everyone else, have looked like? Perhaps like the British soldiers sent to the fields in 1945 to assist farmers with the harvest.

Given that the founders were survivors of the nuclear attack and the collapse of the United Kingdom, the rules were likely strict. Having witnessed the complete breakdown of the previous institutions to which they had dedicated their lives, and perhaps also traumatized by what they saw during the collapse of the UK, they would have wanted to maintain order at all costs. However, the film seems to present a rather simplistic and unengaging portrayal that doesn't quite align with what would have been needed for the film's final scenes.



The presence of a school and a hospital points to a much more nuanced profile, to people concerned with the collective well-being in some way; even if the film seems to completely



downplay this role, rendering them anonymous figures. The truth is that the film seems to overlook a fundamental point: elements like the school, the hospital, and coal mining point to stable governance (in addition to the existence of a functional agricultural system). These soldiers and this infrastructure cannot logically exist in an organizational and societal vacuum. Although the film merely presents these soldiers as anonymous figures solely using their weapons (like the scene where Jane

walks under a lamppost to get to the hospital, and where an off-screen soldier shouts "Halt!" to a fleeing man who opens fire), and because they are the only elements of order we see on screen, we must infer that they are the ones most logically behind this infrastructure. At the very least, they were able to provide the organizational and security foundation to achieve this.

They probably didn't live like kings, like the soldiers we see at the end of the film entering what is likely a makeshift building protected by tent materials as a resting place. Perhaps the source of their legitimacy was living like everyone else. The idea of engaging in politics would have been meaningless given their precarious situation: whoever the founders of the "fragmentary state" were, they were also survivors.

The scene where the soldiers enter a makeshift building at the end of the film. A scene that wouldn't make sense without the context mentioned above. What are they doing here? Why is there a light in their shelter? Why can we hear the radio? All this amidst undeniable signs of a functioning society (school, hospital, coal mining, streetlights...).

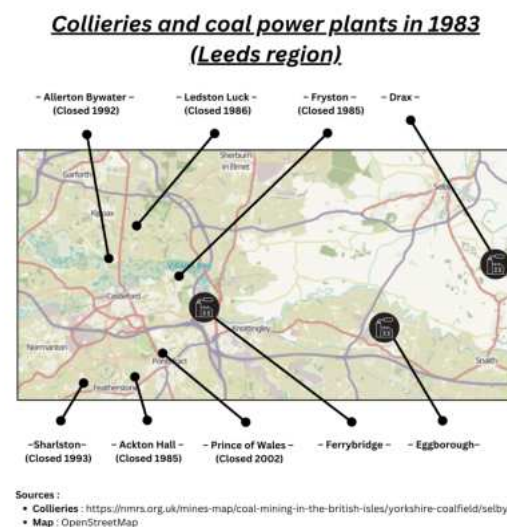
What might their motivations have been? England has only experienced a “military adventure” once, in the person of Oliver Cromwell, a military man who became Lord Protector from 1653 to 1658. This is the only experience in the United Kingdom that could be described as republican—in theory, as Cromwell’s regime was particularly authoritarian—in the sense that the royal family no longer had any power or influence. But not all military figures are authoritarian. In this regard, a case closer to our time, and one that could provide an interesting parallel, is the Carnation Revolution in Portugal in 1974. This coup d’état, carried out by the military to pave the way for democracy, stemmed from the growing discord between the military and the remnants of the Salazarist dictatorship in Portugal. In our context, this may be what happened: the rise of disagreements throughout 1984-1985 regarding the choice of governance, the implementation of which logically had to fall mainly to the military and other government personnel in the field in contact with civilians, followed by the institutional impasse between March-May 1985 forcing these same people to implement solutions that were initially very local and then probably regional, both for themselves (they were also impacted by the serious crisis in the food distribution system) and for others; a necessary paradigm shift (adapting to local constraints, particularly agricultural, logistical and human) and a logical explanation for how new local organizations emerged – an institutional prerequisite to allow at least the survival of many communities and regions across the country.

### ***Gradual and regular growth***

With a degree of stabilization, it became possible to go beyond what had been done initially. Some infrastructure was likely repaired gradually over time, leading to the restoration of a local power grid. Unlike fuel, you can't easily use generators with coal. Two solutions can explain what was done: salvaging old steam engines or restarting a partially destroyed coal-fired power station.

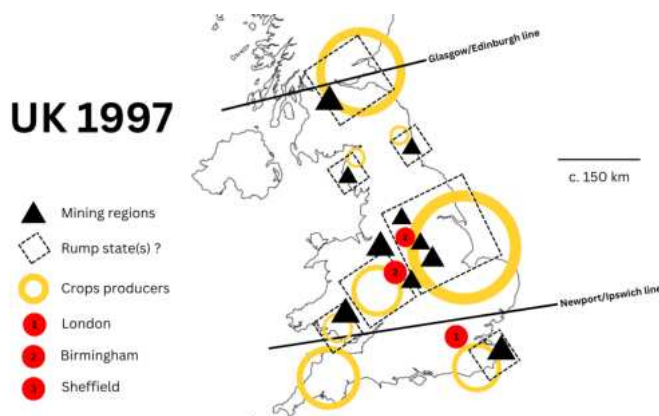
Reclaiming an old steam engine is entirely plausible, but it requires a great deal of work to convert it into an electrical grid. A way must be found to connect the engine to electrical cables to distribute power to multiple buildings. This means the entire electrical network needs to be rebuilt. This is challenging, but not impossible, given that it appears to be a hyperlocal electrical grid, based on what we see on screen.

Another possibility is that an old coal-fired power station was brought back online. Around Buxton (to match the film's setting), there were three coal-fired power stations in the vicinity in the 1980s: Fiddlers Ferry (near Liverpool), Ferrybridge C (near Sheffield), and Rugeley B (near Birmingham). From a purely logistical point of view, the Leeds area might be much more suitable: there were three operating coal-fired power stations there at the time, and numerous active coal mines. Whether this is entirely plausible from a purely logistical perspective doesn't change the fact that the film itself demonstrates the presence of a functioning electrical network: television for



the classroom, hospital, streetlamp, and even light and radio in a house occupied by soldiers at the end of the film.

Several locations across the UK could have been used for the emergence of a "fragmentary state" leading to the reintroduction of coal; all within a small area between a line formed by Glasgow/Edinburgh in the north and a line between Gloucester/Boston in the south. Essentially, what's needed is a coal-rich region and a recommissioned pre-war coal-fired power station; or at least access to steam engines that could be converted. In the 1980s, mines were concentrated around Swansea and Cardiff in Wales, around Glasgow and Edinburgh in Scotland, and in an area formed by Leicester, Birmingham, Liverpool, and Leeds in England. Regarding what I was saying about the geographical area required for the film's final scenes ("a line formed by Glasgow and Edinburgh in the north, and a line between Gloucester and Boston in the south"), what we need is coal and food. Possible areas for the final scenes of



the film. Triangles represent mining areas. Yellow circles represent agricultural areas. The dotted line in the center shows the possible "fragmentary state" needed to coordinate the activities seen at the end of the film.

Although the map speaks for itself, some explanations are necessary, from North to South.

The "Crop Producers" region (a New English term for farmers) around Edinburgh focuses on two main products: root crops (especially potatoes) and grains (primarily barley for Scotland), close to the historic mining region between Glasgow and Edinburgh. It's not my personal favorite for the film's final scenes, mainly due to the climate (and the inevitable question of food diversity) and the region's relative isolation; but it's a good possibility.

The vast central territory of the United Kingdom, with few identified concentrations of critical resources (apart from the mining area around Newcastle), appears relatively isolated from the rest of the country and of little relevance.

The central and most important region: the one where the "fragmentary state" could be located. It's the best place for several reasons. First, the two main regions identified for agricultural recovery (East of England and North of Newport) are known for a wide range of critical agricultural products: potatoes, cabbage, carrots, turnips, wheat, barley... The potential is there even after significant disruption. Locating the "fragmentary state" here makes sense because we are at the obvious intersection of food and coal.

The idea of reactivating infrastructure in destroyed cities might seem counterintuitive, but given the transportation problems, it makes far more sense to concentrate all efforts where coal is available and where food can be grown relatively close to that infrastructure. This may also explain the relatively limited signs of recovery on screen. Without the ability to perfectly match food production with coal production, efforts can only be minimal.

Wales is also known for its coal, but agricultural opportunities appear more limited in our context due to the very small number of cultivation possibilities.

To the south, we have the traditionally market-garden area between Cornwall, Devon, and Somerset. But even with considerable agricultural expertise, the fact remains that the region is extremely isolated from the coal mining areas. It makes more sense to consider it as a potentially relatively prosperous agricultural area within the context of the film, but one that is isolated.

And finally, the area near Kent/East Sussex. The region is also known for agriculture. This could also be an interesting area for reconstruction efforts, but its proximity to the London urban area and its significant isolation from the rest of the country make it a less plausible choice, in my view, for the "concentrated" efforts required: food, coal, expertise, infrastructure, and population.

The three regions around Edinburgh, in the East of England, and north of Newport are the most suitable. This is where the United Kingdom has always produced cereals, and especially roots and tubers. All these regions are close to coal mines.

To summarize:

The agricultural recovery likely occurred most strongly in root/tuber/legume/pulse production areas: these are relatively easy to grow, produce, and store, are high in calories and nutritionally sound, and represent the best choice for rapid food production (even with minimal effort, comfortable yields can be expected). The rebound in cereal production necessarily took time due to numerous challenges (reinstating animal traction, lack of vehicles, etc.). Cereals are certainly important, but producing high yields in a fragmented agricultural landscape with less mechanized farming is unlikely in the short term. Cereals require significant knowledge, coordination, labor, and processing, which are not guaranteed in our context. A more logical approach is to prioritize "profitable" crops (high yields with fewer tools) from the outset and gradually rebuild cereal yields.

### ***The unknown factor: soil contamination***

Regarding soil contamination, the fact is that we don't really know where the bombs fell in the film (apart from major cities and some NATO air bases). In my previous article, "*United Kingdom 1984-1985: Fuel crisis and societal collapse*" I had broached the subject between the attempt at reconstruction and the harvest: *Although not depicted in the film, it was mandatory that a pre-harvest operation be organized by the authorities during this period, prior to the harvest, to prepare the fields. This involved guidelines including: the removal of fallout dust (sometimes estimated to require removing up to 10 cm of soil in such cases – although this measure would likely have been very exceptional, even anecdotal, given its logistical and agricultural costs), the removal of livestock carcasses to prevent further contamination, the creation – however difficult – of soil contamination maps, and the preparation of machinery needed for processing the harvest. This organized effort likely began as soon as the curfew was lifted, in the following weeks. This mandatory pre-harvest operation logically implies that personnel (military personnel, agricultural experts, civil servants, etc.) and equipment (fuel, radiation assessment equipment, etc.) were deployed to agricultural areas of the United Kingdom very early and in large numbers.* Even if minimal, had it occurred, I believe significant efforts would have been made in major agricultural regions, particularly those potentially identified as "crop producers" (cereal, root, tuber, vegetable, and other crops). The fact is also that fallout patterns are not as precise to determine (this requires work that clearly exceeds the scope of this article, and the fallout patterns from the Chernobyl nuclear power plant speak volumes about the complexity of

modeling the subject; it should also be noted that this involved a continuous release of radioactive material). For nuclear weapons: major fallout generally occurs through "ground bursts" (explosions close to the ground to destroy silos, air bases, key infrastructure, etc.).

The targets were spread across the UK (above London, some in East Anglia, many in southern England, Scotland, and Wales). The fact is, destroying them all (without considering key infrastructure, multiple strikes on large urban areas, etc.) would not have been realistic. From my perspective, and based on what we know about Chernobyl, almost any product can be affected if it comes from severely contaminated areas (whether it's wheat, potatoes, wild food, animal feed, etc.). I personally would have had some doubts about eating wheat/barley harvested after the nuclear attack, for example, as it could have been contaminated by immediate fallout.

The fact that I explained in my previous articles that the military/civil servants logically blended with the population during the March-May 1985 crisis could have led to continued efforts to assess and improve soil quality. The levels and duration of radiation are also determined by the amount of radioactive material falling on the ground. This is perhaps the main limitation of my work, and it is not its objective: to understand the agricultural model necessary for recovery without being able to assess all the challenges. The "why" of several locations is addressed: some of them could perfectly correspond to the final scenes of the film (Scotland, Central England, Kent, etc.) and others less so (Southwest England).

### *The Belarusian case*

Either we accept that things are complex and that the risk exists (and that we must live with it as was the case in Belarus, Ukraine, Russia and throughout Europe after Chernobyl), or we choose the pitfall of portraying any potentially impacted area as a wasteland, which is neither realistic nor serious.

To put it humorously: it's a bit like asking people not to have sex for 30 years when STIs/STDs were discovered. Something that, in my opinion, is far more worrying for most people than eating potentially contaminated products (either from fallout or from all sorts of modern chemicals). This is why we must always find a balance between risk, pragmatism, and continuity. Are some areas unusable? Of course. Is the whole country a desert and are we going to starve? No. Jokingly: when you know that Belarus is the eighth-largest potato producer in the world, you know the battle is far from over. Ukraine is third.

The Chernobyl disaster affected not only the area surrounding the nuclear power plant, but also all the surrounding farmland in Belarus, Ukraine, and Russia. Belarus is a particularly striking example, with nearly 23% of its territory contaminated. Many root, tuber, and vegetable products form the staple food in these countries. For instance, on several occasions, Belarus produced more potatoes than wheat. Between 1990 and 1992, Belarus produced a total of 10 million tons of roots, tubers, vegetables, and legumes, compared to 7 million tons of cereals. If the Soviet Union in Belarus, Ukraine, and Russia had decided to ban all food products in the contaminated areas (and not just in the most affected areas, since radiation spread almost everywhere to varying degrees in the Soviet Union and Europe), the resulting food crisis would have been far worse than the disaster itself, especially considering the state of the Soviet Union's food distribution system. As I said earlier, the only solution was to adapt to this new reality. For Belarus: a single ban on the most affected agricultural land (approximately 300,000 hectares out of 5 million hectares of arable land, with perhaps 2 million hectares affected initially), crop selection, and a single, massive rejection of the most

problematic products (including milk, meat, wild foods, mushrooms, etc.). Efforts were made to clean the soil surface. New habits were also introduced, such as thorough cleaning and peeling of food.

The fact is that even the "monuments" to the effects of nuclear war (Hiroshima and Nagasaki) were rebuilt because there was no other option. Even in the face of a catastrophe like Chernobyl, people had to fight (physically, like the liquidators) because there was no room for defeatism in the face of a deadly threat. The fact is that the history of the effects of nuclear disasters tells us the exact opposite of defeatism, because it is the complete opposite of what humans do. I would even go further: whatever the disaster—forest fire, landslide, flood, oil spill—we have never seen anyone do nothing.

### ***The imperative of arable land in the East***

Concentrated efforts for recovery (a necessity in the final scenes) could only have occurred with several closely linked factors: stable food production, available historical infrastructure, coal, and a large population density. Hence the reasoning that central England is the most logical location for a possible "fragmentary state." We should also note the very favorable climatic conditions in this region. But as I said earlier regarding potential soil contamination from bombing: these are primarily identified agricultural patterns. And also a matter of personal preference. Despite its obvious potential, eastern England was more threatened than other regions. The areas identified near Scotland or Kent/East Sussex could, of course, have been much better.

The potential location of this "fragmentary state" in the heart of England is perhaps the epitome of the constraints of a world in utter upheaval, yet in the process of rebuilding itself. Nothing is perfect in this region: destroyed cities, potential contamination of fields in the identified agricultural region to the east, no roads... But possibly the only ideal place where numerous small, accumulated advantages exist: a historical region known for its diversified food production, currently undergoing restructuring; critical and easily produced agricultural commodities; coal; legacy infrastructure; and a skilled workforce... The perfect "misalignment of the planets" leading to signs of recovery through the aggregation of small but critical factors. These factors exist in other regions, but what could have happened here is that they reached a "critical mass."

The critical value of these farmlands in the East of England (the "breadbasket" of the UK, practically "gold" for the central authorities and later the survivors) could have led, in the short term, to a large concentration of people, food, seeds, military personnel, and civil servants for the management of the centrally organized harvests in 1984. Efforts, regardless of the exact levels and patterns of contamination, to clean up and improve the land were not only a necessity but a matter of life or death, given the agricultural value of these lands. Even if minimal, considering the constraints (fuel rationing, urban exodus, etc.). For the British government and the RSGs, sacrificing the best land for their desperate harvests between September and December 1984 and for the likely planned agricultural projects would have been utter nonsense, despite the enormous challenges that could arise. Similar efforts were probably made in the identified agricultural region in Scotland. Perhaps also in the south of England, though to a lesser extent. Depending on the level of radiation, soil quality could have improved naturally over the decade. Furthermore, previous efforts under the direction of central authorities could have been continued, given the greater presence of survivors from past institutions (military personnel, civil servants, farmers, etc.) and individuals (either former residents or city dwellers): soil remediation, crop selection, improved food processing,

and so on. All of these things do not require central planning but rather institutional resilience.

Nevertheless, the agricultural region of the East remains irreplaceable given British geography. This region was naturally prioritized. It was in these regions that a large number of critical actors were able to concentrate: military personnel, civil servants, farmers, survivors, agricultural experts, and so on. The film depicts a collapse 10 to 12 months after the attack (famine, military violence, demechanization, etc.) but clear signs of reorganization a decade later with the mandatory combination of agriculture (a requirement for non-agricultural activities) and coal (a prerequisite for electricity). The pattern that emerges from these narrative, agricultural, logistical, societal, and organizational realities—never articulated (nor understood) in the film—is that:

1. A considerable human, agricultural and material effort was required in the East of England in the first year, particularly during the 1984 harvest.
2. An unparalleled advantage and density of human, organizational, and agricultural resources allowed them to weather the difficult period between March and May 1985 and move forward, even with the shift to more manual farming practices.
3. A decade-long reconstruction of a coherent and adapted agricultural system, subsequently enabling the reactivation of infrastructure and industrial-scale coal extraction, leading to the emergence of the infrastructure visible at the end of the film.

For the sake of transparency, here is a simplified diagram of the possible bombings across the UK in *Threads* on May 26 (with civilian, military, and agricultural targets potentially affected; something never discussed or shown in the film itself, yet crucial). The dotted squares denote major urban centers destroyed, the red dots military targets, and the two yellow circles major agricultural areas of the UK.

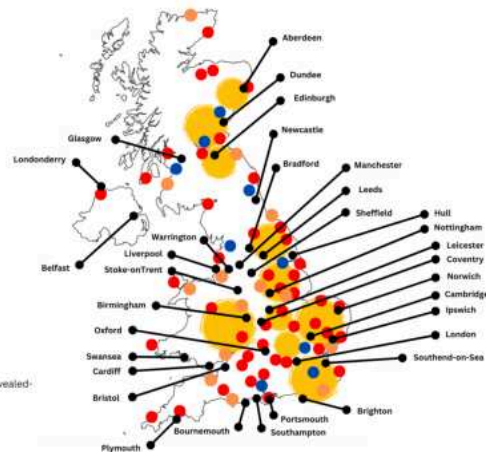
Although potentially severely affected, one simple fact remains regarding the East of England (and perhaps also the agricultural area of Scotland near Edinburgh), as illustrated by the map above: concerns about radiation would not outweigh the preservation of agricultural capacity in the East of England, as this is an absolute national security priority. And for several compelling reasons:

### UK MAY 26TH "STRIKES"

- Key urban areas destroyed (airburst)
- Key military targets areas (groundburst)
- Oil refineries areas
- Key power plants (nuclear or conventional)
- Key agricultural areas impacted

c. 150 km

Sources:  
 • Military bases: <https://www.robedwards.com/2014/06/revealed-the-106-cold-war-nuclear-targets-across-the-uk.html>  
 • Powerplants: Wikipedia, powerstations.uk  
 • Agriculture: Wikipedia, DEFRA, AHDB



- The agricultural region of East England represents an irreplaceable national food production capacity.
- The authorities would prioritize these areas precisely because of the risks of contamination, and not in spite of them.
- The case of Belarus demonstrates that a country affected by radiation cannot get rid of all its agricultural land (which could be worse than the radiation).

Even though I have no information on what the British authorities' exact objectives might have been regarding this region in a real-life scenario (and which products could or could not have been salvaged), I don't think they would have abandoned the East of England. Because:

- Famine has a 100% mortality risk
- Radiation poses a greater long-term health risk
- The UK's "granary" cannot be replaced or moved
- Technical methods of remediation exist
- For historical context: the subject is discussed in the film *The Day After* (1983), where towards the end of the film, government representatives are seen with farmers discussing crop selection and top soil removal if necessary – despite the obvious difficulties this may present, it remains a viable option.
- Food production is the foundation of any recovery effort

And finally, the film itself showed us that the fictional government was ready to push all its remaining forces into agriculture in the last broadcast heard in the film: *If we are to survive these first difficult months and establish a solid foundation for the redevelopment of our country, then we must focus all our energies on agricultural production. (Wartime Broadcasting Service broadcasts)* And in the context of the British Isles: this can only refer to the "breadbasket" of the United Kingdom or the East of England more broadly. The mere fact that the harvest scene in the film depicts a combined harvester and grain clearly indicates that the authorities are making significant efforts in these areas and specific regions (even if this isn't explicitly stated or understood by the film). Most importantly, their "work-for-food" program requires agricultural products. Therefore, the film's internal consistency dictates that massive agricultural and organizational efforts are being directed towards these regions.

The "why" of this area is clearly important for understanding what could realistically have happened in the film's later scenes: the redevelopment of a critical agricultural area over a decade. Because this is where food is grown in the UK and will continue to be grown in the future, even if challenges exist. If nothing had been done in the film's universe concerning the East of England, there wouldn't be the final scenes.

	NORTH		NORTH YORKSHIRE		NORTHAMPTONSHIRE		LINCOLNSHIRE		DERBYSHIRE		HUMBERSIDE		WEST		SOUTH		CAMBRIDGESHIRE		DEPTFORDSHIRE		SUFFOLK		SUSSEX		
	Area	Ha	Area	Ha	Area	Ha	Area	Ha	Area	Ha	Area	Ha	Area	Ha	Area	Ha	Area	Ha	Area	Ha	Area	Ha	Area	Ha	
Total agricultural Area	7,700	430,370	12,020	622,200	2,270	122,210	7,230	374,800	4,040	207,400	4,230	217,000	4,770	238,220	4,010	202,710	1,930	97,010	2,240	114,000	4,710	238,000	4,710	238,000	
1974	7,700	430,370	12,020	622,200	2,270	122,210	7,230	374,800	4,040	207,400	4,230	217,000	4,770	238,220	4,010	202,710	1,930	97,010	2,240	114,000	4,710	238,000	4,710	238,000	
1983	7,700	430,370	12,020	622,200	2,270	122,210	7,230	374,800	4,040	207,400	4,230	217,000	4,770	238,220	4,010	202,710	1,930	97,010	2,240	114,000	4,710	238,000	4,710	238,000	
Change	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1974	7,700	430,370	12,020	622,200	2,270	122,210	7,230	374,800	4,040	207,400	4,230	217,000	4,770	238,220	4,010	202,710	1,930	97,010	2,240	114,000	4,710	238,000	4,710	238,000	
1983	7,700	430,370	12,020	622,200	2,270	122,210	7,230	374,800	4,040	207,400	4,230	217,000	4,770	238,220	4,010	202,710	1,930	97,010	2,240	114,000	4,710	238,000	4,710	238,000	
Change	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

To that end, here is a summary of agricultural land in England in June 1983 with regard to major agricultural products (cereals, vegetables, potatoes, and sugar beets) for the eastern British counties. Cereals (3.3 million hectares in June 1983):

- North Yorkshire : 189716 hectares
- Humberside: 178257 hectares
- Lincolnshire : 291423 hectares
- Norfolk : 219837 hectares
- Suffolk : 183857 hectares
- Essex : 167774 hectares
- Kent : 93431 hectares

- Cambridgeshire : 179817 hectares
- Nottinghamshire : 80127 hectares
- Northamptonshire : 96674 hectares
- Hertfordshire : 62552 hectares
- Bedfordshire : 57995 hectares

Total: 1.8 million hectares (54% of England's surface area). Vegetables – excluding potatoes – (140,000 hectares in June 1983):

- North Yorkshire : 2557 hectares
- Humberside: 11783 hectares
- Lincolnshire : 34266 hectares
- Norfolk : 19206 hectares
- Suffolk: 9991 hectares
- Essex: 6427 hectares
- Kent: 7139 hectares
- Cambridgeshire : 11161 hectares
- Nottinghamshire : 2079 hectares
- Northamptonshire : 238 hectares
- Hertfordshire : 851 hectares
- Bedfordshire : 3908 hectares

Total: 103,000 hectares (73% of England's surface area). Potatoes (141,000 hectares in June 1983):

- North Yorkshire : 12273 hectares
- Humberside: 7884 hectares
- Lincolnshire : 20065 hectares
- Norfolk : 12406 hectares
- Suffolk: 4038 hectares
- Essex: 5578 hectares
- Kent: 5951 hectares
- Cambridgeshire : 12653 hectares
- Nottinghamshire : 4976 hectares
- Northamptonshire : 1295 hectares
- Hertfordshire : 702 hectares
- Bedfordshire : 1202 hectares

Total: 84,000 hectares (59% of England's area). Sugar beet (198,000 hectares in June 1983):

- North Yorkshire : 12880 hectares
- Humberside: 9655 hectares
- Lincolnshire : 33021 hectares
- Norfolk : 58670 hectares
- Suffolk: 24694 hectares
- Essex : 4685 hectares
- Kent : —
- Cambridgeshire : 23851 hectares
- Nottinghamshire : 8156 hectares
- Northamptonshire : 632 hectares
- Hertfordshire : 289 hectares

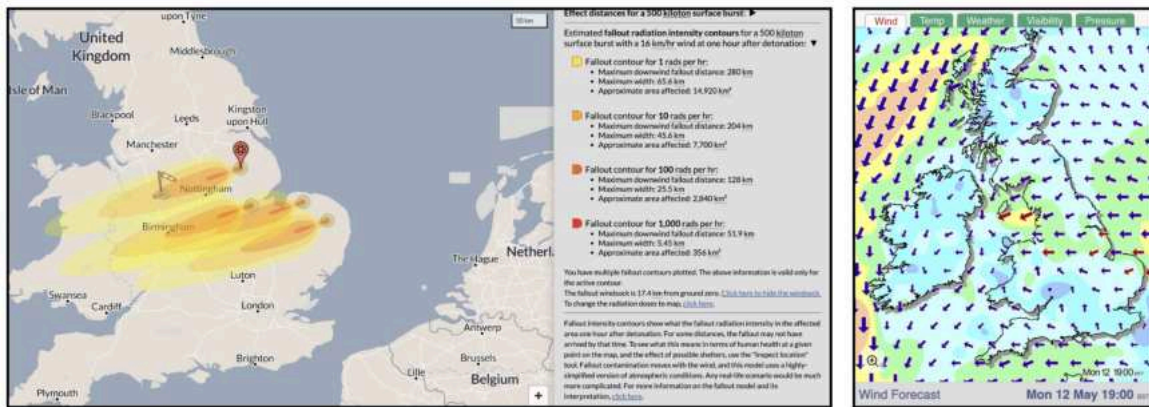
- Bedfordshire : 509 hectares

Total: 177,000 hectares (93% of England's land area). If this land is neglected or abandoned, it means the UK loses most of its cereals, potatoes, and virtually all of its vegetables and sugar beets. The dominance of East England (and the UK in general) is clearly illustrated by this map of UK land use, with the massive concentration of arable crops in the East of the country (East England, Kent, and the Edinburgh region).

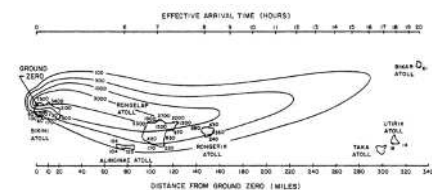


***Schematic visualization of an impact in the East (reprise of the previous attempt)***

To visualize the potential consequences of nuclear strikes on the ground (or “groundburst”) and more specifically in the most arable land of the United Kingdom, here is a visualization of potential paths with NUKEMAP and some symbolic targets in the East of England and an associated wind map (I deliberately chose the month of May to match the date of the attack in the film, even though of course the winds can vary greatly depending on the month of the year):



The bombs used were on the order of 500 kilotons. This value corresponds to the small-caliber weapons identified during Exercise Square Leg, organized in 1980 by the British authorities. NUKEMAP uses a highly simplified model (fallout never follows a straight line or such a precise path), but it gives us a general idea. In practice, it looks more like an ellipse, similar to the effects of the “Castle Bravo” nuclear test.

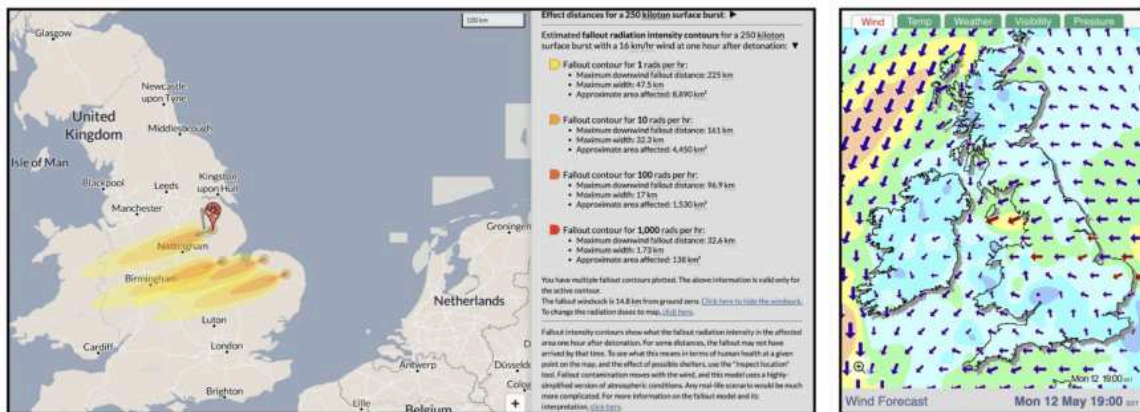


We observe that the most severe pattern of 1000 rads—a lethal dose in case of exposure—is relatively limited (the darkest red lines on the map). The bulk of the impact could be around 100 rads based on this simplified model. Note that this only considers the potentially absorbed dose; it does not take into account radioactive contamination of the soil. In general, it is estimated that:

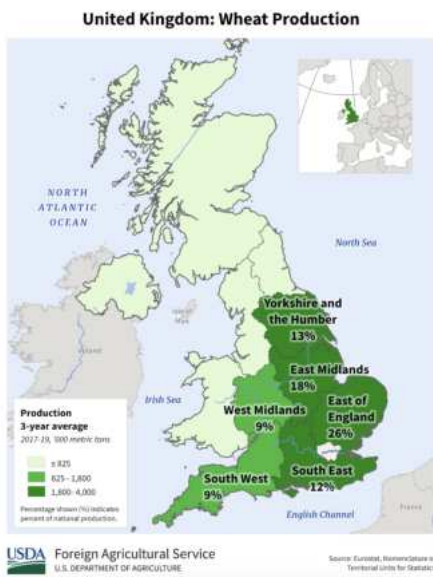
- A dose below 100 rad generally does not cause immediate symptoms other than blood changes.

- A dose of 100 to 200 rads delivered to the whole body in less than a day can cause acute radiation syndrome (ARS), but is not usually fatal.
- Doses of 200 to 1,000 rads delivered over a few hours cause serious illness, with a poor prognosis at the higher end of the range.
- Whole-body doses exceeding 1,000 rads are almost always fatal.

The size of the weapons used also affects the extent of the potential fallout. Here is a result with "lighter" weapons of 250 kilotons, with fairly similar results.



As for what would have happened on the ground, that's another story. But given the agricultural value of this region, it seems logical that the authorities concentrated their efforts there to save this arable land. To recap: the film shows us a harvest with a combine harvester, the government broadcasts a message urgently requesting survivors to participate in agricultural work, and the fictional government implements a program involving social control linked to food distribution.

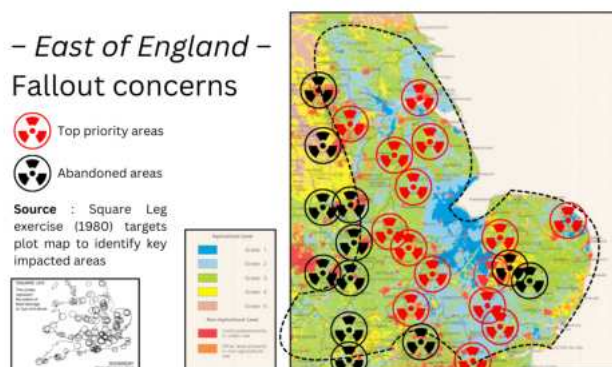


food distribution.

The United Kingdom faces a constraint inherent to its geography that would have prompted significant efforts: it is a relatively small and very compact country. The UK has productive agricultural land, but this land is

As for what would have happened on the ground, that's another story. But given the agricultural value of this region, it seems logical that the authorities concentrated their maximum efforts there to save this arable land.

As a reminder: the film shows us a harvest with a combine harvester, the government broadcasts a message urgently asking survivors to participate in agricultural work, and the fictional government implements a program involving social control related to



relatively limited in size and geographical distribution. This 2024 statistic on British cereal production (and more specifically wheat) is revealing: the majority of its production is concentrated in the east of the country.

In conclusion, here is a map of East Anglia showing the impacts based on the Square Leg exercise (1980). This is an extreme but illustrative case. The idea is to identify the most logical remediation efforts in red: around the Fens region, from Norfolk along the coast in particular, and along the coast to Yorkshire. This work is vital for preserving both soils and crops. Areas to be abandoned, considered non-priority, are shown in black.

In conclusion, it is important to discuss radionuclides. These are simply specific radioactive materials (cesium-137, strontium-90, iodine-131, etc.) that can compromise food safety. It is therefore necessary to distinguish between the foods concerned, the potential impact, and remediation measures.

- Cereals: moderate to high impact, contamination mainly of the roots and husk; further cleaning/refining of the grains is recommended.
- Leafy vegetables: high impact, direct contamination; it is recommended to wash them thoroughly and remove as many outer parts as possible.
- Root vegetables: moderate impact, risky consumption; thorough washing, deep peeling, and systematic cooking are recommended.
- Fruits: moderate impact, risky consumption, same methods as for root vegetables, but the risk of contamination of the "internal" parts persists.
- Milk: high impact, very risky consumption; it is imperative to process milk through the production of cheeses with long aging processes.
- Meat: moderate to high impact, few solutions other than avoiding muscle meat ("trimming") or waiting

### *The Buxton problem*

126. Buxton. Street in Buxton. Day.  
 JANE, JANE and others are walking through the ruins with a bag of rice.  
 126a. JANE and CLIVE look back with relief.  
 She can feel and feel JANE about JANE and others carry an umbrella. She can hear music from the radio in the distance.  
 126. Buxton. Old Buxton building.  
 JANE and JANE also show her the area and open the bag of rice. JANE reaches in a bag of rice.  
 CLIVE's Close to CLIVE's.  
 He picks it up and they begin to play around. They are walking some around and see JANE walking on the floor with someone.  
 CLIVE is a couple of meters away, a refuge hidden in a corner, a soldier hanging his head, a man behind it, the Buxton. JANE, on the way on a road, a abandoned landscape.  
 127. Buxton. Buxton. Night.  
 It is also possible here and JANE, very progress, is walking

through the streets of Buxton. As she staggers over the rubble, she passes a ramshackle house. A door is opened and we see the light inside and hear a short burst of music—the same song that was on the car radio at the very beginning.  
 JANE passes bodies hanging from a gallows. There is an atmosphere of tension and JANE is frightened.  
 SOLDIER Halt! Halt!  
 Shots are fired.

In fact, the Buxton area where Ruth settled during the Exodus Crisis is not known for its grain and other crops, but rather for its pastures and pastoral landscapes. This means she likely moved to the East of England, like many others, where most of the effort (fuel, people, machinery, etc.)

would be redirected given the logistical constraints depicted in the film. The British government in the film is clearly keen to harvest grain. For the harvest scene to be consistent with British agricultural patterns and geographically accurate, Ruth probably moved to the East or Southeast of the UK. The Peak District National Park is primarily known for its dairy and livestock products, not for grain. The soil is not considered productive enough for cultivation there, and only a negligible amount of grain is harvested within the Peak District National Park area (perhaps 2 to 5% of the land is used for crops, including grain and horticultural products).

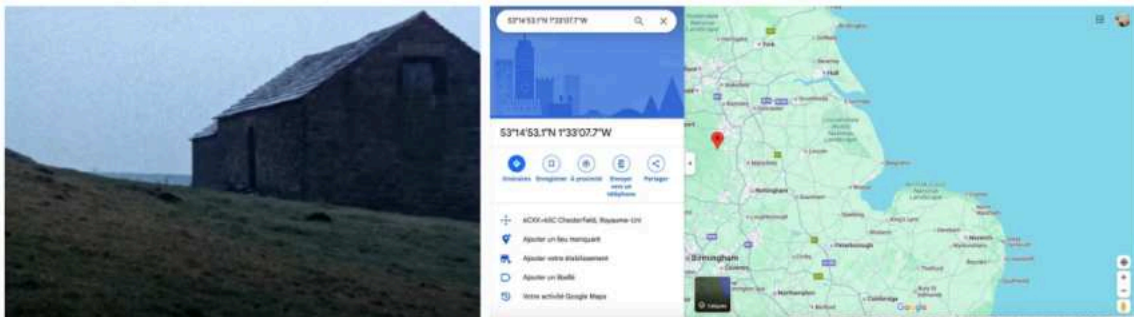


This is clearly not where the fictional British authorities would have invested their efforts in providing fuel, machinery, and dwindling technical expertise to collect the grain. One might also question why, in the original script, some of the final scenes are set in Buxton. This location doesn't correspond to a viable agricultural model (even a subsistence one) nor to the final urban scenes in devastated towns (Buxton was never hit by a nuclear strike). The level of destruction depicted on screen doesn't align with the fact that Buxton was a "refugee town" during the exodus crisis in the film.

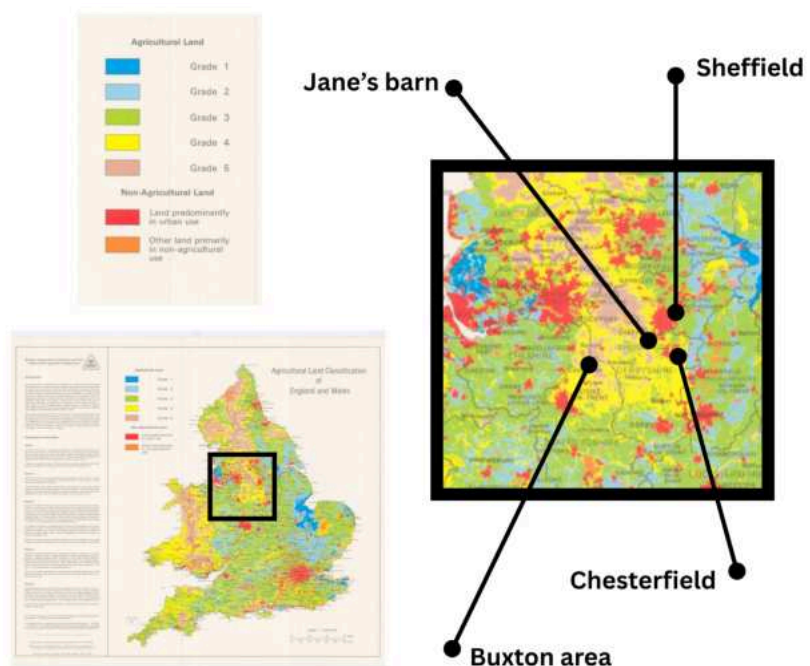


To put it humorously: it's a bit like the filmmakers deciding to show only the worst place to redevelop an agricultural system (the West of England, particularly the Buxton area); whereas by turning the camera slightly eastward, we could have seen a different result (difficult, but undoubtedly much more plausible). An interesting comparison between two agricultural landscapes, Bakewell (Derbyshire; pastures, infertile soil, and small enclosed fields) and Billingham (Lincolnshire; flat, fertile, and open land), separated by only 100 kilometers.

The East of England was therefore clearly the most suitable region for the fictional grain harvest, the most obvious setting for the agricultural reconstruction needed for the final scenes (whatever the potential challenges), and the most logical setting for the final scenes themselves, even with a different and fragmented agricultural landscape. Remember Jane's barn at the end of the film?



The barn is located at this coordinate: 53.248074, -1.552125 (Clodhall Ln, Chesterfield, England). On the border between the Peak District National Park and the agricultural lowlands of the East. The "breadbasket" of the UK. Was the least capable person in the film actually heading in the right direction after all? The mystery remains 😊 This problem with scene location—and therefore the

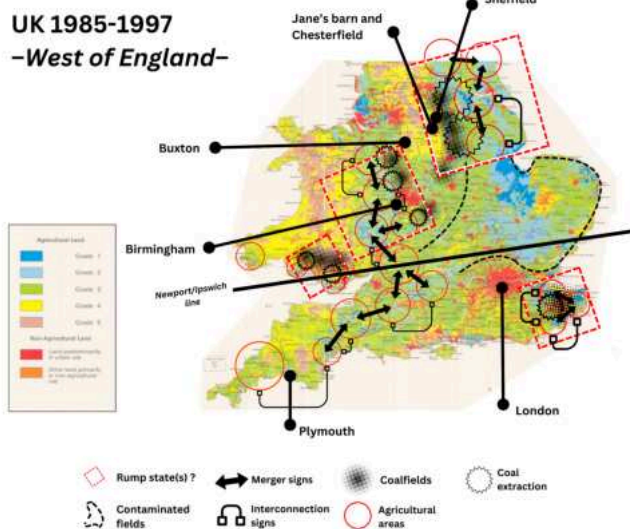


agricultural inconsistency of the film—is demonstrated by comparing this 1985 map of British soils with the approximate location of the film's scenes (i.e., the least suitable areas of the UK).

Even though large-scale, intensive commercial agriculture is clearly nonsensical in our context, the fact remains that the soil can feed people if we accept that things can be different. For the people we studied, daily food probably looks something like this: bread, potatoes, turnips, cabbage, potatoes, carrots, soup, potatoes, beets, beans, apples, peas, bread, meat, potatoes, turnips, swedes, pumpkins... it's not exactly exciting or fun. No pizza, sushi, bananas, Italian pasta, or avocados... But that's not the point. The point is that we are able to feed ourselves and others properly with what we have and can produce. And once we are sufficiently confident in our ability to produce collectively again, we can gradually and slowly move on to other subjects unrelated to food: a school, a clinic, the development of textile-related activities, the extraction of coal for a steam engine...

I am by no means idealizing manual or low-mechanization farming. I have described a difficult adaptation process that lasted a decade for many people with virtually no agricultural knowledge, or very little. It's something possible, but painful, difficult, and not universal. You will notice an important fact with this map: the national agricultural system is completely fragmented into several independent and disconnected regions/agricultural systems. Many regions are probably either in dire straits or largely abandoned.

But something inevitable also happens when you can no longer use fuel, tractors, or combine harvesters. When all that's left are hoes, cattle, scythes, rakes, and people to use them. The fact is that what we call subsistence farming is also the origin of agriculture and is still practiced by millions of people around the world. What we call "hoe farming" is far from primitive: it's the very foundation of agriculture and a basic skill, especially when nothing else is available.

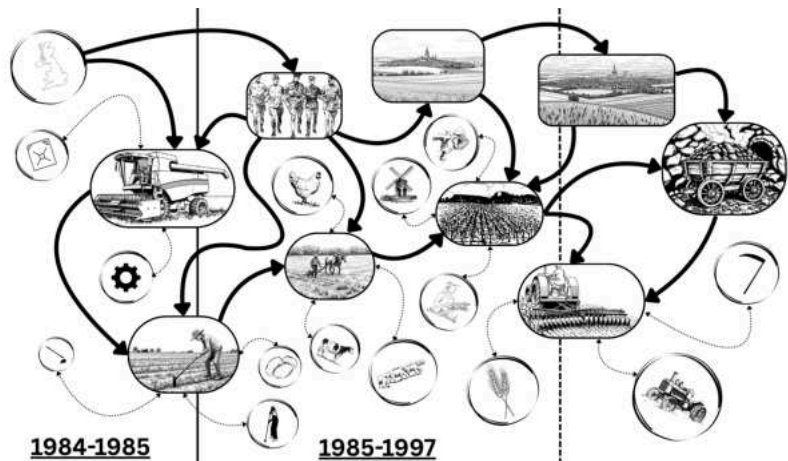


### *An alternative scenario: abandoning the East of England*

Regarding the possibility of serious radioactive impacts in the East, or even a complete abandonment of the region due to logistical problems in the first few weeks, here is a map illustrating this potential catastrophic alternative scenario. We have therefore chosen to assume here that all the major cereal-growing plains (Fens, East of England, Cambridgeshire, Essex, Lincolnshire, etc.) are completely abandoned or uncultivated.

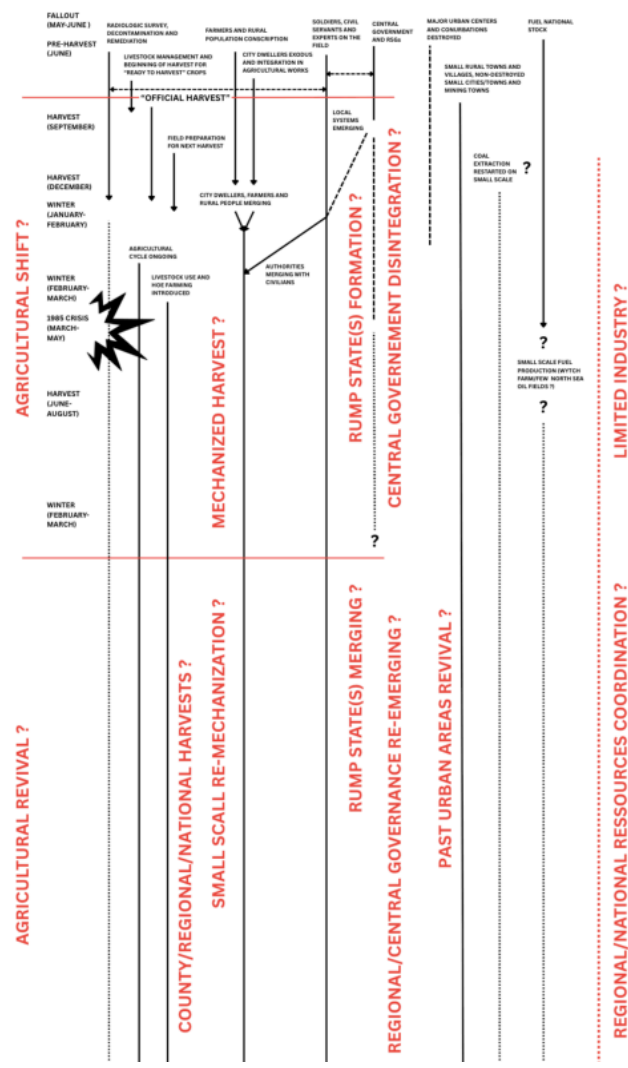
This leaves the possibility of reconstruction further north and a logical relocation of survivors to the west, namely the Shropshire-Hereford region, the far reaches of Wales, the South West of England, and Kent. This solution seems less viable because it would mean abandoning the most arable land and the majority of the country's agricultural production, as mentioned above. It would

also deprive many remaining mining and industrial centers. The need to support a large number of survivors in the South West creates significant constraints: the region has no coal mines, little remaining industrial capacity, and the main activity is livestock farming. Even where agricultural opportunities exist, they remain limited in South Wales and the Hereford-Shropshire region.



**The agricultural curve**

To conclude this section, here is the agricultural logic that could have taken place from the end of mechanization, through the transition to manual agriculture, to the use of draft animals until the return of machines to the fields.



Achieving this agricultural curve, necessary for the existence of potentially tens of millions of people 10 years later, requires the implementation of numerous actions during the first year.

**Coal**

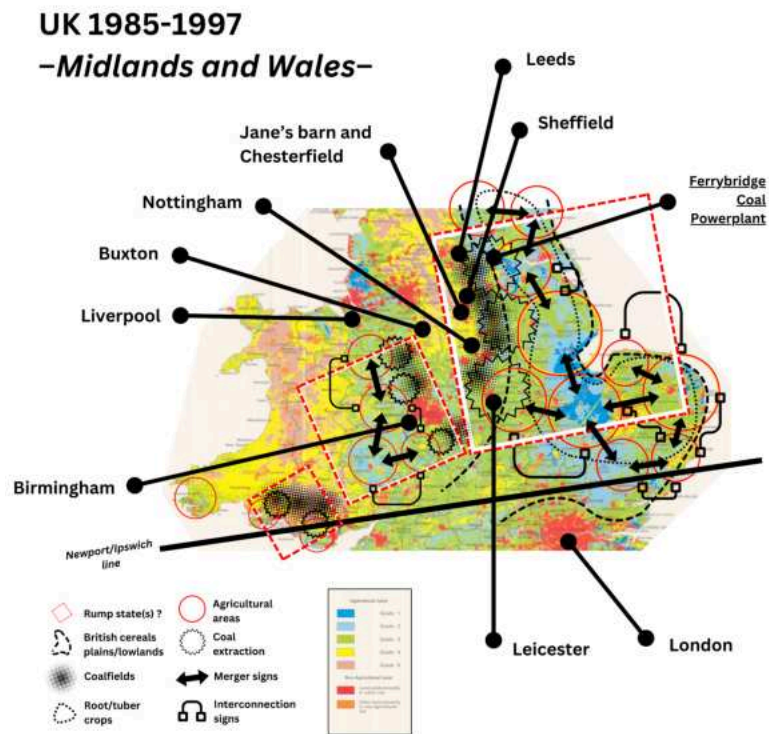
Although we have mostly talked about agriculture – the mandatory biological prerequisite for the survival of such a large population according to the film's figures – it is also important to talk about coal.

Regarding coal, it seems essential to maintain its extraction wherever possible, primarily due to the need for heating, lighting, and cooking. The UK had few alternative sources such as wood (forest cover was less than 5-6% in the 1980s) or peat (which had become very marginal at the time). Furthermore, there is a risk of being unable to start or sustain this activity in the long term if it is not continued over time. The film suggests that this activity was only revived ten years later. The logical approach would be to continue the activity (even if less well-coordinated in some regions) and to

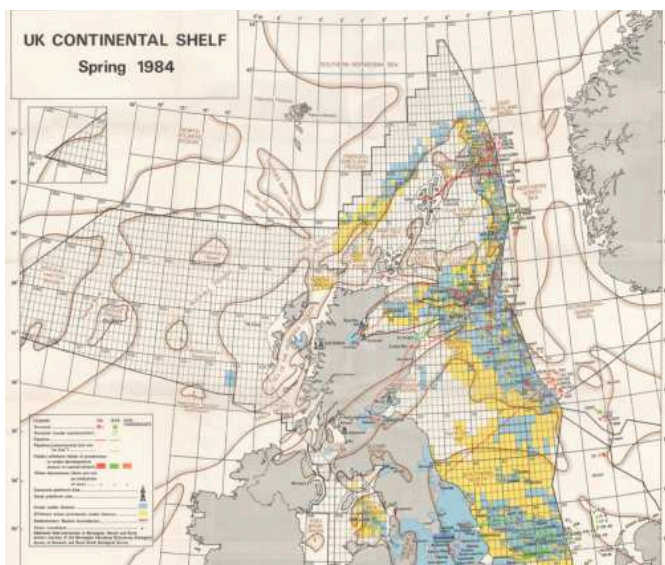
progressively rebuild its extraction and processing capacity on a regional scale.

If we refer to the demographic data in the film (4 to 10 million inhabitants) and the figures for British production between 1700 and 1800 (which correspond to these population ranges), this places the extracted volume at between 2 and 10 million tons. In 1841, there were approximately 220,000 miners. By comparison, the British mining industry still employed 150,000 people in 1983.

The coalfields still active at the time were: the Glasgow-Edinburgh region, Cambria (albeit a marginal area), Teesside, the Midlands (Yorkshire, Nottinghamshire, Leicestershire, Worcestershire, Shropshire, etc.), South Wales, and Kent. All of this implies, as with agriculture, the maintenance of coordination at the county or regional level; and therefore the logic of coexistence between coalfields and agricultural land. The Midlands and South Wales provide an example of this, and could even be considered a single integrated area.



We find here the same logic of regions (the “fragmentary states” mentioned above) logically formed by the overlapping of coal and arable land (the Cardiff-Swansea, Hereford-Shropshire, and East Anglia regions). Regarding electricity, we mentioned earlier the need for either a coal-fired power station or converted steam engines. It is more logical that electricity was restored a year after the attack, and that a regional power grid was brought back online a decade later.



### Oil

Regarding gasoline, the United Kingdom was a very large oil producer during the 1980s thanks to North Sea oil. The drawback was that all of this potential was essentially located quite far from the British coast, particularly near the Scottish coast.

The United Kingdom also possessed some oil and gas fields on its own soil, notably at Wytch Farm in the South West since the 1970s, and developments had been underway since the early 1980s in the Nottingham and Lincolnshire area. The UK also produced natural gas, the fields from which were located closer to the east coast of England, as shown on the map. It would be unreasonable to assume that the authorities would not have attempted to restore the numerous pipelines and communications links to these oil and gas drilling sites.

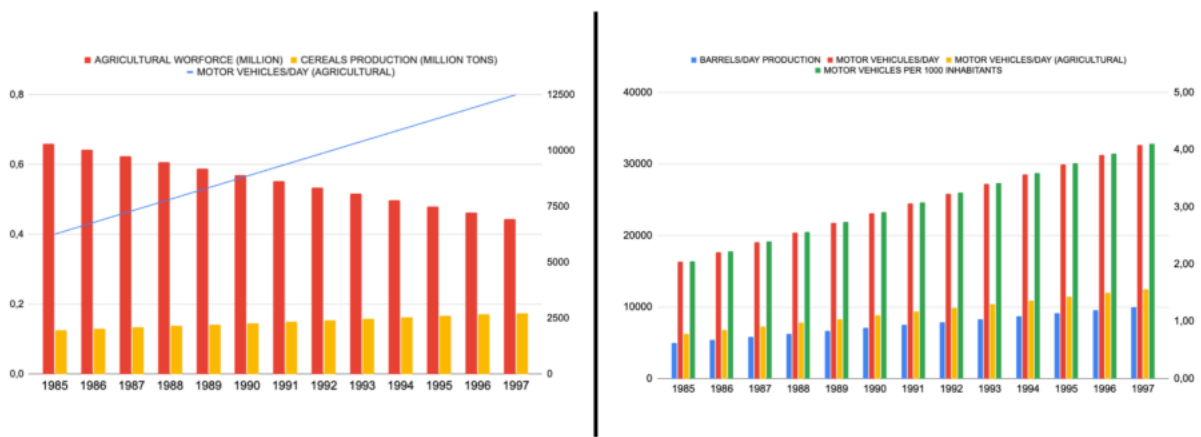
The oil terminals in Northern Scotland would logically have presented major logistical problems for their restart, given their distance from the urban areas of Glasgow and Edinburgh. The logical approach would therefore have been to concentrate on restarting or repairing certain infrastructure in this urban region. In contrast, the Teesside oil terminal and the gas terminals in Humberside, Lincolnshire, and Norfolk fit very logically within the framework of redeveloping critical infrastructure in a region of strategic agricultural importance. Similarly, restarting the wells in the Wytch Farm area seems crucial, as the zone



was capable at the time of potentially producing several thousand barrels of oil. A negligible amount in peacetime, but crucial in the context of that first year and also for the following decade. We could therefore assume, particularly due to the constraints of feeding a substantial population a decade later, which would involve

agricultural machinery, even a minimal production of gasoline (5000-10000 barrels/day for example) gradually re-developed during the decade.

If we cross-reference this information with our previous discussions on agriculture and the necessary yields, we could count on the maintenance and gradual redevelopment of agricultural mechanization, illustrated by these two graphs:



Logically, we should therefore expect to see:

- A gradual decrease in the agricultural workforce (after an extreme of 60%, returning to around 40%)

- The gradual expansion of mechanization, to reach an average ratio of 4 vehicles per 1000 inhabitants

These constraints are clearly linked to the substantial size of the population (more than tens of millions of people), the small proportion of individuals with agricultural training enabling them to provide for themselves, the inadequacy of the British agricultural landscape for subsistence farming, and the need to justify significant agricultural surpluses by the end of the decade.

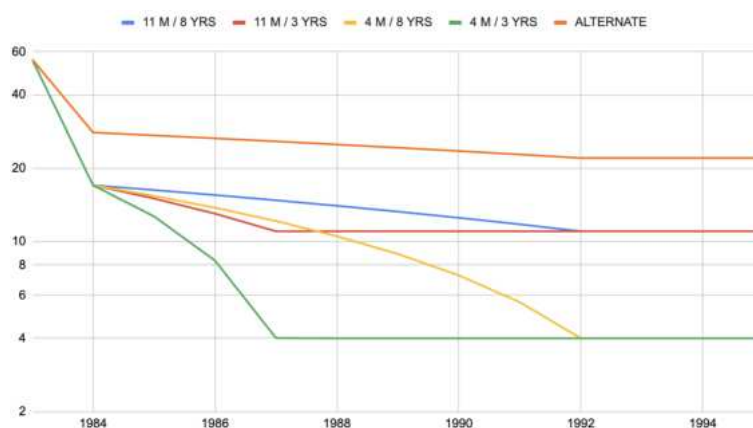
### ***On Demography***

Regarding demographics, and given the points discussed above, it seems important to reiterate the film's shortcomings on this subject. As a reminder, the population of the United Kingdom was 56 million in 1984. If we follow the figures presented in the film, we obtain:

- 2.5 to 9 million victims during the attack (the only figure given by the film at the time of the attack), therefore a remaining population of 53.5 or 47 million
- 17 to 39 million direct victims of the attack (figure given by the film 4 months after the attack), therefore a remaining population of 39 or 17 million people

The film indicates that the lowest point is reached between 3 and 8 years later, with a population of 4 to 11 million individuals. As mentioned above, several problems will arise, including the survival of non-agricultural populations, a population that did not exceed 1 million people in 1983. The reality is that the lowest point is likely to be reached at much lower levels, and perhaps even by the end of the first year if nothing has been done. If we accept the film's figures, two conclusions can be drawn (based on the figure of 17 million survivors):

- The figure of 4 million indicates, in our view, a total demographic and societal collapse, and logically the inability of the survivors to have a viable agricultural system or to have been able to organize the slightest transition during the first year and afterwards, therefore logically the final scenes with the return of electricity and coal are unlikely (weak social cohesion, country emptied of its inhabitants, no more livestock, massive loss of know-how, primitive agriculture...)
- The figure of 11 million indicates a significant (but also more logical) level of stabilization and resilience, and the existence of a collective capacity to have been able to organize and face significant challenges.



The famine of March-May 1985 forces us to conclude that the demographic shock did not occur three years later, regardless of the scenario, as the figures for demographic decline reach several million per year in the case of long-term projections. We can therefore deduce that:

- The figure of 4 million therefore seems unlikely given its societal and agricultural

implications, as it logically jeopardizes the survival of all the children seen on screen 10 years later (and particularly Jane), as well as the social, institutional, and industrial structures necessary for the final scenes; in such a context, the minimum would be much lower.

- The figure of 11 million reflects an early rebound or stabilization, which can be attributed to industrial, agricultural, and institutional know-how that was preserved or redeveloped over the decade.

A survival rate of 20-25% of the pre-war population (12-15 million) could even be expected a decade later. These proportions logically allow for a densely populated country, preserved skills, and proof of a necessary capacity for adaptation implemented collectively—elements compromised by a major crash. For historical comparison, England's population was approximately 4.8 million in 1348 at the time of the Black Death. A first low point was reached in 1351 with 2.6 million inhabitants (54% of the pre-Black Death population), followed by a second low point in 1450 with 1.9 million inhabitants (40% of the pre-Black Death population). Here is a graph that summarizes these curves with the inclusion of an alternative scenario based on British demographics at the time of the Black Death (initial decline of 50% of the population and stabilization around 40%).

If we analyze the curves for the scenario of a population stabilized at around 11 million individuals:

- The "11M / 8 YRS" curve in blue shows a relatively significant population decline in the first year due to the demographic shock, but remains relatively controlled in the long term with a more gradual curve (low point of 11 million reached 8 years after the attack)
- The "11M / 3 YRS" curve in blue shows a relatively large population decline in the first year due to the demographic shock, but very quickly stabilized (low point of 11 million reached 3 years after the attack)

Potential and human capital are relatively well preserved (20% of the pre-war population), and both curves point to a scenario where society has successfully completed its agricultural/societal transition. If we analyze the curves for the scenario of a population stabilized at around 4 million individuals:

- The "4 M / 8 YRS" curve in orange shows a relatively large population decline in the first year, then a constant decline throughout the decade, and a decline that is poorly controlled over the decade (low point of 4 million reached 8 years after the attack).
- The orange "4M / 3 YRS" curve shows a sharp and freefalling population decline in less than 3 years (low point of 4 million reached 3 years after the attack)

Visually, these two scenarios indicate a failure of the transition to a new agricultural/societal model following the setbacks of the first year after the attack. The scenario of a three-year decline to less than 7% of the pre-war population seems to irrevocably compromise any serious possibility of a very long-term rebound, or even of demographic survival in the medium term.

In historical comparison, we have examples of complex, technologically advanced civilizations that were unable to recover beyond certain critical thresholds of demographic decline. For example:

- The Khmer Empire lost, upon its collapse (and for several centuries thereafter), all capacity to maintain its urban system after its fall, with Angkor being almost completely abandoned, despite the survival of rural populations.
- The case of the Maya presents the same picture, with the abandonment of complex systems following major climatic/societal disruptions.

The fall of the Roman Empire is interesting because it presents a "comparable" picture from a technological standpoint. During its collapse, technical and industrial know-how disappeared: aqueducts, road construction, and even the famous "Roman concrete" (opus caementicium). In our context, the society depicted on screen is capable, a decade later, of extracting coal and restarting a complex technology: electricity. Furthermore, these technologies are "fragile," implying at least partial maintenance during the decade not depicted in the film. By comparison, it took several centuries after the collapse of the Roman Empire to recover certain technological and administrative systems (urban planning, cathedral construction, medicine, etc.). In our context, the film shows the United Kingdom in total isolation a decade later, which logically imposes three obligations:

- Maintenance, recommissioning and use, even partial, of technical infrastructure (mines, electricity production, perhaps "residual" oil production...)
- A critical population threshold (probably around ten million people and with rapid stabilization) is needed to maintain, transmit, and redevelop these skills as needed over the next decade.
- A society and its governance (whatever form they take) are needed to maintain its infrastructure/knowledge, even at a minimal level.

Without these three conditions, we logically witness the disappearance of technical infrastructure, the loss of numerous skills, and the complete disintegration of human communities. Logically, the society depicted on screen ten years later would not have access to coal or electricity. And if society has declined so drastically, the only plausible explanation would be foreign aid, but this is neither explicitly nor implicitly described by the film. Or a significant level of resilience and organization, which the film denies.

### ***The question of bread***

One topic not addressed in the film, but shown in one scene, is the question of breadmaking. This food is important because it distinguishes primitive subsistence societies from others. It is also a product that could be described as civilizational because it involves chains of production, processing, storage, and distribution, however minimal. First, as we have seen, breadmaking requires cereals (wheat or barley). As the film shows, this necessarily implies, as we indicated above, the continued use of animal traction (and therefore the preservation of a significant proportion of cattle in the first weeks and months following the attack) and the plow, even if the film does not seem to acknowledge or admit this, since cereals cannot be cultivated on a large scale without these two prerequisites.



The continued cultivation of cereals over the decade, even if less efficient, is, moreover, a biological imperative for its survival. Cereal cultivation had to continue: bread did not reappear ten years later without sustained agricultural effort. But the question that interests us here is: what type of bread and how?

The logical answer would be to primarily make barley bread. Firstly, because England produces large quantities of barley (both winter and spring varieties) in all grain-growing regions. It would therefore have been logical to use these grains. The second reason is logistical. Wheat is very demanding in terms of processing; the bran must be removed, and then it must undergo a complex transformation process to obtain finely milled, bread-making flour, which results in losses. Yeast is also required. Rustic flatbreads can certainly be made, but this is not optimal given the energy required with wheat.

Barley, on the other hand, offers numerous advantages. In fact, it may have been one of the first types of bread made in the British Isles as early as the Iron Age. Barley has a husk, but its use for centuries, even millennia, by many societies around the world is probably the best proof of its ease of production, especially in the absence of sophisticated techniques. Barley is not suitable for breadmaking in the strictest sense (modern barley breads are often mixed with wheat flour). This type of bread is even explicitly mentioned in the Hebrew Bible in the Book of Judges. It is the ideal bread in challenging logistical situations: its processing is relatively simple compared to wheat, it does not require yeast, and it can be baked using simplified methods. Far from being primitive (this bread is still widely consumed in the Maghreb and the Near/Middle East, it is mentioned in the Bible and it has been the food of many populations for several civilizations), barley bread would almost be a return to Celtic roots in our context.



### ***Textiles: clothing and footwear***

The film, set a decade later, depicts children dressed in clothes that are sometimes in tatters, and, more strikingly, people wearing plastic or paper shoes. This is evidenced by the photograph of a soldier, head bowed, near the end of the film. The mere fact that a sufficiently robust agricultural system would have had to not only persist for a year after the attack but also recover throughout a decade to reach the final scenes, and thus support the film's own figures of 4 to 10 million survivors, leads us to the logical conclusion that this is not very realistic. This is especially true since the society portrayed on screen is logically undergoing reindustrialization. Although not explicitly stated in the film, the scene where the children collect yarn points to the development of this activity. What form could this activity, necessary for the survival of millions of people for a decade, have taken?



Regarding footwear, we mentioned earlier the need to maintain a large herd of cattle to ensure the extensive plowing required to support this population. This implies that the population normally has the capacity to produce leather in varying quantities. This is important because leather is the logical material for making shoes, however simple. They are a necessity, and their absence would be illogical given the reintroduction of coal and industrial

infrastructure. The plastic or cardboard shown in the film are probably not available and, in any case, not very durable. The simplest model to produce—but very primitive and not very consistent with the logical state of the society depicted on screen—would be something like a shoe made from a single piece of leather, closed with a central seam serving as a closure/lace; similar to the earliest shoes made by early European populations (such as the oldest known shoe, Areni-1, which is over 5,000 years old). Given the obvious technical and societal context on screen, something more logical would be to manufacture “turnshoes”, a name referring to the manufacturing process of sewing it inside out and then turning it right side out.

Regarding textiles, and therefore clothing production, several solutions should logically have existed. First, it would have been unthinkable to collect the clothes of the dead and bury them naked: an obvious social taboo in a structured society, which must logically exist in the film's universe. They should at least have been shrouded. Recycling pre-war stock in stores is an option, as with shoes, but only in the short term. It was therefore necessary to manufacture, or at the very least maintain, the clothing. Weaving seems necessary for all the larger items: trousers, t-shirts (or rather tunics), or dresses.



Knitting seems more logical for all the smaller items: hats, neck warmers, scarves, etc. It can be done with a needle but also with knitting looms. Here is an example I made myself, drawing on my long experience as a textile craftsperson. The study “Knitwork: Creativity and the Manufacture of British Designer Knitwear in the 1980s” reveals an interesting fact about the United Kingdom: home-based work was very widespread in textile production until the mid-1980s. One interesting statistic: the study mentions that it was estimated that up to 44% of women's clothing manufactured in London was made by home-based workers. This wasn't necessarily the case in all regions of England, but the potential must have existed given Britain's long textile history.

### *Vexillology and East England*

Here is a close-up of the map seen above, overlaying our map (and in particular our "Crop Producers" agricultural area) with the pre-1996 English county map (this system having undergone numerous revisions over time); the aim being to cross-reference it with 1983 British statistics. Our agricultural area in the East of England therefore includes the following British counties: Humberside, Lincolnshire, Nottinghamshire, Leicestershire, Cambridgeshire, Norfolk, and Suffolk. The table below contains the British government's agricultural data for 1983 by county in England (Source: Agricultural Statistics United Kingdom 1983, Ministry of Agriculture, Fisheries and Food, Department of Agriculture and Fisheries for Scotland, Department of Agriculture for Northern Ireland, Welsh Office).

CULTURES (Hectares)	CAMBRIDGESHIRE	SUFFOLK	NORFOLK	LEICESTERSHIRE	LINCOLNSHIRE	NOTTINGHAMSHIRE	HUMBERSIDE	TOTAL
Blé	122 129	107 365	95 225	46 036	18 167	39 453	90 521	428 375
Orge	55 947	73 402	121 613	35 707	10 685	39 471	84 727	336 825
Carottes	2 632	2 085	4 271	1	44	349	200	9 582
Choux	257	31	379	20	203	110	183	1 183
Chou-fleur et brocoli	83	140	119	14	624	60	14	1 054
Choux de bruxelles	292	177	447	21	275	95	473	1 780
Pois verts	1 690	3 616	5 967	104	1 454	698	8 589	13 529
Haricots (blancs, verts...)	372	1 065	1 850	11	127	40	127	3 592
Onions, salades et bubble	1 784	315	630	3	264	65	26	3 087
Vergers	2 170	1 609	1 870	4	19	103	2	5 777
Fruits	504	376	1 727	174	361	194	183	3 519
Pommes de terre	12 653	4 038	12 406	1 658	2 006	4 976	7 884	37 737
Betterave sucrière	23 851	24 694	58 670	799	3 302	8 156	9 655	119 472
BETAIL (Nombres)								
Bovins et veaux (total)	43 072	93 865	134 972	193 375	149 061	86 501	98 945	700 846
Volailles (total)	2 305 988	4 185 420	5 163 871	1 265 061	5 469 422	969 790	1 585 299	19 359 552

To conclude on this topic: what might be the flag of the "fragmentary state"? More than a concrete project, the idea is primarily to explore the new narratives that can emerge in a society undergoing reconstruction and seeking to forge a new identity. Given the total collapse of past society and institutions, something new is imperative. Something not associated with past institutions, linked to the utter failure in the year following the nuclear attack and the societal collapse resulting from the failure of the "work-for-food" program.

One-third for coal, two-thirds for fields. Agriculture takes precedence over industry and coal. The wheat symbol is used as a common agricultural symbol and is reproduced three times: the sole symbol of the "past," when the country was a major grain producer, and also to represent the hope of gradually increasing its growth again. The flag will not use any past political symbols, reflecting the compromise required for reconstruction and the future of society.



The unknown factor, in terms of identity, is the very existence of the British royal family. As mentioned above, the film shows us a highly fragmented world a decade later, one that seems to operate outside the traditional norms of the state. Consequently, we can infer that the royal institution—within the classic British institutional framework—no longer exists in the past sense, even if its members might have survived physically. The English have always had a strong attachment to their royal family, but given the context, it would seem logical that the project of a royal institution would be eclipsed by other priorities. The survival—in an institutional sense—of the former British nobility is also unlikely. Here is a symbolic flag of compromise: still the division of one-third coal and two-thirds for the fields. But this time, a major British symbol is inserted: St. Edward's Crown, used at the coronations of British monarchs.



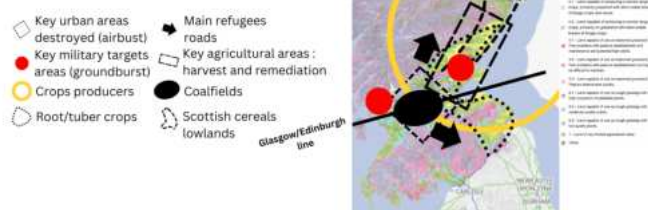
### *A brief chronicle of Scotland*

The majority of this article has dealt primarily with England (and indirectly with Wales). But what would have become of Scotland? Despite its significant geographical isolation, the region would undoubtedly have possessed several key qualities that would have allowed it to recover like other parts of the United Kingdom. Firstly, Scotland did not have as

– Scotland –  
Fallout concerns



THREADS' GEOGRAPHY  
– Scotland –  
1984-1997



many urban or military targets as England: primarily the ports and cities of Glasgow and Edinburgh. The region also had coal mines located between these two cities. Here is a possible outline of the remediation efforts during the first year.

An interesting fact concerns Scotland: in the 1960s, this was the region where the British royal family was to take

refuge in the event of a major conflict, specifically in a yacht or residence near the lochs in northwest Scotland. This plan was replaced in subsequent years by the regrouping of the royal family and the government in a bunker in the Corsham area (southwest England).

The main constraint was its agriculture which, although developed (cereals, livestock, roots/tubers...), was dependent on a fairly small area of arable land compared to the size of the territory, and concentrated along the coast from Edinburgh in the Southeast to Aberdeen in the Northeast approximately.

Producing mainly barley, the region had a somewhat less diversified but well-established agricultural base than the East of England (particularly with regard to vegetables and fruit); as well as a substantial livestock population.

Above, the British government statistics from 1983 on Scottish agriculture (Source: Agricultural Statistics United Kingdom 1983, MINISTRY OF AGRICULTURE, FISHERIES AND FOOD DEPARTMENT OF AGRICULTURE AND FISHERIES FOR SCOTLAND DEPARTMENT OF AGRICULTURE FOR NORTHERN IRELAND WELSH OFFICE).

Table 3.4  
LEITHRICK  
(The Agricultural Holdings  
WITL 1983)  
1979 to 1983 (at the Base Census)

	1979	1980	1981	1982	1983
<b>Cattle and calves: Total</b>	1,297,851	1,391,280	1,290,436	1,233,259	1,332,087
Cows in milk	225,551	225,573	222,071	226,029	226,118
Cows in milk not in milk	29,281	22,979	22,924	29,220	22,563
Calves (all ages)	1,043,019	1,142,728	1,045,441	977,910	1,083,406
Calves (1-12 months)	32,279	32,975	32,524	29,821	29,717
Calves (13-24 months)	97,939	72,229	75,277	72,271	72,223
Calves (25-36 months)	1,012,801	1,037,524	937,640	875,818	981,466
Calves (37-48 months)	58,000	59,999	59,970	59,989	59,989
Calves (49-60 months)	1,000	1,000	1,000	1,000	1,000
Calves (61-72 months)	1,000	1,000	1,000	1,000	1,000
Calves (73-84 months)	1,000	1,000	1,000	1,000	1,000
Calves (85-96 months)	1,000	1,000	1,000	1,000	1,000
Calves (97-108 months)	1,000	1,000	1,000	1,000	1,000
Calves (109-120 months)	1,000	1,000	1,000	1,000	1,000
Calves (121-132 months)	1,000	1,000	1,000	1,000	1,000
Calves (133-144 months)	1,000	1,000	1,000	1,000	1,000
Calves (145-156 months)	1,000	1,000	1,000	1,000	1,000
Calves (157-168 months)	1,000	1,000	1,000	1,000	1,000
Calves (169-180 months)	1,000	1,000	1,000	1,000	1,000
Calves (181-192 months)	1,000	1,000	1,000	1,000	1,000
Calves (193-204 months)	1,000	1,000	1,000	1,000	1,000
Calves (205-216 months)	1,000	1,000	1,000	1,000	1,000
Calves (217-228 months)	1,000	1,000	1,000	1,000	1,000
Calves (229-240 months)	1,000	1,000	1,000	1,000	1,000
Calves (241-252 months)	1,000	1,000	1,000	1,000	1,000
Calves (253-264 months)	1,000	1,000	1,000	1,000	1,000
Calves (265-276 months)	1,000	1,000	1,000	1,000	1,000
Calves (277-288 months)	1,000	1,000	1,000	1,000	1,000
Calves (289-300 months)	1,000	1,000	1,000	1,000	1,000
Calves (301-312 months)	1,000	1,000	1,000	1,000	1,000
Calves (313-324 months)	1,000	1,000	1,000	1,000	1,000
Calves (325-336 months)	1,000	1,000	1,000	1,000	1,000
Calves (337-348 months)	1,000	1,000	1,000	1,000	1,000
Calves (349-360 months)	1,000	1,000	1,000	1,000	1,000
Calves (361-372 months)	1,000	1,000	1,000	1,000	1,000
Calves (373-384 months)	1,000	1,000	1,000	1,000	1,000
Calves (385-396 months)	1,000	1,000	1,000	1,000	1,000
Calves (397-408 months)	1,000	1,000	1,000	1,000	1,000
Calves (409-420 months)	1,000	1,000	1,000	1,000	1,000
Calves (421-432 months)	1,000	1,000	1,000	1,000	1,000
Calves (433-444 months)	1,000	1,000	1,000	1,000	1,000
Calves (445-456 months)	1,000	1,000	1,000	1,000	1,000
Calves (457-468 months)	1,000	1,000	1,000	1,000	1,000
Calves (469-480 months)	1,000	1,000	1,000	1,000	1,000
Calves (481-492 months)	1,000	1,000	1,000	1,000	1,000
Calves (493-504 months)	1,000	1,000	1,000	1,000	1,000
Calves (505-516 months)	1,000	1,000	1,000	1,000	1,000
Calves (517-528 months)	1,000	1,000	1,000	1,000	1,000
Calves (529-540 months)	1,000	1,000	1,000	1,000	1,000
Calves (541-552 months)	1,000	1,000	1,000	1,000	1,000
Calves (553-564 months)	1,000	1,000	1,000	1,000	1,000
Calves (565-576 months)	1,000	1,000	1,000	1,000	1,000
Calves (577-588 months)	1,000	1,000	1,000	1,000	1,000
Calves (589-600 months)	1,000	1,000	1,000	1,000	1,000
Calves (601-612 months)	1,000	1,000	1,000	1,000	1,000
Calves (613-624 months)	1,000	1,000	1,000	1,000	1,000
Calves (625-636 months)	1,000	1,000	1,000	1,000	1,000
Calves (637-648 months)	1,000	1,000	1,000	1,000	1,000
Calves (649-660 months)	1,000	1,000	1,000	1,000	1,000
Calves (661-672 months)	1,000	1,000	1,000	1,000	1,000
Calves (673-684 months)	1,000	1,000	1,000	1,000	1,000
Calves (685-696 months)	1,000	1,000	1,000	1,000	1,000
Calves (697-708 months)	1,000	1,000	1,000	1,000	1,000
Calves (709-720 months)	1,000	1,000	1,000	1,000	1,000
Calves (721-732 months)	1,000	1,000	1,000	1,000	1,000
Calves (733-744 months)	1,000	1,000	1,000	1,000	1,000
Calves (745-756 months)	1,000	1,000	1,000	1,000	1,000
Calves (757-768 months)	1,000	1,000	1,000	1,000	1,000
Calves (769-780 months)	1,000	1,000	1,000	1,000	1,000
Calves (781-792 months)	1,000	1,000	1,000	1,000	1,000
Calves (793-804 months)	1,000	1,000	1,000	1,000	1,000
Calves (805-816 months)	1,000	1,000	1,000	1,000	1,000
Calves (817-828 months)	1,000	1,000	1,000	1,000	1,000
Calves (829-840 months)	1,000	1,000	1,000	1,000	1,000
Calves (841-852 months)	1,000	1,000	1,000	1,000	1,000
Calves (853-864 months)	1,000	1,000	1,000	1,000	1,000
Calves (865-876 months)	1,000	1,000	1,000	1,000	1,000
Calves (877-888 months)	1,000	1,000	1,000	1,000	1,000
Calves (889-900 months)	1,000	1,000	1,000	1,000	1,000
Calves (901-912 months)	1,000	1,000	1,000	1,000	1,000
Calves (913-924 months)	1,000	1,000	1,000	1,000	1,000
Calves (925-936 months)	1,000	1,000	1,000	1,000	1,000
Calves (937-948 months)	1,000	1,000	1,000	1,000	1,000
Calves (949-960 months)	1,000	1,000	1,000	1,000	1,000
Calves (961-972 months)	1,000	1,000	1,000	1,000	1,000
Calves (973-984 months)	1,000	1,000	1,000	1,000	1,000
Calves (985-996 months)	1,000	1,000	1,000	1,000	1,000
Calves (997-1008 months)	1,000	1,000	1,000	1,000	1,000
Calves (1009-1020 months)	1,000	1,000	1,000	1,000	1,000
Calves (1021-1032 months)	1,000	1,000	1,000	1,000	1,000
Calves (1033-1044 months)	1,000	1,000	1,000	1,000	1,000
Calves (1045-1056 months)	1,000	1,000	1,000	1,000	1,000
Calves (1057-1068 months)	1,000	1,000	1,000	1,000	1,000
Calves (1069-1080 months)	1,000	1,000	1,000	1,000	1,000
Calves (1081-1092 months)	1,000	1,000	1,000	1,000	1,000
Calves (1093-1104 months)	1,000	1,000	1,000	1,000	1,000
Calves (1105-1116 months)	1,000	1,000	1,000	1,000	1,000
Calves (1117-1128 months)	1,000	1,000	1,000	1,000	1,000
Calves (1129-1140 months)	1,000	1,000	1,000	1,000	1,000
Calves (1141-1152 months)	1,000	1,000	1,000	1,000	1,000
Calves (1153-1164 months)	1,000	1,000	1,000	1,000	1,000
Calves (1165-1176 months)	1,000	1,000	1,000	1,000	1,000
Calves (1177-1188 months)	1,000	1,000	1,000	1,000	1,000
Calves (1189-1200 months)	1,000	1,000	1,000	1,000	1,000
Calves (1201-1212 months)	1,000	1,000	1,000	1,000	1,000
Calves (1213-1224 months)	1,000	1,000	1,000	1,000	1,000
Calves (1225-1236 months)	1,000	1,000	1,000	1,000	1,000
Calves (1237-1248 months)	1,000	1,000	1,000	1,000	1,000
Calves (1249-1260 months)	1,000	1,000	1,000	1,000	1,000
Calves (1261-1272 months)	1,000	1,000	1,000	1,000	1,000
Calves (1273-1284 months)	1,000	1,000	1,000	1,000	1,000
Calves (1285-1296 months)	1,000	1,000	1,000	1,000	1,000
Calves (1297-1308 months)	1,000	1,000	1,000	1,000	1,000
Calves (1309-1320 months)	1,000	1,000	1,000	1,000	1,000
Calves (1321-1332 months)	1,000	1,000	1,000	1,000	1,000
Calves (1333-1344 months)	1,000	1,000	1,000	1,000	1,000
Calves (1345-1356 months)	1,000	1,000	1,000	1,000	1,000
Calves (1357-1368 months)	1,000	1,000	1,000	1,000	1,000
Calves (1369-1380 months)	1,000	1,000	1,000	1,000	1,000
Calves (1381-1392 months)	1,000	1,000	1,000	1,000	1,000
Calves (1393-1404 months)	1,000	1,000	1,000	1,000	1,000
Calves (1405-1416 months)	1,000	1,000	1,000	1,000	1,000
Calves (1417-1428 months)	1,000	1,000	1,000	1,000	1,000
Calves (1429-1440 months)	1,000	1,000	1,000	1,000	1,000
Calves (1441-1452 months)	1,000	1,000	1,000	1,000	1,000
Calves (1453-1464 months)	1,000	1,000	1,000	1,000	1,000
Calves (1465-1476 months)	1,000	1,000	1,000	1,000	1,000
Calves (1477-1488 months)	1,000	1,000	1,000	1,000	1,000
Calves (1489-1500 months)	1,000	1,000	1,000	1,000	1,000
Calves (1501-1512 months)	1,000	1,000	1,000	1,000	1,000
Calves (1513-1524 months)	1,000	1,000	1,000	1,000	1,000
Calves (1525-1536 months)	1,000	1,000	1,000	1,000	1,000
Calves (1537-1548 months)	1,000	1,000	1,000	1,000	1,000
Calves (1549-1560 months)	1,000	1,000	1,000	1,000	1,000
Calves (1561-1572 months)	1,000	1,000	1,000	1,000	1,000
Calves (1573-1584 months)	1,000	1,000	1,000	1,000	1,000
Calves (1585-1596 months)	1,000	1,000	1,000	1,000	1,000
Calves (1597-1608 months)	1,000	1,000	1,000	1,000	1,000
Calves (1609-1620 months)	1,000	1,000	1,000	1,000	1,000
Calves (1621-1632 months)	1,000	1,000	1,000	1,000	1,000
Calves (1633-1644 months)	1,000	1,000	1,000	1,000	1,000
Calves (1645-1656 months)	1,000	1,000	1,000	1,000	1,000
Calves (1657-1668 months)	1,000	1,000	1,000	1,000	1,000
Calves (1669-1680 months)	1,000	1,000	1,000	1,000	1,000
Calves (1681-1692 months)	1,0				

strategically important, the territory could have been targeted: the potential destruction of the industrial/port area of Belfast and possibly Londonderry would have been intended to disintegrate the two major urban centers of Northern Ireland. Its agricultural potential (like Wales's) was essentially limited to livestock farming. The main problem at the time was the conflict between the IRA, loyalists, and the British authorities ("The Troubles"). The film, too, remains silent on this region.

The destruction of the two main urban centers and the weakness of the agricultural system undoubtedly created a logical migration movement towards the Republic of Ireland in the south. As for the aftermath of the Northern Irish conflict, this seems highly uncertain. The country was extremely militarized, and numerous weapons were in circulation. Divisions within the population and with the authorities were virtually insurmountable at that time. The capacity for collective reconstruction therefore appears more compromised than in other parts of the country, and a scenario of migration/absorption by the Republic of Ireland seems the most logical.

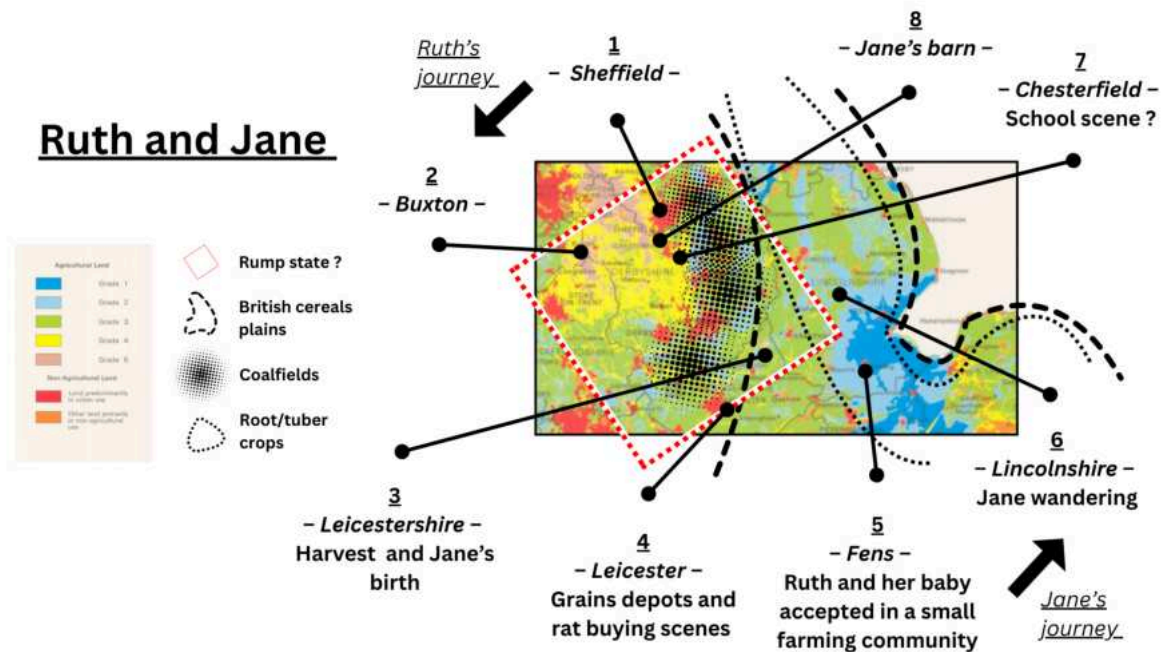
### ***Jane and the "fragmentary state"***

Jane likely left her mother's small farming community to settle in the nearby town or colony where the "fragmentary state" is located. Several possibilities could explain this. First, Ruth's acceptance, along with her baby, into a small community during a difficult time might be linked to a promise made by the community's founders: "As long as your baby is young, you can stay here if you agree to work with us." Months and years later, the promise became permanent.

When Ruth died, and because Jane was likely considered old enough given society's view of children—in the context of pre-industrial agrarian societies—there was no question of "protecting" her with a typically Anglo-Saxon system of indentured servitude (like the one implemented after the Salem witch trials to place the orphaned children of executed individuals with families and guarantee them shelter, work, and food; far from perfect, but it prevented children from becoming homeless and destitute). The country had no orphanages at that time, making a community-based mechanism—however imperfect—for their care logical. Such a mechanism would have involved assigning a home in exchange for community compensation. Secondly, she could have decided to leave the community herself in search of new opportunities, due to the loss of ties with her mother's farming community. A forced expulsion is unlikely, given the need for these small communities to have an abundant workforce, and the welcome Ruth and her baby received—essential for their survival after the events of March-May 1985—completely contradicts this scenario.

What path might Jane have taken? We need to go back to her mother Ruth's departure after the attack. The path we propose respects both the starting and ending points: Sheffield and Jane's barn near Chesterfield. However, we impose a rural realism on the film: namely, the Buxton area cannot be the location of the 1984 harvest scene, nor the location of the grain theft, nor the place where Ruth and her baby could have survived. This path incorporates, given Ruth's obvious vulnerability at that time in March-May 1985, the necessary shelter she found in a small farming community in the East of England. Then there is the path of her daughter, who in a way follows in her mother's footsteps, and also moves closer to the new heart of activity and opportunity in her world.

## Ruth and Jane



So, first, we find the following for Ruth:

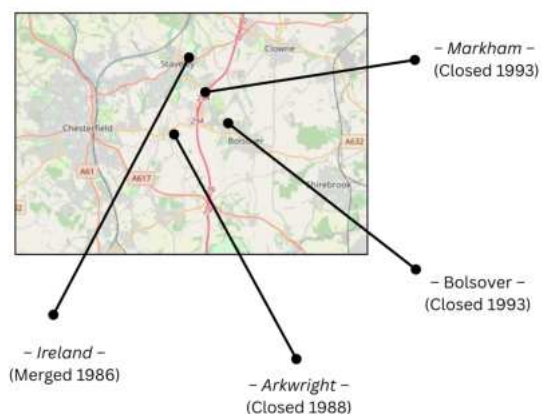
1. Sheffield as a starting point
2. Buxton after setting off on the road with the other refugees
3. A logical movement in Leicestershire near the agricultural plains of the United Kingdom in September-December 1984
4. The possible grain theft and his attempt to buy rats to feed his daughter in Leicester
5. Migration to the East is a possible outcome in the agricultural region of Fens.

Then for Jane:

1. His possible departure for the West after his mother's death leads him to cross Lincolnshire
2. His possible arrival in the town of Chesterfield, near the coal mines, a possible location for the scene with the school
3. His barn is located on the border between Peak District National Park (Buxton area) and the agricultural plains to the east.

She likely began living between this "fragmentary state" and the nearby countryside, in that famous barn where she is seen cooking a rabbit and where she is unfortunately assaulted by another boy. The Chesterfield area is interesting because of its numerous coal mines, although its distance from the farmland to the east perhaps makes it less attractive than cities further south. Many coal mines

### Collieries in 1983 (Chesterfield region)



Sources:  
 • Collieries: <https://hmsr.org.uk/mines-map/coal-mining-in-the-british-isles/derbynotts/chesterfield/>  
 • Map: OpenStreetMap

were still operating in the 1980s, most of them located on the outskirts of the city and close to the surrounding small towns. However, there are no coal-fired power stations nearby. These are more commonly found in the Sheffield, Leeds, or Birmingham areas.

Even if the authorities of the "fragmentary state" were guided by good principles when they launched their "educational" program with a television (which was probably an "event" for the children and even for those accustomed to violence, disease, crop failures, and daily survival; for whom education has no value), it wasn't "free." It was probably designed as a "reward" to also instill in the children a sense of duty; especially in a world where many things are scarce and fragile. What do we see in the film? They have their lesson in English, then they are asked to work on small, simple tasks: taking old clothes and untangling them to recover thread. A small meal was probably provided for the children. This scene is also important for a particular reason: the effort required to make it happen demonstrates a willingness to invest in future generations, a contradiction to the idea that children would be perceived as less capable or competent.



A small loaf of bread appears at the end of the film, during the robbery scene organized by Jane and two other boys. This illustrates the return of a more significant grain-growing culture, a logical consequence of a society capable of generating food surpluses.

The "work-for-food" model was still at the heart of the collapse in the year following the attack, but it has nothing to do with forcing people to work in horrific conditions, where there are no rewards, only punishments and brutality, as in 1984-1985. The mere existence of the "educational" program suggests better conditions and stable food production. If the "fragmentary state" were prepared to exploit children with a forced labor program, there would be no television or entertainment.

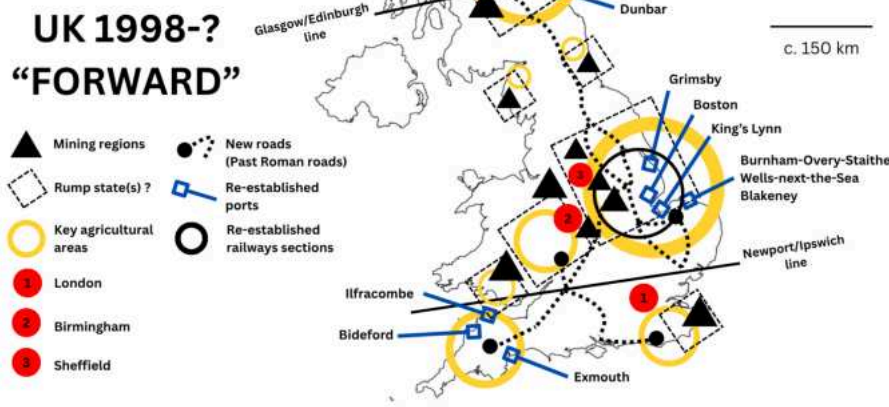
But even if society seems to care more for children, the brutal law of the new world applies to them as well: food abundance is relative, and there is no room for stealing. Hence the scene where the young boy is shot dead in the street. As I said earlier, the "fragmentary state" and small farming communities are neither a dystopia nor a utopia. They correspond to and align with



what is possible in what remains of a devastated country where people struggle even as things slowly improve. When you consider that after the implementation of the Transportation Act in 1717 in the United Kingdom, many vulnerable people (especially homeless children) were made eligible for penal transportation to North America or Australia, sometimes simply for stealing a few spoons and a horse; And most importantly, the death penalty for minors under the age of 16 was only abolished in 1908 in the United Kingdom; one can understand how far post-nuclear war society has regressed.

## United Kingdom 1998-?

In conclusion, the only logical path forward is to move forward. Given the journey the survivors have had to undertake since the end of the first year after the attack, and given the prerequisites for the elements visible on screen a decade later, the country can only rebuild on a broader scale.



The project isn't necessarily groundbreaking, but rather a logical continuation of previous developments. We should therefore expect to see the

development of roads across the country to reconnect distant agricultural regions. These roads would follow the routes of Roman roads. We should also see the redevelopment of limited port activity focused on external trade—but also for trade on the East Coast of the United Kingdom—taking into account the destruction of numerous industrial ports. The idea would be to develop connections from smaller ports, potentially spared during the nuclear attack. Finally, there could be a very limited redevelopment of old railway lines, primarily in the East of England, linked to the coal mines.

### *A testament from the founders of the fragmentary state*

*1998 - In the middle of what was once East or Central England*

*Like everyone else, we experienced 1984 (the year some survivors dubbed "the year of the fireballs"), the injustice of the ensuing "food-for-work" program that we implemented willingly or unwillingly, despite the obvious moral problems, the efforts in the East of England, and the catastrophic crisis a year after the attack. It would be dishonest to say that we acted out of generosity or compassion. We were in the same situation as the other survivors. So we did it first and foremost for ourselves (we had to eat and survive), and indirectly for others. Perhaps our only "good deed" was coordinating the efforts needed to safeguard these key agricultural regions after the attack, saving what could be saved of the 1984 harvest, seeds, livestock, and tools; And perhaps, for many people, we were the only valid authority figure, allowing them to organize what needed to be organized in 1985 for the upcoming harvests. A*



*massive collective effort was required to ensure everyone worked and received instructions to produce food and allow us to get through this difficult period in March-May 1985. Despite our mistakes and errors during 1984-1985, we were in direct contact with others throughout that time. We had to carry out absurd orders, but we faced the same material hardships as everyone else. We also had to work in the fields like everyone else during that long decade and relearn how to walk. We are well aware of what many survivors think of us: the remnants of a fallen authority and state, with which we must nevertheless work. Food and agricultural stability, a school, a hospital or even street lighting in certain places will not change our mistakes and errors of the year 1984-1985.*

### ***Another alternative scenario: the continuity of the United Kingdom***

Even if this scenario does not align well with what the film suggests 10-12 months after the attack and a decade later (famine, military violence, large-scale poorly coordinated agriculture, a very fragmented society a decade later...), the idea of a continuity of the United Kingdom as a united entity until the end of the film – or progressive re-unification – is an interesting idea in several respects:

- It makes it easier to ensure the transition of the March-May 1985 period into the film's universe, and therefore to guarantee a greater number of survivors a decade later.
- It also offers opportunities for more coordinated and sustained reconstruction throughout the decade not explored by the film; as well as the pooling of resources enabling an easier industrial restart a decade later

However, this solution – if we wish to respect the images and information of the film – raises the question of what would have become of the “work-for-food” program, which, as presented in the film, is in no way sustainable in the long term. Unless, of course, we admit that the project was flawed in its formulation, as presented by Duncan Campbell in his book *War Plan UK* (1982). For example, on page 127: *At the same time, the planners did not lose sight of their fundamental values. In the most remarkable of the circulars addressed to local authorities, Briefing Material Journal Wartime Controllers (53/76), the Home Office set out its views on the post-nuclear economy:*

*Collapse of the monetary economy:*

*A large-scale nuclear attack against this country would completely disrupt the banking system upon which the entire monetary economy rests. Even a small-scale attack on London and the sites of the main facilities of the major clearing banks would have a similar effect... Money, in its current form, would become meaningless. The circular proposed that bartering and, for the government, the exchange of food or clothing, should fairly quickly replace the use of money “as an element of the economy,” a means of purchasing goods or rewarding services.*

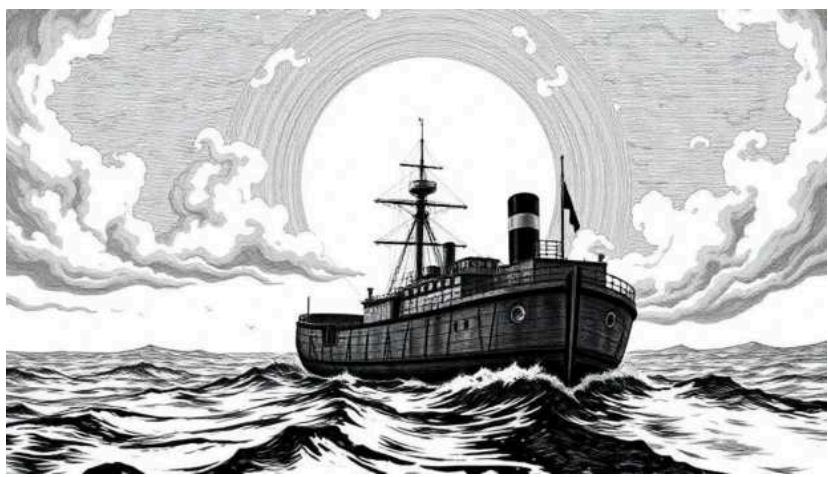
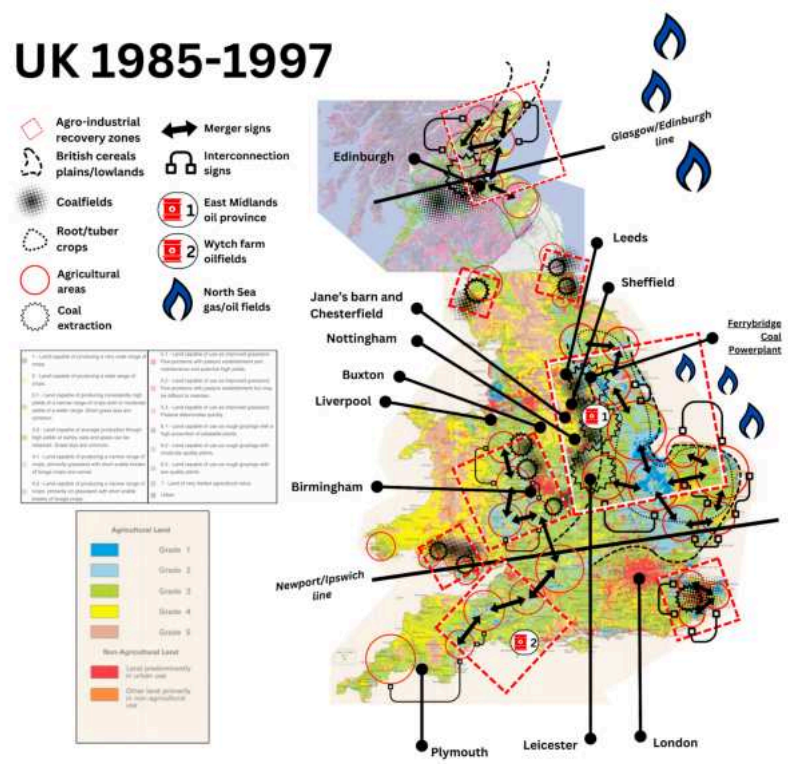
*He then pointed out that:*

*The re-establishment of a new monetary system as quickly as possible would be an essential element of the national recovery policy. This could take a year or more, depending on the extent of the attack, and it cannot be assumed that the old currency will be bought back, except perhaps at the cost of a considerable devaluation of its former purchasing power (emphasis added).*

The circular also explains that regional commissioners will receive assistance from "financial advisors from the Treasury and the private sector". A logically temporary and pragmatic project to reinstate bartering, completely unlike the program implemented by the authorities in the film. A more detailed, pragmatic, and nuanced plan than what the film presents. Here is a map illustrating this logic of state continuity in the United Kingdom. Objectively, there are few notable differences, but primarily changes in terminology:"

- The "fragmentary states" become mere hubs for industrial, agricultural, and coal-mining reconstruction.
- Agricultural areas continue their logic of integration/interconnection
- Southwest England is fully reintegrated into the national reconstruction effort, notably with the recommissioning of the Wytch Farm oil wells.
- The poles are also subject to interconnections with each other.

A more reasonable scenario, in a way, presupposes a greater disagreement with the images on screen, but can also be seen as following a logic of initial fragmentation followed by national/regional recomposition. Within the framework of the fictional universe, it opens the door to a more coherent reconstruction, including the rebuilding of a national agricultural system and the reactivation of critical infrastructure such as gas/oil extraction.



**And what about the others? Regarding foreign aid and contacts**

This second scenario, along with that of the United Kingdom's state continuity, is the furthest removed from the film's narrative. It logically complements the other possibilities ("fragmentary states",

abandonment of the East, state continuity, state mix-fragmentation-recomposition...), but is entirely negated by the film's imagery. However, it is also a reality: the United Kingdom would not have remained, objectively, completely cut off from the world; if only for the obvious reasons of geographical isolation. It was a major state on the regional and international stage. It is also an island. The question then arises: who could have helped the United Kingdom after the attack and in the years that followed? The aim here is to explore a few logical avenues without trying to "stretch" the film's universe beyond mere logic.

The United Kingdom is a founding member of the Commonwealth. If we exclude countries in the Northern Hemisphere, it would be logical for aid to have come from an African country (excluding South Africa, which was under embargo due to Apartheid), India, or Australia. Given Canada's proximity to the United States, it could have been targeted by nuclear strikes. Due to the climatic conditions of a potential nuclear winter, it would also be logical for Canada to have been heavily impacted. Australia and New Zealand could also have been targeted by strikes within the framework of their alliance with NATO. At this stage, we therefore have either an African country (Ghana, Nigeria, etc.), a Caribbean country (Jamaica, Trinidad, etc.), or an Asian country (India, Bangladesh, etc., but not Pakistan, which was no longer a member at the time); or even a coalition of Commonwealth states that could have provided medium- to long-term assistance to the United Kingdom. We can also consider the many British overseas territories that are potentially spared, but very remote, and do not necessarily have the logistical resources to do so.

The two likely theaters of military operations on May 26, 1984 were: Europe and the Middle East due to the invasion of Iran. Perhaps also the Pacific to a lesser extent.

Europe's fate seems tied to the Soviet nuclear attack of May 26th in the film. It seems unlikely that any continental European country could come to the aid of the United Kingdom, with the possible exception of France, which was not a full member of NATO (having left the integrated command in the 1960s and no longer hosting American bases). Ireland is also a potential candidate, but it would be more preoccupied with managing the post-nuclear situation in Northern Ireland and the immediate consequences of nuclear winter on its own agricultural system. The Middle East would also have been heavily impacted due to the numerous American and oil interests in the region.

In the context of international aid, the question arises of potential payment, and above all, with which authority to negotiate? The film depicts a country a decade later without any form of centralized governance. This scenario implies accepting at least the existence of regional authorities (the "fragmentary state(s)") or state continuity (even after initial fragmentation). The question remains: what could the United Kingdom have exchanged?

- The Bank of England's gold? Even the book *War Plan UK* (1982) is silent on the subject, although safeguarding it would have been logical; there was a little over 300 tonnes in 1983.
- North Sea oil and gas? The problem of infrastructure remains, and again, the question of which authorities to negotiate ownership with.

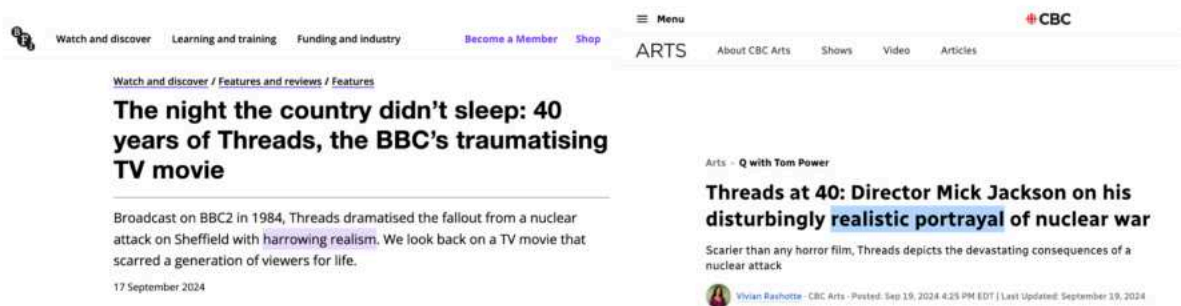
Such a scenario would ultimately imply a logic of solidarity like that which we have simply known after many historical catastrophes: Red Cross parcels in war zones or camps, reception of refugees by countries neighboring war zones, regional solidarity... perhaps even between survivors of former enemy states.

The scenario extends far beyond the film's scope, ultimately implying the existence of solidarities that are entirely denied by the film, even within its strictly geographical boundaries. Yet, this solidarity is a necessity, even within what remains of England.

---

## ***Timeline of the year following the nuclear attack and possible events during the "lost decade"***

*Having discussed in detail the two crucial periods of the narrative, we now need to be able to reconstruct a plausible trajectory, accepting that the film may be wrong.*

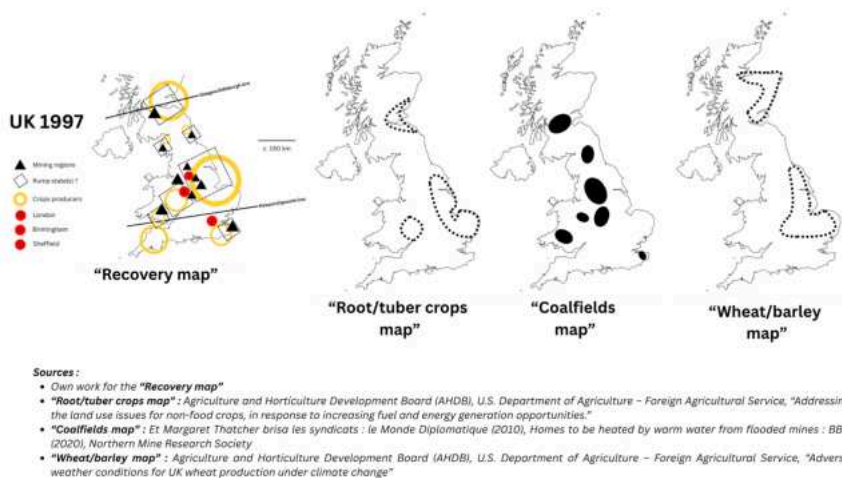


As you've seen, and unfortunately for the film *Threads*, its narrative invites careful and detailed examination. Indeed, the film provides no agricultural/societal/governmental/logistical elements to connect its scenes. *Threads* is not *Mad Max* or *Alien*. Those were obviously science fiction films. But still...*British Film Institute* Described as a "heartbreakingly realistic" film, and yet everyone celebrates its scientific realism, we are right to evaluate its plausibility and realism. It is even our duty when a film wields such influence. But the film fails too many "stress tests" to be considered realistic. The two preceding publications have already piqued the reader's curiosity regarding the need to develop such important explanatory mechanisms. A few examples:

- The film estimates that the nuclear attack and its aftermath caused nearly 38 million deaths four months after the attack. With an estimate of 20 million deaths directly resulting from the attack, this means that within four months, 18 million people died from the effects of the fallout, violence, radiation sickness, exhaustion, famine... all during the pre-harvest exodus crisis; while also specifying earlier that the number of unburied plots across the country is between 10 and 20 million.
- The screen depicts terminal famine 10 to 12 months after the attack, but estimates that the population curve will reach its minimum up to 8 years later; despite massive losses during the first year.
- He never conceptualized the systems involved in his entire narrative: from regional/national coordination during the collapse the year after the attack to the agricultural reconstruction necessary for his own final scenes.
- He is convinced that a society experiencing endless regression on all fronts (agricultural, demographic, intellectual, social, etc.) after a serious societal crisis can maintain an education system (even a precarious one), coal mining, and public lighting a decade later; when the normal curve to reach its own end is a "collapse then recovery" curve.

- It ignores its own constraints embedded in its own narrative, from the consequences of the "work-for-food" program to the agricultural change due to the collapse of mechanization, and also denies the physical constraints of its own country (coal and fields are in the East, a definitive reality of the British Isles; the worst nightmare for the film's regression narrative, because all of a sudden, everything is inevitable).
- Is disconnected from his own world and does not understand the total disconnect between constantly shouting "DEATH! UV RAYS! FAMINE! SAVAGES, DEAD UTERUS AND USELESS JANE! RADIATION! CANCER!" and all his own visual cues that destroy his own narrative (light, obviously cultivated food, coal, order, Jane coordinating with others, understanding instructions – obvious for the clothing recycling scene – and demonstrating dexterity...)

That's why, unfortunately for Threads, the only serious diagnosis is "*cinematic and scientific delusional psychosis*"» : [A film] *living in his own delusional reality and probably barely understanding his own delusional world. The "why"—one must not indulge in his hypotheses.* The mere fact that such essays, maps, and timelines are necessary to connect the dots is itself a testament to the entire problem with the film Threads. A realistic film doesn't need so much explanation if its system is coherent and explicit. Which is not the case with this film. The narrative that is unfortunately being imposed on Threads in this analysis (and against its will) is as follows: a collapse unrelated to the atomic bombings, but solely linked to a poor political choice, followed by a long, decade-long reconstruction of the agricultural system. A prerequisite denied to the very end by the film in its psychosis, but essential for it to claim the title of a realistic film. But let's return to the main subject.



I reiterate that the following map is important for understanding what probably happened during the collapse the year after the attack and during the "lost decade", especially the essential elements needed for the final scenes of the film (former agricultural region, root/tuber and cereal crops, coal and

pre-war towns):

The map on the far left shows several possible locations for the film's final scenes. The three maps on the right (in the order of tubers/roots, coal, and wheat) illustrate the importance of East Anglia as an agricultural and coal-producing region.

But within the context of Thread's alternate agricultural universe, the joke isn't about perfect plausibility, but rather the idea that, for filmmakers, the most suitable farmland is located in pastoral landscapes known for their poor soil fertility, harsh climate, steep terrain, and rocky terrain. Whether or not the East of England is perfectly suited to "hoe farming" is another matter, and one that wasn't my primary concern. The idea was to understand the most logical agricultural models. Nevertheless, the composition of the UK's soils remains undeniable:

- The arable land forms an area extending from the center of England, above London, to Aberdeen in Scotland, along the coast.
- Coal basins naturally lie alongside these arable lands across a large part of England.
- Arable land and coal basins are the most fundamental condition for the final scenes of the film to be plausible.
- Either they were exploited, or they weren't.

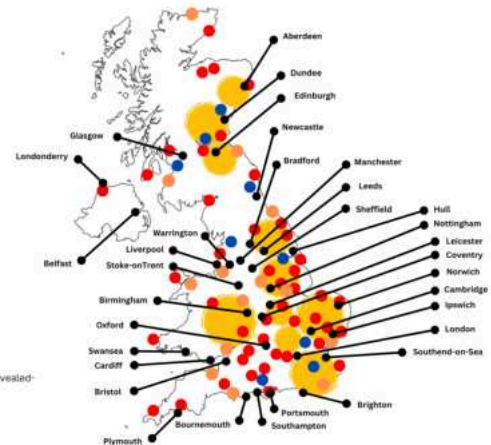
As a reminder, here is a simplified representation of the possible bombings across the UK in Threads on May 26th (with civilian, military, and agricultural targets potentially affected; something that was never discussed or shown in the film itself, even though this point is crucial). The dotted squares represent major urban centers destroyed, the red dots represent military targets, and the two yellow circles represent major agricultural areas in the UK.

### UK MAY 26TH "STRIKES"

- Key urban areas destroyed (airburst)
- Key military targets areas (groundburst)
- Oil refineries areas
- Key power plants (nuclear or conventional)
- Key agricultural areas impacted

c. 150 km

- Sources:
- Military bases: <https://www.robedwards.com/2014/06/revealed-the-106-cold-war-nuclear-targets-across-the-uk.html>
  - Powerplants: Wikipedia, powerstations.uk
  - Agriculture: Wikipedia, DEFRA, AHDB



The following chronology is therefore based on the events analyzed in the two previous sections: the collapse in the year following the nuclear attack and the almost inevitable events that occurred during the "lost decade." I have taken some liberties with the film (especially regarding the duration of certain events in the first year), but the overall chronology is respected. It naturally adheres to the film's scenes. I have also added several images from the film to illustrate both the first year as depicted and the final scenes set a decade later.

### ***The first year after the nuclear attack***

*Ironically, the parts of the film that might have been relatively "safe" from criticism ultimately aren't. By presenting the "work-for-food" program, the film inadvertently provides the mechanism for the societal collapse depicted 10 to 12 months after the attack. This mechanism is so crucial and unexpected that it inevitably shifts the debate from nuclear bombs to political choices. The only question that could arise is whether, for the filmmakers, what they present as a cynical system of control isn't actually a distorted view of how a food rationing system works. If so, it means their understanding of food rationing is particularly weak. The fact that some people are given more food has nothing to do with an assessment of their intrinsic value relative to their productivity when the system is fair. A coal miner simply needs to eat more than someone who stays home. Everyone is entitled to something. The system is cooperative. Honestly: aside from concentration camps and certain totalitarian states, the concept introduced so disturbingly by the narrator cannot be compared to any normal rationing system. As a reminder:*

*Money has lost all meaning since the attack. The only viable currency is food, given as a reward for work or withheld as punishment. In the bleak economic situation that followed,*

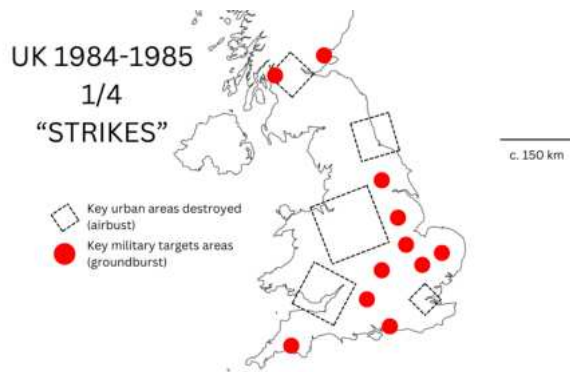
two harsh realities stand out. A survivor who can work receives more food than one who cannot, and the more deaths there are, the more food remains for the others...

This is reinforced by scenes in the film during the 1984 harvest: Ruth forced to work while pregnant and abandoned, people dying or collapsing from exhaustion without assistance... This concept is so counterproductive given the film's context, where cooperation is paramount, that the only way to "rationalize" it is to explain that the authorities were incapable of constructing a new collective narrative, were prepared to maximize control over cooperation, and were willing to cling to the systems of the past at all costs (such as the emphasis on agricultural mechanization). A complete shift in the film's message, to the detriment of the film itself: from nuclear devastation to a major political and institutional failure.

The film itself completely reverses the message: the initial catastrophe (the atomic bombing) becomes peripheral, human choices return to the forefront, and ultimately political choices take over to explain the subsequent events on screen.

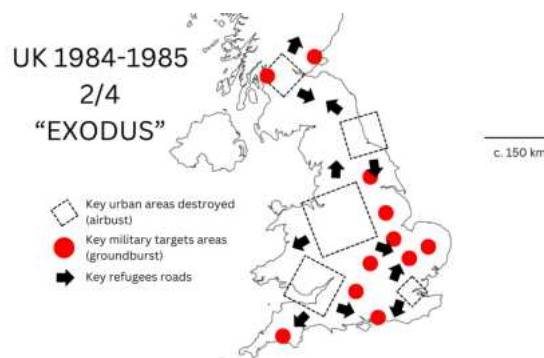
From May 26, 1984 to June 9, 1984:

- Curfew in the UK due to nuclear fallout
- Fuel stocks are already at a critical level given the scale of the destruction (EMPs, radiation, destruction of oil refineries, etc.)
- Little action has been taken apart from the fact that the military and civil servants are taking up positions across the country to secure warehouses, food and fuel depots.



From June 10, 1984 to September 22, 1984:

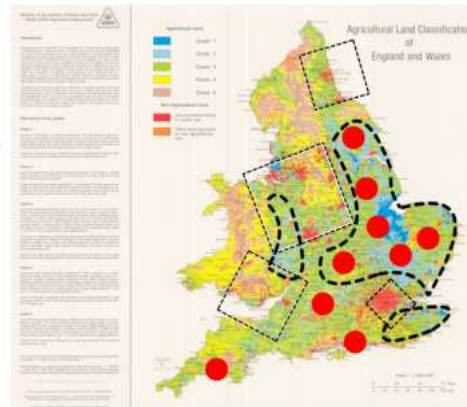
- The reconstruction of the cities has begun
- Implementation of the "work-for-food" program
- The decision was probably made to enforce political choices and orders through intermediaries (few central representatives on the ground).
- Exodus crisis
- The first likely signs of an impending national collapse are emerging, with small towns and villages unable to manage the refugee crisis: lack of housing, food, medicine, infrastructure...
- Probably the first signs of disagreement at the highest level on how to manage the crisis (Buxton refugee assistance system organized by local authorities vs. military plane asking people to turn back)
- Second leading cause of death after the nuclear attack



- Lack of food/medicine/water, no shelter/food for people not following government directives, radiation sickness, third/fourth degree burns during the attack, widespread illness, violence, military coercion...
- Clear signs that the policy being implemented is not sustainable: desertion of cities (vote of censure from the population), increasing arbitration regarding fuel allocation...
- Pre-harvest efforts across the country (minimal in some areas due to the exodus crisis and fuel shortages, but more significant in key agricultural regions)
- This is probably the moment when military/civil servants/agricultural experts moved to critical agricultural areas (particularly the east – the “breadbasket” of the UK – and southern England and Scotland)

UK 1984-1985  
3/4  
“PRE-HARVEST”

- Key urban areas destroyed (airburst)
- Key military targets areas (groundburst)
- Key agricultural areas



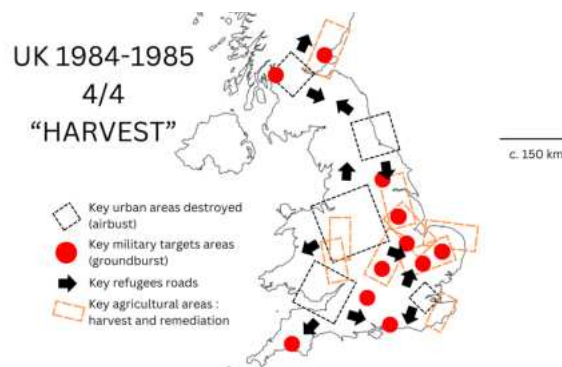
to assess crop viability, coordinate soil decontamination and cleanup efforts, plan seed planting...

From September 23, 1984 to December 22, 1984:

- Due to the exodus crisis and fuel rationing, the harvest was delayed and lasted longer than usual.
- Few vehicles, untrained

survivors, lack of tools, hoarding, violence...

- Noting that it was also necessary to prepare the fields for the next harvest
- Tensions have likely escalated between the authorities given the logistical burden of organizing a mechanized harvest with severe fuel rationing.
- The possible period when some military/civil servants/agricultural experts in the field may have reached the conclusion that the sustainability of the system was seriously compromised in the long term (pre-separation of central authorities?)
- The possible period during which initial efforts were made at the local level to implement specific policies while keeping central authorities and/or RSGs unaware



From December 23, 1984 to March 28, 1985:

- The country was "dormant" during the first post-nuclear war winter
- Many displaced people in the countryside have found themselves facing a lack of shelter, food, heating, medicine...
- Third leading cause of death after the attack and the exodus crisis
- Several regions of the country are seriously isolated from the control of the central authorities (Wales, Scotland, etc.)
- Military personnel/civil servants/agricultural experts in the field are increasingly responsible for implementing policies themselves due to their physical isolation.

- In mid-February 1985, the first localized events leading to the major crisis of March-May 1985 occurred: local authorities were probably tasked with implementing a new reduced ration for "workers" in view of the decrease in harvests and the few remaining food stocks.

Self-reinforcing "collapse loop" framework:

1. Decreased food stocks and poor harvest
2. Reduced rations
3. Disobedience/desertion given the contractual (and non-cooperative) nature of the "work-for-food" program
4. Lack of workers for coordinated efforts under the leadership of the central government
5. The emergence of county/regional level efforts, without the agreement and oversight of central authorities.
6. Crucial tasks for the central government are not being completed, and crucial resources are being diverted to the benefit of alternative actors.
7. The harvest is poorly managed, distributed or stolen/hoarded in some regions of the country (especially the most vulnerable)
8. The gradual collapse of the national food distribution system (the "work-for-food" program) was logically replaced by alternative rationing, and above all, emergency food aid.
9. The authorities (military and civil servants) on the ground are also impacted, logically leading to their taking control of the preserved/rehabilitated agricultural/industrial zones from the first year onwards.
10. Central authorities are "passing the buck," resulting in poor communication and inertia among institutional actors.
11. Disruption of communications and transport (lack of fuel, workers, orders, etc.)
12. The gradual shift from purely centralized efforts to decentralized efforts within the framework of new decisions by local authorities (seed harvesting and conservation, food aid systems, coordinated efforts for planting/harvesting, etc.)

From March 29, 1985 to May 26, 1985:

- Breaking point identified for centralized governance in Threads
- The decrease in harvests compared to 1984 makes the "work-for-food" program unsustainable
- Terminal famine depicted on screen (buying rats, Ruth stealing grain, eating grass/acorns...)
- Latest major demographic collapse
- Inaction of central authorities and rejection of responsibilities at all levels
- Gradual disintegration of centralized governance
- Emergence of all the localized efforts (famine relief, planting, seed conservation, etc.) necessary for the successful harvest of June 1985
- Replacing the central state with hubs run by civil servants/military personnel/agricultural experts in contact with the local population

### ***The "lost decade"***

*I believe a 15-year time span leading up to the final scenes would have been more realistic, especially for the signs of the large electrical grid required in pre-war urban cities to have*

*street lighting, something of the past probably much less essential a decade later for the survivors, whoever they may be.*

*At this point in the film, they have been producing (if we are logical given the infrastructure shown on screen) a comfortable amount of food for several years, having rebuilt a complete agricultural system. They have probably developed new goals, new habits, and also rebuilt significant infrastructure in rural areas (whether villages or very small pre-war towns).*

*While coal extraction or recovery can be natural and logical (heat, light, cooking food...), the idea of reviving public lighting in old cities far removed from their new residential areas seems strange to me; except perhaps for the desire of the "fragmentary state" to restart old critical infrastructure, but probably on a much smaller scale (like an old school/university with a television for children, a small clinic...) than what the film suggests*

*As I wrote: "For the people we studied, daily food is probably this kind of loop: bread, potatoes, turnips, cabbage, potatoes, carrots, soup, potatoes, beets, beans, apples, peas, bread, meat, potatoes, turnips, swedes, pumpkins... not something very fun or recreational. No pizza, sushi, bananas, Italian pasta, or avocados... But that's not what matters. What matters is that we are able to feed ourselves and others properly with what we can have and produce. And once we are confident enough in our ability to produce collectively again, we can gradually and slowly move on to other, non-food-related topics: a school, a clinic, the processing of textiles, mining coal for a steam engine..."*

*From a philosophical point of view, and to complete the narrative arc: does the film make the same (and never articulated) mistake that the British government and the RSGs made in the film? Focusing on restoring old systems when new ones (in our case, the required agricultural system) are thriving, because they align with known models?*

*The film clearly depicts food distribution in complete disarray and signs of famine (Ruth stealing grain to feed her baby, soldiers shooting at people, Ruth buying rats in the street...) in months 10 and 12, and obvious signs of recovery a decade later. A rebound in agricultural production wasn't even probable; it was mandatory for the people on screen..*

*The real miracle the film could have imagined? You don't even need to restart the electrical grid, dig out a VHS tape and a television to teach children. This was done without any of that by the infant school movement in 19th-century Britain. Just someone with knowledge, teaching children the basics of English. This can be done anywhere, from a room in an old town hall to a barn. Even with some kind of vocational training for children. Proof that the film is completely trapped by its inability to conceive of progress, human dignity, and resilience beyond an old cassette tape and a cathode-ray tube television.*

*To put it bluntly: you can't have coal mining or an educational program when people barely eat, struggle to produce food, and don't coordinate with each other. Thinking otherwise is dogma. The "psychosis" in which the film is trapped. No one here is pushing the narrative: we're just trying to reconstruct (as in biblical studies) the story to its final, logical conclusion with the few fragments left by the original scriptures.*

- *From year 1: the country is in complete disarray with famine, collapse of governance and complete demechanization (the famous last scene before the time jump with these survivors forming a "line of hoes")*

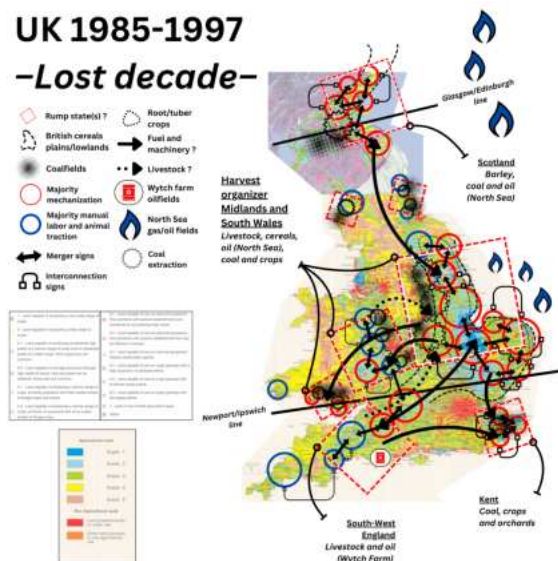
- *A decade later, and so on: people are obviously working in an organized and coordinated manner, stable food production is evident given the existence of the educational program, electricity has returned even if it is limited, there is street lighting, coal is being mined, a steam tractor is shown, and even a hospital*

*The complete opposite of a country being in a state of terminal decline.*

*It would have been wiser to show fertile fields and simple farming communities. A life in the fields, simple and humble. A classroom with a blackboard and chalk. A local council overseen by former civil servants and military personnel. The maintenance of a minimal and logical coal mine. Perhaps the North Sea too, if one believes this should have taken place in the East of England..*

*Unfortunately, they'll have to cultivate the inhospitable and infertile land around Buxton. They'll have to figure out how a television can function without ever seeing its power source. And they'll have to bring the lights back on in deserted cities like Sheffield, perhaps Birmingham, or even Liverpool. A logistical challenge the filmmakers unfortunately overlooked..*

*But we must respect the filmmakers' choices. We must therefore find a realistic path between the agricultural necessities and the urban scenes at the end of the film. Something that logically had to begin in the East and then move West, from the fields to the coal mines and the abandoned pre-war towns. Here is the map:*



Very important for what follows, we need to talk about the typical British agricultural calendar. Here it is month by month in a simplified form:

- December-January: the earth is generally at rest
- February: preparation of seedlings for a number of products (peas and beans in particular), start-up of greenhouses and polytunnels, sowing of many vegetables (onion, leeks, cabbage...)
- March: planting of "early potatoes", so-called "summer" barley, as well as sowing carrots, sugar beets, parsnips, beets...
- April: transplanting of certain seedlings, planting of maincrop potatoes, work to fertilize crops in the fields, season for planting spring barley and also beets, for example
- May: Transplanting of the last seedlings
- June: harvest begins for "winter" barley, as well as the harvest of "early potatoes", salads, and certain fruits; continuous sowing of many products such as salads or beets
- July: pest control in the fields, harvesting of many vegetables, start of the wheat and spring barley harvest season
- August: peak harvest for wheat and barley, major harvest period for potatoes, onions, carrots and other vegetables, start of work to plant cereals for the following year
- September: season for planting so-called "winter" barley, harvest of apples and pears

- October-November: sugar beet harvest, cultivation of "winter" wheat, wheat sowing period

From May 26, 1985 to December 30, 1985:

- Necessary mechanized harvesting in the UK's grain-producing regions, possibly without the support of the British government/RSG and in the context of the film's famine scenes
- The vestiges of centralized governance are collapsing completely.
- Transition to labor-intensive agricultural methods where suitable crops are found and in peripheral regions (a key advantage for pre-war regions with high root/tuber/vegetable production)
- Natural emergence of institutional successors to the central state (the “fragmentary states”): East of England, North of Newport, Scotland — near Edinburgh — and South of England: logically autonomous in terms of daily affairs, interdependent for crops/energy/food
- Maximum scope of actions by soldiers in distress on a large scale (lack of fuel, ammunition, food, weapons...)

1986-1988 :

- Mechanization is maintained in cereal-growing regions, but there is a strong emphasis on manual methods elsewhere (“hoe-farming”, animal traction, etc.).
- Possible period for population stabilization (the film indicates that stabilization occurred between 3 and 8 years after the attack, which is too long for the stabilization required leading to the final scenes; my estimate is closer to one year after the attack, the realistic compromise is between 1 and 3 years)
- Beginning of interconnections/mergers between communities in key agricultural regions of the “fragmentary states”
- First major signs of stabilization in agricultural communities, whether independent or led by former military/civil servants (“crop substitution”, better implementation of manual labor techniques, coordination, storage, processing...)

1989-1991 :

- Small, gradual agricultural/technical improvements in the agricultural world allow for progressively improved yields in all prosperous agricultural regions.
- Food production has stabilized with an initial improved surplus
- Consolidation of new agricultural specializations: mechanization in the East (cereals) and manual labor in the West
- Consolidation and improvement of exchanges between the “fragmentary states” (possible reconstitution of national unity?): collective projects, coal, gasoline, possible transregional “power grid”...

*...and now there are the final scenes of the film...*

1992-1994 :

- Small, incremental agricultural/technical improvements are still underway in key agricultural regions
- Improved agricultural surplus across all “fragmentary states”

- For the first time, coal is being extracted again on a possibly inter-regional or national scale in the United Kingdom (8 years after the attack)
- The educational program described in the film began 10 years after the attack (local initiative or national project).



1995-1997 :

- Small, gradual agricultural/technical improvements are still underway, allowing for even greater surpluses.
- Resumption of coal mining on a larger scale (11 years after the attack)
- Hospital scene
- Possible return to much greater mechanization in the fields to improve productivity and cereal production



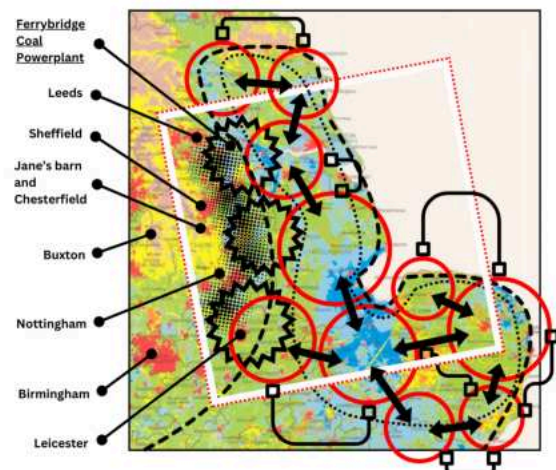
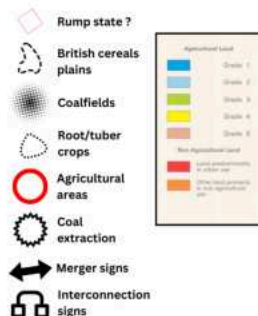
## Macro view of the reconstruction process

In conclusion, here is a map to show what this process might have looked like in the East of England:

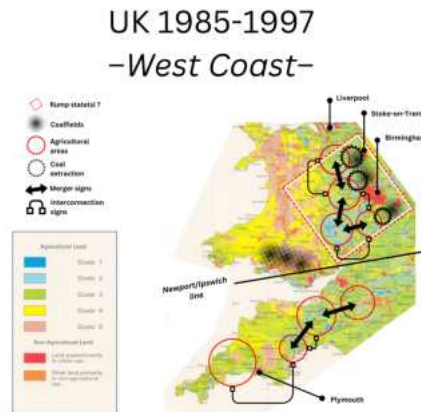
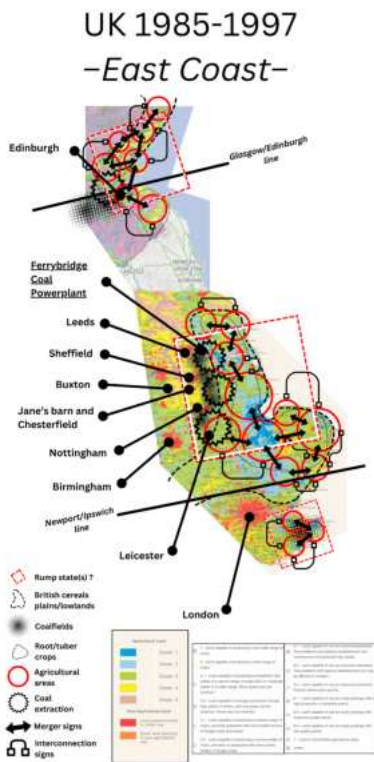
Here is also the logic implemented on the East

Coast of the United Kingdom, with this search for coherence necessary for the final scenes: coal close to arable and productive land. Here is also a possible vision of reconstruction in the West of England, exploiting two axes: Cornwall-Devon-Somerset and Hereford and Worcester-Shropshire-Cheshire. The main drawbacks are the lower quality of the soil, lower cereal production, poor vegetable/root/tuber crops, and a weak mining industry (completely

UK 1985-1997  
-East of England-  
"RECOVERY"



absent in the Southwest, not very viable in Wales due to the scarcity of arable land, and mainly concentrated around Birmingham and Liverpool).

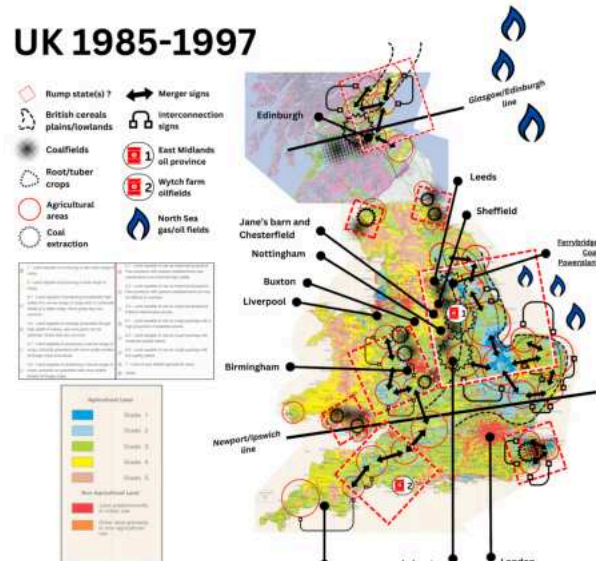


A broad overview can be compiled (excluding Northern Ireland), allowing us to identify several agricultural/coal-mining areas essential to the credibility of the film's final scenes. These include the Edinburgh region in Scotland, the East of England, the West Midlands, and Kent. Also included (though clearly

marginal) are the Cardiff-Swansea region (arable coastal land), Cambria (with some remaining mines near the coastal towns of Workington and Whitehaven), and Northumberland/Durham (the southern region near the last coal mines around Newcastle).

chronology refuses at all costs to articulate any societal, agricultural, logistical and human explanation; while maintaining at all costs its message of a world in a definitive terminal phase.

And with a touch of humor, the film's



## *A few words on the continuous evolution of the framework*

In the interest of transparency, the current version of the two essays you have read has not always been the same (and will undoubtedly evolve in the future). What has remained constant is the inevitable institutional collapse of March-May 1985, and the clear need for a collective and positive reconstruction during the decade not shown on screen. The main points of these developments could be summarized as follows:

1. A first published essay covering the first year with the major themes already present, but a more pronounced and unequal collapse (quite close to the film); a rather exploratory essay.
2. The second published essay on the lost decade, primarily exploring themes of resilience, the rump state (only one), and some discussions on agriculture and society; also an exploratory essay, disconnected from the first
3. Discussions on cereal production during the decade
4. The introduction of agriculture, initially with the "potato-cereal belt" in the East of England, necessitates revising both essays to ensure better integration between them from an agricultural perspective. The narrative shifts to the East, introducing "hoe-farming" and the concept of "pre-harvest" after the nuclear attack.
5. Introduction of alternative/complementary "rump states" in the East of England with a cross between coal and agriculture: East of Scotland (Edinburgh region), Kent, Hereford-Worcester, South Wales...
6. The concept of collapse was relaxed in March-May 1985, and local efforts were introduced under the leadership of former civil servants/military personnel in key agricultural regions to prevent famine and the collapse of the agricultural system.
7. Abandonment of the anarchic disintegration of the British military apparatus during the period March-May 1985 in favour of the "merger"
8. Inclusion of former civil servants in the "merger" process
9. Introduction of the "New English" and discussion of Jane's portrait
10. Introduction of the problem of soil contamination and possible remediation efforts, discussion of the case of Belarus, discussions on the concentration of institutional actors in these regions (which form the basis of the post-March-May 1985 crisis state model in both essays)
11. The introduction of agriculture necessitates a better development of the institutional link between the two trials: softening the collapse curve in the first year (from "crash" to transitory crisis), introduction of the "merger" (former institutional actors with survivors), introduction of several alternative "rump states".
12. Agriculture combined with demography also necessitates discussions on topics such as yields, tools, crops, the agricultural geography of the United Kingdom, the agricultural population...
13. It is therefore necessary to delve into the institutional themes at work from the first year, to mitigate the impact of the March-May 1985 period and to reorient the agricultural model from primitive subsistence to a pre-industrial and semi-mechanized agriculture.
14. The need for plowing (with fewer vehicles) and dietary diversity leads to the following topic: livestock conservation, even in reduced numbers
15. The need to abandon the idea of independent and isolated rural communities (as in the film) in favor of a more integrated model
16. Introduction to the discussions on Scotland and Northern Ireland
17. Expanding the analysis on the consequences of the "work-for-food" program
18. Introduction of the "collapse loop" to understand the impacts of the crisis between March and May 1985
19. The following factors necessitate discussion of an earlier, albeit extremely limited, energy recovery: restarting coal mining and oil production, however minimal, in the first year; and therefore a potential restart of electricity production in certain regions.
20. Identification of the "institutional cliff" for the summer 1985 harvest: obligation of mechanization

21. Integration of South West England as a “rump state” with the presence of oil at Wytch Farm
22. Focus on Ruth and Jane's journey, focus on possible locations for the film's final scenes (Chesterfield, Leeds...)
23. A shift from a logic of strong political/territorial fragmentation to a smoother transition, taking into account demographics and agricultural challenges, necessitates regional (national?) coordination by the end of the first year.
24. Discussion about textiles, clothing, bread...
25. Introduction of alternative scenarios: foreign aid, state continuity, abandonment of the East, focus on the Midlands
26. Abandonment of the concept of total fragmentation between March and May 1985 in favor of a process of political and institutional transformation
27. Introduction of nationwide crop maintenance organized around the key Midlands region
28. The timeline for the "lost decade" has been updated to reflect previous changes.

---

## Some deep thoughts on *Threads* (1984)

*What we need to say about *Threads*.*



We can debate for decades, even centuries, what is possible (or not) in a post-nuclear war world or after a catastrophe. Nevertheless, with careful examination, the entire narrative is inevitably transformed. Nothing was inevitable. Nothing was impossible either. But many things were necessary. Several realities matter from an agricultural and historical perspective.

### ***On collapse, human action, and political failure***

Firstly, societies do not disappear even after serious disruptions: they transform themselves through mergers, new organizations, communities, migrations, etc. This reality applies everywhere: the Soviet Union, the Roman Empire, Sumer...

After careful analysis, the collapse of governance in the film *Threads* had nothing to do with simple resource constraints, nuclear winter, or even atomic bombs; but solely with poor political choices: *Neither the film nor my previous essay answers the following question: what could have been the justification for the "work-for-food" program? Several answers are possible. The fact is that the true extent of the destruction was probably underestimated by the contingency plan. When the authorities discovered the scale of the situation in the days following the attack, their options were extremely limited, as implementing a traditional rationing system was difficult. A traditional rationing system would have required distributing ration cards/books to people before the attack. This was not done. Could it still have been organized in the circumstances? From my perspective, yes, even if it was difficult. The fact is that the implementation of the "work-for-food" program was probably decided not because of logistical or ideological constraints, but because the authorities (unfortunately, as in many historical cases during major upheavals) were more concerned with maintaining order and keeping people under control, and because they believed it was the best way to preserve pre-war economic, agricultural, and societal systems. The authorities were, in fact, reluctant to admit that the best solution was to adapt to the realities of the post-nuclear war era, not to force those realities into conformity with pre-war expectations. This was*

*impossible, as all past systems relied on dwindling resources (like gasoline) or destroyed infrastructure. The best example is the use of fuel to maintain highly mechanized agriculture, when the authorities should have been moving as quickly as possible toward more resilient and sustainable systems.»*

The "work-for-food" program is not an invention. The concept is introduced by the film itself at the beginning of the reconstruction. Narrator's voice:*Money has lost all meaning since the attack. The only viable currency is food, given as a reward for work or withheld as punishment. In the bleak economic situation that followed, two harsh realities stand out. A survivor who can work receives more food than one who cannot, and the more deaths there are, the more food remains for the survivors.*"The way everything is described is typical of the alternate reality of the film *Threads*: not calling a spade a spade, presenting it as inevitable, presenting this fact as if it had no consequence on the social contract, absolving the authorities, and never developing its implications during the collapse the year after the attack. The typical way the film operates: never exploring its own premises from beginning to end."

Especially when this information provides the "cement" for understanding the collapse of governance. In an equitable system, fewer resources could have been shared/updated (like food rations). In a transactional system where people are competitors, this is impossible. I used this formula in a previous work:*It was, of course, impossible to put food in stores for people to buy, but a "classic" rationing system might have been a better solution. Everyone receives food, even in very small quantities (especially the most vulnerable, such as newborns, children, and the elderly), and those who work can receive a supplement. The social contract could have survived, because with a rationing system, food is always a means of survival, not an end in itself. But with the imposition of forced labor, the social contract vanished. When something as fundamental as survival is tied to forced labor, we open the door to the unknown. The mechanism introduced by the narrator clearly resembles a coercive and transactional system. In such an environment, there is no room for cooperation, because the new economy consists of giving more food to the survivors when more people die. The "wealth" of the survivors is now tied to the deaths of their loved ones. Trust erodes and inevitably creates antagonism between people themselves and between people and the authorities. This system can function as long as the authorities are able to provide food or use violent means, but when food runs out, everything collapses.* While the harvests of 1984 could probably have fed everyone even if they had been reduced, it was the "new social contract" that could not be updated. And in a context of complete erosion of social cohesion and trust between citizens and authorities, the disappearance of all centralized governance was the only possible way out.

The best evidence of the very existence of the "work-for-food" program is the film itself. It shows on screen something that has nothing to do with ideology but rather the inevitable consequences of a system where people are interchangeable units of production. During the harvest between September and December 1984, as depicted in the film, people die in the fields (no one bothers to help them), working with their bare hands and some vehicles, under military guard. Ruth, who was pregnant, was forced to work in the fields and collapsed, abandoned by everyone, and gave birth alone. It is a testament to a system focused on simple survival strategies and productive objectives, where all the components of fundamental human solidarity and dignity have vanished. A system that receives the filmmakers' blessing and is presented as the only (and rational) choice in the face of adversity.

The following scene typically describes what is explained above (but not articulated in the film):*The scene in Threads begins with a telex indicating that it is 10 months after the attack. The scene opens with several close-ups of wheat stocks and a soldier inside a barn overseeing the harvest. Then you hear gunshots, Ruth and others fleeing with grain, you can hear a soldier from a helicopter ordering people to return and firing, and then you see Ruth crying and desperately trying to crush grain to feed her baby.*The situation has nothing to do with shortages (the food is there), but with the obvious collapse of the entire distribution/processing system due to the collapse of governance to keep the food distribution system afloat. Without this information, this scene and the collapse during the first year after the attack make no sense.

### ***On agricultural transformation***

Secondly, an agricultural system is necessary regardless of the tools available. The question is no longer what is most efficient, but what is available. An agricultural system or nothing. The hoe or famine. A subject never addressed by the film itself, even though it is a crucial point.

Hence the need to discuss the most suitable crops and where they are available (or not). Decades—even a century—of cereal cultivation designed for mechanized agriculture cannot be immediately adapted to manual labor. Conversely, root and tuber crops are the best way to obtain food quickly, in quantity, and through manual labor, while simultaneously cultivating other crops. All of this information means that the process can never be linear or universal, hence the geographical inequalities. Some regions are suited to these crops, others are not. All these points are addressed openly and frankly in all my books: agricultural geography, potential soil contamination, remediation efforts, and so on.

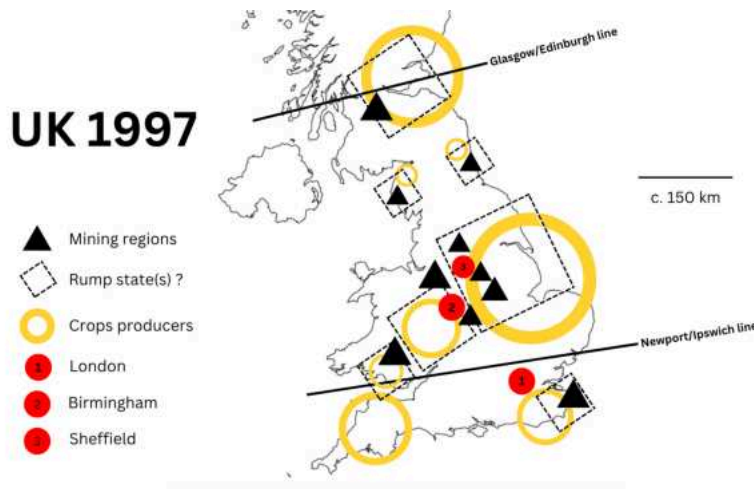
Last scene before the 10-year leap. Resilience and adaptation underway. The demands of the film's final scenes. People working together with simple tools to till the soil. The "hoe or famine" paradigm. Unfortunately for us and the people on screen, the scene seems to be set in the pastoral landscape of Peak District National Park. The worst possible location: the soil is infertile and rocky. It would have been much better for them (and for me) if such a scene had taken place further east. Oh well, things are moving forward 😊



In short:*Nevertheless, from a purely agricultural point of view, attempting to maintain monoculture cereal production over vast areas is not realistic without mechanization in such a context; everywhere the survivors lived in the United Kingdom.»*

In more detail:*The agricultural recovery likely occurred most strongly in root/tuber/legume/pulse production areas: these are relatively easy to grow, produce, and store, are high in calories and nutritionally sound, and represent the best choice for rapid food production (even with minimal effort, comfortable yields can be expected). The rebound in cereal production necessarily took time due to numerous challenges (reinstating animal traction, lack of vehicles, etc.). Cereals are certainly important, but producing high yields in a fragmented agricultural landscape with less mechanized farming is unlikely in the short term. Cereals require significant knowledge, coordination, labor, and processing, which are*

not guaranteed in our context. A more logical approach is to prioritize "profitable" crops (high yields with fewer tools) from the outset and gradually rebuild cereal yields.»



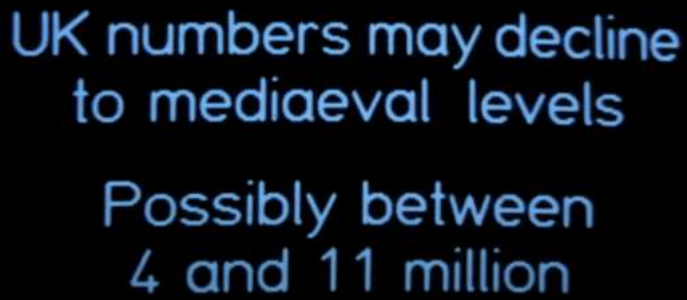
But by simply assessing the plausibility of the final scenes using agricultural and coal maps of the UK, we provided the necessary foundation for their existence: food and coal. Otherwise, the film is unrealistic, contrary to what the filmmakers claimed. But we also dismantled the famine/extinction narrative of the final

scenes. Everyone knows that even the smallest and most inefficient field of potatoes, turnips, and carrots can feed an entire family and even more for a year. And food is the basis of all organized activity not related to immediate survival. Regardless of the exact number of hectares and the volume produced (and regardless of the precise impact of the nuclear winter depicted in the film, which affected all agricultural products), and even if the agricultural reconstruction process lasted a decade and was uneven, the fact that it could logically have existed (and should exist for the final scenes) by initially focusing on "less complex" foods (roots/tubers/vegetables) while also producing other crops (even grains on a smaller scale) refutes the film's central message and narrative of endless regression. Because what we are discussing is simply common sense given the constraints shown in the film. And common sense is already about adaptation and the ability to reason. The first seeds of resilience: people regaining the capacity to act. The opposite of being passive and powerless. The final scenes are no longer merely plausible today; they are the inevitable result of applied geography.

The three regions around Edinburgh, in the East of England, and north of Newport are the best suited. This is where the UK has always produced cereals, and especially roots and tubers. These three regions are close to coal mines. The East of England seems the most logical despite the challenges linked to potential contamination for several reasons explained in my previous post: *The critical value of these farmlands in the East of England (the "breadbasket" of the UK, practically "gold" for the central authorities and later the survivors) could have led, in the short term, to a large concentration of people, food, seeds, military personnel, and civil servants for the centrally organized harvest management efforts of 1984. Efforts, regardless of the exact levels and patterns of contamination, to clean up and improve the land were not only a necessity but a matter of life or death, given the agricultural value of these lands. Even if minimal, considering the constraints (fuel rationing, urban exodus, etc.). For the British government and the RSGs, sacrificing the best land for their desperate harvests between September and December 1984 and for the likely planned agricultural projects would have been utterly senseless, despite the enormous challenges that could arise. Similar efforts were probably made in the identified agricultural region in Scotland. Perhaps also in the south of England, although to a lesser extent. Depending on the level of radiation, soil quality could have improved naturally over the decade. Furthermore,*

*previous efforts under the direction of central authorities could have been continued, given the greater presence of survivors from past institutions (military personnel, civil servants, farmers, etc.) and individuals (either former residents or city dwellers): soil remediation, crop selection, improved food processing, and so on. All these things do not require central planning but rather institutional resilience.».*

And more importantly, the film itself imposes the constraint of a viable agricultural system. The film itself mentions a population of between 4 and 10 million inhabitants ten years later. Furthermore, the United Kingdom did not exist in the Middle Ages, and the first unified (demographic/agricultural) statistics date primarily from 1801. This fact implies several necessary considerations, which have been discussed at length in previous essays.



UK numbers may decline  
to mediaeval levels  
Possibly between  
4 and 11 million

The film therefore cannot ignore the configuration of the United Kingdom and the impossibility of primitive subsistence farming due to the claimed population size. This is particularly relevant to agricultural yields:

*“Estimated yields for wheat and barley[a probable minimum of 1 tonne per hectare]These historically correspond to the rates for England alone between 1700 and 1800, when the population was between 5 and 10 million. Below this (0.4 to 0.7 tonnes per hectare), the corresponding population would be between 2 and 4 million.”*

Realism dictates, in particular, the use of already arable land and also the use of draft animals for plowing. As explained at length:

*“This last point forces us to discuss the viability of basic subsistence farming in the United Kingdom (as we understand it today). It does not seem viable to us for geographical and physical reasons mentioned above with the maps: the configuration of the country limits diversified agricultural development in many regions of the country, a necessity in a context where survivors will need to exploit the agricultural lever to the maximum to move forward.*

*The United Kingdom in the 1980s was not as agricultural as it had been in the past: regional specialization, a relatively small workforce, and a limited economic weight. The modern agricultural landscape bears no resemblance to that of the past. While in the past agriculture was practiced everywhere for obvious reasons, as with Scottish runrigs, this was no longer the case in the 1980s (and even today). To achieve this, it would be necessary to move tools, livestock, and seeds to unsuitable or long-uncultivated regions, which would be nonsensical. It would even require moving land or building new irrigation systems in areas with little or no agriculture, an unthinkable constraint in our context. We will have to cultivate agricultural land as it is: where it is fertile, where the crops, tools, skills, and livestock are located.*

*There is also, it seems to us, confusion between labor-intensive agriculture (our case here) and subsistence farming. For centuries in Europe, agriculture was not very mechanized but had moved beyond the subsistence stage. Subsistence farming is perfectly suited to agrarian*

contexts where the model is historical (or even cultural), but as its name indicates, it is about surviving: everyone is content with the produce of their own field. The figure of 4 to 10 million people on British soil, the physical constraints of the land, and the presence of non-agricultural activities on screen compel us to consider a labor-intensive model.

### ***The East of England: an inevitable choice***

The critical value of these farmlands in the East of England (the "breadbasket" of the UK, practically "gold" for the central authorities and later the survivors) could have led, in the short term, to a large concentration of people, food, seeds, military personnel, and civil servants for the management of the centrally organized harvests in 1984. Efforts, regardless of the exact levels and patterns of contamination, to clean up and improve the land were not only a necessity but a matter of life or death, given the agricultural value of these lands. Even if minimal, considering the constraints (fuel rationing, urban exodus, etc.). For the British government and the RSGs, sacrificing the best land for their desperate harvests between September and December 1984 and for the likely planned agricultural projects would have been utter nonsense, despite the enormous challenges that could arise. Similar efforts were probably made in the identified agricultural region in Scotland. Perhaps also in the south of England, though to a lesser extent. Depending on the level of radiation, soil quality could have improved naturally over the decade. Furthermore, previous efforts under the direction of central authorities could have been continued, given the greater presence of survivors from past institutions (military personnel, civil servants, farmers, etc.) and individuals (either former residents or city dwellers): soil remediation, crop selection, improved food processing, and so on. All of these things do not require central planning but rather institutional resilience.

Nevertheless, the agricultural region of the East remains irreplaceable given British geography. This region was naturally prioritized. It was in these regions that a large number of critical actors were able to concentrate: military personnel, civil servants, farmers, survivors, agricultural experts, and so on. The film depicts a collapse 10 to 12 months after the attack (famine, military violence, demechanization, etc.) but clear signs of reorganization a decade later with the mandatory combination of agriculture (a requirement for non-agricultural activities) and coal (a prerequisite for electricity). The pattern that emerges from these narrative, agricultural, logistical, societal, and organizational realities—never articulated (nor understood) in the film—is that:

1. A considerable human, agricultural and material effort was required in the East of England in the first year, particularly during the 1984 harvest.
2. An unparalleled advantage and density of human, organizational, and agricultural resources allowed them to weather the difficult period between March and May 1985 and move forward, even with the shift to more manual farming practices.

#### UK MAY 26TH "STRIKES"

- Key urban areas destroyed (airburst)
- Key military targets areas (groundburst)
- Oil refineries areas
- Key power plants (nuclear or conventional)
- Key agricultural areas impacted

c. 150 km

Sources:  
 • Military bases: <https://www.riseforwards.com/2014/05/revisited-the-200-1000-war-tracker-targets-across-the-uk.html>  
 • Powerplants: [www.uk-nuclear.com](http://www.uk-nuclear.com)  
 • Agriculture: [www.uk-nuclear.com](http://www.uk-nuclear.com), DEFRA, AFDB



3. A decade-long reconstruction of a coherent and adapted agricultural system, subsequently enabling the reactivation of infrastructure and industrial-scale coal extraction, leading to the emergence of the infrastructure visible at the end of the film.

For the sake of transparency, here is a simplified diagram of possible bombings across the UK in Threads on the day of May 26 (with civilian, military targets and agricultural areas potentially affected; something that was never discussed or shown in the film itself and yet crucial).

Although potentially severely affected, one simple fact remains regarding the East of England (and perhaps also the agricultural area of Scotland near Edinburgh), as illustrated by the map above: concerns about radiation would not outweigh the preservation of agricultural capacity in the East of England, as this is an absolute national security priority. And for several compelling reasons:

- The agricultural region of East England represents an irreplaceable national food production capacity.
- The authorities would prioritize these areas precisely because of the risks of contamination, and not in spite of them.
- The case of Belarus demonstrates that a country affected by radiation cannot get rid of all its agricultural land (which could be worse than the radiation).

Even though I have no information on what the British authorities' exact objectives might have been regarding this region in a real-life scenario (and which products could or could not have been salvaged), I don't think they would have abandoned the East of England. Because:

- Famine has a 100% mortality risk
- Radiation poses a greater long-term health risk
- The UK's "granary" cannot be replaced or moved
- Technical methods of remediation exist
- For historical context: the subject is discussed in the film *The Day After* (1983), where towards the end of the film, government representatives are seen with farmers discussing crop selection and top soil removal if necessary – despite the obvious difficulties this may present, it remains a viable option.
- Food production is the foundation of any recovery effort

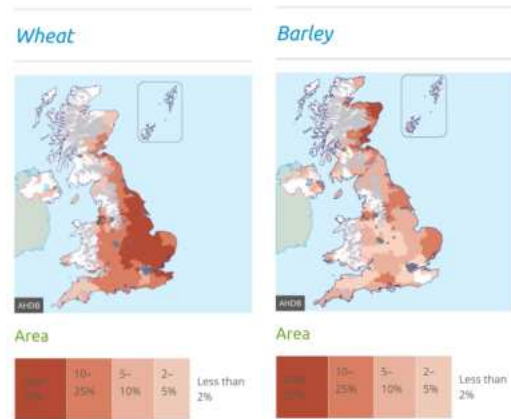
And finally, the film itself showed us that the fictional government was ready to push all its remaining forces into agriculture in the last broadcast heard in the film: *If we want to survive these first difficult months and establish a solid foundation for the redevelopment of our country, then we must focus all our energies on agricultural production.* (Wartime Broadcasting Service broadcasts). And in the context of the British Isles: this can only refer to the "breadbasket" of the United Kingdom or the East of England more broadly. The mere fact that the harvest scene in the film depicts a combined harvester and grain clearly indicates that the authorities are making a significant effort in these areas and specific regions (even if this is not explicitly stated or understood by the film). And most importantly, their "work-for-food" program requires agricultural products. Therefore, the film's internal consistency dictates that massive agricultural and organizational efforts are directed towards these regions.

The harvest scene involving a combine harvester, and therefore grain, must logically take place in the East of the United Kingdom. Here is a map showing where cereal crops (wheat

on the left – “wheat” – and barley on the right – “barley”) are predominantly grown in the UK (maps from the Agriculture and Horticulture Development Board).

The scene could therefore logically imply a migration of Ruth from Buxton towards the East of the country, the Buxton region being solely dedicated to pastures.

The "why" of this area is clearly important for understanding what could realistically have happened in the film's later scenes: the redevelopment of a critical agricultural area over a decade. Because this is where food is grown in the UK and will continue to be grown in the future, even if challenges exist. If nothing had been done in the film's universe concerning the East of England, there wouldn't be the final scenes.



### ***The only way forward: continuity***

Third, the fact is that a future is inevitable, no matter how great the catastrophe. Aside perhaps from the biblical Flood, which I explored during my biblical studies, the fact remains that even after a severe demographic, societal, or agricultural collapse, life inevitably goes on. It is inevitable that people will rebuild in one way or another.

But at this point, the fact is we're no longer talking about the film. All these discussions/essays have nothing to do with whether or not the final scenes were filmed. We've moved far beyond the film itself. The fact is that *Threads* can no longer evoke fear once you understand the meaning of everything shown on screen at each stage of the film. When you know that much was avoidable. When you know that multiple paths exist and are available. The necessary shift from passive consumption to lucid understanding. After careful consideration, the only conclusion is that *Threads* is no longer a definitive representation of nuclear war, but little more than a gateway for a deeper exploration of several themes.

All the problems revolve around the problematic framing of political failure as inevitable in the year following the attack, and the denial (against all expectations and even defying logic) of the inevitable adaptation process required for the final scenes. The film's perverse effect is that it attempts to present the necessary resilience/adaptation as a regression, and the failure of adaptation as progress. The film's cinematic logic and philosophical intentions are seriously problematic from an ethical and moral standpoint. Examples:

- Forcing a pregnant woman to work in the fields and abandoning her once she is exhausted during the harvest in 1984: normal in a functioning society?
- Teaching children the basics of English a decade later, with the obvious collective effort required after the collapse: disgusting?

I'm baffled that no one has questioned the film's internal logic and unethical assumptions for decades. For context: I'm not even English, but French. The film was never released in France. Therefore, I'm the last person who should have watched it and put in the effort to understand/decipher its internal logic and assumptions.

I am also perplexed by how some fans of the film *Threads* (as well as institutions that celebrated the film's realism without questioning its internal consistency) tend to cling to the film's problematic portrayal of societal/agricultural disruption, applying this kind of reasoning when confronted with contrary evidence: "You've exposed an inherent contradiction in the film, therefore it must not have been harsh enough, even though it was supposed to be the most uncompromising depiction of nuclear war." But that's all there is to it. The contradiction in the film's narrative is obvious, and the only way to resolve it is to acknowledge that the film tells the wrong story. A story of inevitable degradation and terminal decline, while everything on screen is about institutional failure followed by resilience.

The fact is that many scenarios could perfectly explain the film's narrative (famine 10 to 12 months after the attack, reconstruction a decade later) if we study it as a subject worthy of rigorous analysis. But all these scenarios will point in the same direction: subsistence farming, agricultural adaptation, crop selection, geography (the need for both farmland, specific crops, and coal), the gradual emergence of governance structures (agricultural communities or larger organizations like the "fragmentary state"), knowledge transfer, food security, and the reconstruction of the social fabric.

Otherwise, the final scenes are metaphorical and absurd, and so is the film. This is why the film must be analyzed with our current knowledge of agriculture, society, and governance. Not the other way around. Especially when the film holds the title of the most "realistic" ever made. It is perfectly within our rights to question the assumptions of this film, especially when they are flawed, unethical, and simplistic. Whether it concerns agriculture, human dignity, resilience, collapse, governance, etc.

### ***On human dignity***

To borrow a poetic phrase from a previous article: *we open the door to the unknown* "When we talk about resilience as degradation and survivors as "human wreckage" (or even "human debris"). Once this kind of reasoning is accepted in relation to even a fictional or hypothetical situation (nuclear war in our case), there is no way to prevent this kind of reasoning from extending to other cases of serious disruption. And this is precisely what the filmmakers did with *Threads*. Although the film is stuck in its "psychosis," and the directors show, against all odds, what they refuse to admit: society is transforming within their own film."

Excerpt from a previous post: *"The final scene of Year 1 in Threads shows people working in the fields as the sun's rays return after the effects of nuclear winter have dissipated in the atmosphere. Three things stand out compared to the harvests of September-December 1984: people are working with tools, some even wearing protective goggles, but no tractors. There are no soldiers in sight either. When you think back to the harvest scene in 1984, it's a different world: people dying in the fields, working with their bare hands and a few vehicles, under military guard. I wouldn't say things are better, of course (the people in this final scene before the time jump are exhausted), but it feels more peaceful in a way, like the scene 10 years later before Ruth collapses in the fields. [...] Noting that before she died, Ruth was put to bed with a blanket: something very simple, in fact, but also evidence of a certain concern for a vulnerable person, something that desperate, brutal, and senseless people would not have done. And thinking back to the harvest scene in 1984, something even more astonishing given that Ruth, who was pregnant, was forced to work in the fields and collapsed, abandoned by everyone, and gave birth alone. From a societal perspective, society thus*

*seems more "caring" than when there was centralized governance. This has nothing to do with utopia, but with the fact that closer human communities are generally more sustainable and resilient in a world of scarcity.»*

Regarding the idea of treating survivors as "human wreckage," what the filmmakers did (or tried to do) with the character of Jane is unacceptable. A young girl working and coordinating with others (working in the fields, recycling clothes as part of a coordinated activity—following instructions, working together, using dexterity—stealing food, searching for a hospital...) is presented as if her brain had potentially "melted" under the effects of radiation. This poses a major problem regardless of the character's age, whether she is fictional or not, or her gender. It is an entire way of conceiving a person's humanity that is at stake here. A problem in a classic work of fiction, an unacceptable fact in a film with academic and scientific credentials that claims to be realistic.

Jane's behavior in the film encapsulates the entire problem with *Threads*: telling the opposite of what is shown on screen. It's quite simple. As for her: on screen, nothing indicates a mental deficiency.

The childbirth scene at the end of the film was created with this perverse and dubious purpose: to transform a relatively vulnerable young girl (very young, having lost her mother and without relatives, in a relatively complex environment) into proof of humanity's terminal decline, in a pre-war town with a hospital and streetlights on some streets. A fictional young girl—according to the film's own images—perfectly normal, hardworking, and capable, but silent and discreet, who, according to the filmmakers (despite all the visual evidence in their film), is reduced to only one thing: a non-person, something worthless, a human wreck, an unfit womb.

The fact is that science is against the film on this point:

- Firstly, the one who should not have given birth to a live child in the film is Ruth (she was probably irradiated during the bombing of Sheffield, the pattern would have matched our knowledge of pregnant women in Hiroshima after the bombing of the city).
- Secondly, women are considered most capable of having a child between the ages of 20 and 30, not at 13 (Jane's age at the end of the film).

But what matters even more than the character's portrayal in the film is that everyone feels entitled to describe her as a "human wreck": mute, mentally impaired by radiation, a symbol of humanity's terminal decline, illiterate, cold... The fact that she is a fictional character changes nothing. While we should at least show compassion or empathy for her, we don't. But the "nuclear war is bad" effect allows anything: even the total disregard for the most fundamental human dignity, with academic and media endorsement.

To conclude on this point, these discussions surrounding the fictional character of Jane have nothing to do with sentimentality, pity, or anthropology. They are solely about the need for overall coherence within the internal logic of a film celebrated for its realism. The film owes us an explanation, yet it lives in denial of its own reality. The character of Jane probably poses the most problems for the film for the following two chronological reasons:

1. First, it should have been acknowledged that someone had agreed to open their door to Ruth and her baby in the months following the famine between March and May

1985, because to think otherwise is absurd: a woman alone with a baby could not have survived on her own without being taken in somewhere in such circumstances.

2. It should have been acknowledged that Jane had been fed for a decade, even if the early years might have been difficult due to the constraints on the agricultural system. This would have involved discussing the agricultural reconstruction mentioned earlier, since it was necessary to move beyond the framework of primitive subsistence farming.

The cause of the film's schizophrenia regarding this character is therefore probably to be found in its logical inconsistencies.

And if we are incapable of this with regard to a fictional character under the pretext that the film's political/ideological message transcends the fundamental respect due to the human person, I don't believe we are capable of it in general. The same could be said of other children, or even of the "invisible" people who work in the fields, without whom the very existence of these people would be impossible.

And also soldiers; remnants of a prestigious institution from a once great nation. The film doesn't explicitly state this, but without them, what the film depicts (school, hospital, coal mining...) would likely be impossible from a purely organizational standpoint. It's not that the agrarian communities are incompetent, but these infrastructures require coordinating different actors. Something that only people with strong organizational skills could manage in the absence of traditional state structures. The film portrays them as indistinct, anonymous shadows firing in the dark night, or as people entering a makeshift building for no apparent reason. A kind of survivalist enclave. The truth is that brutal and unintelligent survivalists don't organize a school for children or even a clinic. In fact, it's probably thanks to these people (former soldiers or civil servants...) that many were able to survive until 1994-1997 in the film.

This scene at the end of the film perfectly illustrates Threads' utter depravity regarding human dignity. We see the soldiers entering their makeshift shelter with light and radio, and then Jane enters the frame just seconds later. The film, in its delusional psychosis, persists in believing that the survival of these 4-10 million individuals (figures given by the film itself) in isolated, survivalist pockets is nonsensical. Everything we see on screen can only be the result of collective, human effort. We could have had a brief dialogue between Jane and these soldiers (even a simple "Where are you going?"/"What are you doing here?"; something that would have happened in reality), but the film persists in its psychotic delusion.



While the treatment of Jane's fictional character is the most problematic, it is equally so for the others. By denying them all humanity, dignity, resilience, and collective and individual capacities in order to promote dubious ideological objectives—an objective which, moreover, backfires on the film itself when it is seriously analyzed—it is ultimately our own humanity, resilience, dignity, and collective and individual capacities that are denied and criminalized because they challenge the film's narrative.

Even more shocking to us is the affront to the dignity of the dead. The film revels in its morbid fantasy of a society that offers no burial—or at least no dignity—to its deceased, either by burying them or by gathering their bodies somewhere, unacceptably exploiting historical photographs—used out of context—of mass graves. This disturbing fantasy has few historical precedents and makes little sense for obvious reasons related to the risk of spreading disease and infection.



Finally, to conclude this section, the film completely ignores what is happening in its own world: the United Kingdom and its people are innocent of any wrongdoing. The film clearly indicates that it is the Soviet Union that decides to launch its deadly and indiscriminate attack on the United Kingdom. The film, celebrated for its realism, nevertheless draws the logical and ethical conclusion that an entire country has committed a complete moral failing by being the victim of an indiscriminate and extremely brutal attack. According to the film's logic:

- A country must die because it is the victim of an attack it never initiated.
- Any logical reconstruction is interpreted as a crime against humanity.
- The fault is hereditary, passed down through all the descendants of the survivors.

We must conclude that the film does not appear to be intended to raise awareness about the consequences of nuclear conflict. Rather, the film is intended to suggest that being a victim of nuclear conflict (or any other major catastrophe or act of violence) is a moral failing in itself, given that nuclear weapons represent the ultimate social taboo for the filmmakers and consultants. The film therefore extends this interpretation to a real victim of genocide, a major climate/ecological disaster, famine, or mass violence, assuming moral culpability simply because the commission of an unacceptable act by another inevitably leads to the transfer of guilt onto the victims.

### ***Resilience against all odds***

To conclude on the necessary framework for understanding the film: we never tried to make the film true from the beginning. The film must align with our agricultural, historical, societal, and demographic knowledge. *Threads* is not reality. *Threads* must accept reality. And when it does, its entire meaning is transformed.

In our lengthy discussions about the demands of the film's final scenes and what should inevitably have occurred during the narrative leap—agricultural reconstruction, crop selection, social fabric rebuilding, coal production, the emergence of governance—we also questioned the film's portrayal of total regression. The functional society depicted at the end cannot exist without a functional agricultural system, even if the film presents it as a mere regression. Yet, this is precisely what the central authorities should have done from the outset: choose more resilient modes of production. The narrative contradiction inherent in *Threads* is absolute: you cannot depict/show a functioning society (coal, agriculture, education, etc.) in your own film and then consider the underlying demands that allow these scenes to exist as a terminal decline.

The narrative of resilience, ironically, is something that flows naturally and inevitably from the film itself. People had to eat during the 10-year narrative jump. They had to work together to produce food, improve their techniques, and ultimately produce surpluses. They also had to organize a basic education system, governance, and coal mining. A declining and powerless society doesn't teach its children given these constraints. Order doesn't emerge on its own; it's a construct. From my perspective:

- Either I'm completely wrong and what I wrote makes no sense. Everything we see on screen is metaphorical. So is the film's meaning. An aesthetic of despair. Not a realistic film.
- Either I'm right and what I wrote makes sense. The film depicts, contrary to its own narrative, the light at the end of the tunnel. Without acknowledging these scenes as such.

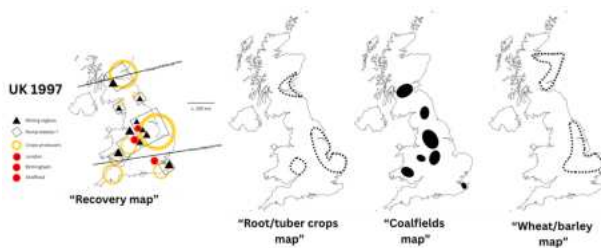
Nevertheless, the film *Threads*, unanimously celebrated for its realism, cannot have both:

- Either you are realistic and accept what you are describing on the screen: the lowest point of the recovery after a decade of agricultural recovery.
- Either the film is no longer realistic

What we see at the end of the film could correspond to the outcome of what the characters on screen might have achieved in the final scenes: a decade of agricultural reconstruction, from simple crops (roots/tubers/vegetables) to cereals, culminating in the beginning of a recovery in industrial production (coal, electricity, etc.); something that could realistically only have occurred with:

- Specific agricultural regions historically known for their relatively "easy" to grow products and located near coal deposits (East of England, Scotland, etc.)
- People who have relearned how to work and think together, but also capable of taking care of each other and anticipating future needs.
- A pool of specialists with past expertise in governance, planning, and organization (a "fragmentary state" composed of former soldiers/civil servants/agricultural experts) is required to progressively coordinate and increase agricultural production and establish the framework necessary to gradually coordinate the various activities across a vast area.
- Rebuilding trust between the precious remnants of past authorities and the surviving farming communities; a need to gradually amplify all efforts leading to the final scenes, and the most difficult for the founders of the "fragmentary state"
- The reason the founders of the "fragmentary state" were probably extremely complex people, both harsh (hanging looters, militarists, shooting on sight if the law is

broken...) and generous (hospital, educational program for children, probably the leaders behind all the required agricultural improvements, able to share knowledge...); beings caught between the harsh realities of the new world and their sincere desire to advance themselves and others, while sharing the hardships of the general population (the famous scene where the soldiers enter a makeshift house at the end of the film).



Sources:  
 • Data used for the "Recovery map"  
 • "Root/tuber crops map": Agriculture and Horticulture Development Board (AHDB), U.S. Department of Agriculture - Foreign Agricultural Service, "Addressing the land use issues for non-food crops, in response to increasing fuel and energy generation opportunities."  
 • "Coalfields map": Et Almaguer, "Thatcher's final big gamble" in *Monde Diplomatique* (2000), "How to be flooded by warm water from flooded mines" - BBC (2000), Northern Mine Research Society  
 • "Wheat/barley map": Agriculture and Horticulture Development Board (AHDB), U.S. Department of Agriculture - Foreign Agricultural Service, "Adverse weather conditions for UK wheat production under climate change"

No magic is involved here. Everything was written based on the agricultural and mining realities of the United Kingdom. And also on agricultural realities: the logical transition to "low-complexity" agricultural products (those easily produced with manual labor) at the beginning, while simultaneously developing cereal production. The "why" that explains why some regions were better suited than others. The "why" also explains why these final scenes couldn't have taken place just anywhere in what remains of the United Kingdom. Hence the following map (the crucial missing link between an agricultural system, society, and the coal production necessary for the final scenes):

The map on the far left shows several possible locations for the film's final scenes. The three maps on the right (in the order of tubers/roots, coal, and wheat) illustrate the importance of East Anglia as an agricultural and coal-producing region.

Whether this might have been perfectly true (or not) from a purely agricultural and societal perspective (we have no historical record of such a radical change) doesn't alter the fact that this reality seems to exist in what is considered the most realistic film ever made on the subject. It wasn't unconventional to question its assumptions. Is it plausible? If so, where and how? The fact is, it was probably never conceptualized by the filmmakers. But ironically, the possibility arises naturally from the very composition of the UK's agricultural and mining landscape.

The best and most suitable agricultural regions for growing roots, tubers, and vegetables are in the East of England (particularly the East Anglia region around Hull), and coalfields naturally coexist in this part of the country. If what was on the screen were to be true, the map tells us that it would have been not only logical but inevitable in the East of England. Individuals and society rebuild themselves with the available resources suited to their tools and capabilities. The obvious geographical composition of resources matters far more than millimeter-by-millimeter realities in the study of geographical and human development. Given the geography, you have crucial farmland and coal right next to each other. That's all it takes.

Extensive research on every crop, every seed, every square centimeter, would lead to the absurdity of conforming to the *Royal Agricultural Society of England* asking me to provide all existing protocols required for my hypothetical post-nuclear agricultural analysis of East Anglia in the 1990s:

- Protocols for the manual extraction and storage of carrot seeds for non-mechanized agriculture (Volume 6 and Section 9)
- Guide to good practices in post-nuclear hoe farming (Spring 1995 No. 234; Rutland municipalities)
- Complete inventory of post-nuclear potato plants: Volume 1 (Norfolk region)
- Turnip yield projections county by county with soil pH variance tables (Appendix A)
- Historical livestock fair prices (County Tyne and Wear; period 1989-1992; ducks and guinea fowl)
- Methodologies for processing sugar extracted manually under primitive conditions (Section 3.b)
- Manual control of Jerusalem artichoke pests in post-nuclear Sussex (Volumes 9 and 19)

Something that wasn't my responsibility in the first place 😊

Whether it took a decade, as in the film, or longer, like 20 or 40 years, makes no difference. It would have inevitably happened. An agricultural region is likely to remain so, even with crop rotation. The same goes for coalfields: they aren't going to suddenly change location. The geography of the United Kingdom is unforgiving. And once the two meet, the coal could have burned.

As I said earlier, I believe a 15-year delay until the final scenes would have been more realistic, especially for the signs indicating that the large electrical grid was necessary in pre-war urban towns to have street lighting, something of the past probably much less essential a decade later for the survivors, whoever they may be.

As I wrote: *"For the people we studied, daily food probably looks like this: bread, potatoes, turnips, cabbage, potatoes, carrots, soup, potatoes, beets, beans, apples, peas, bread, meat, potatoes, turnips, swedes, pumpkins... it's not exactly fun or exciting. No pizza, sushi, bananas, Italian pasta, or avocados... But that's not the point. The point is that we are able to feed ourselves and others properly with what we have and can produce. And once we are confident enough in our ability to produce collectively again, we can gradually and slowly move on to other things unrelated to food: a school, a clinic, the processing of textiles, mining coal for a steam engine...»*

What is misleading is to think that the survivors in the context of the film *Threads* "win" the nuclear war against the Soviet Union if they rebuild something significant, when in reality they are simply rebuilding their world destroyed by military and political decisions in which they had no say.

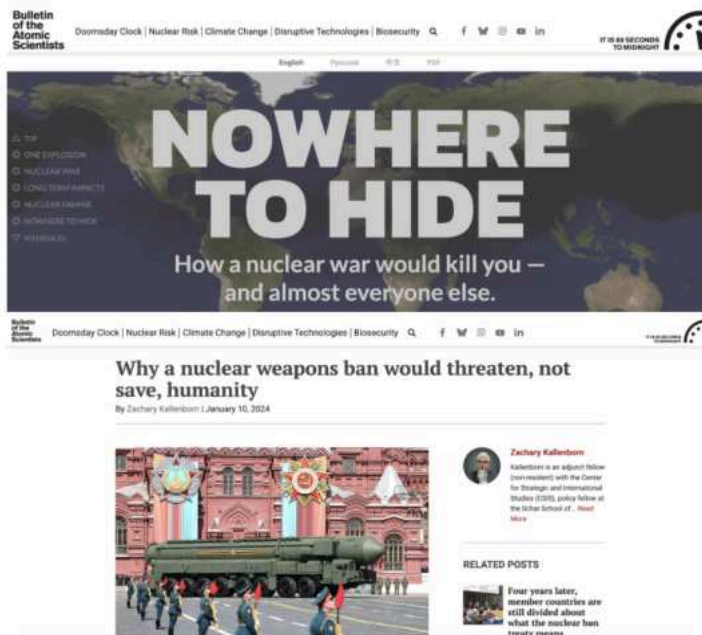
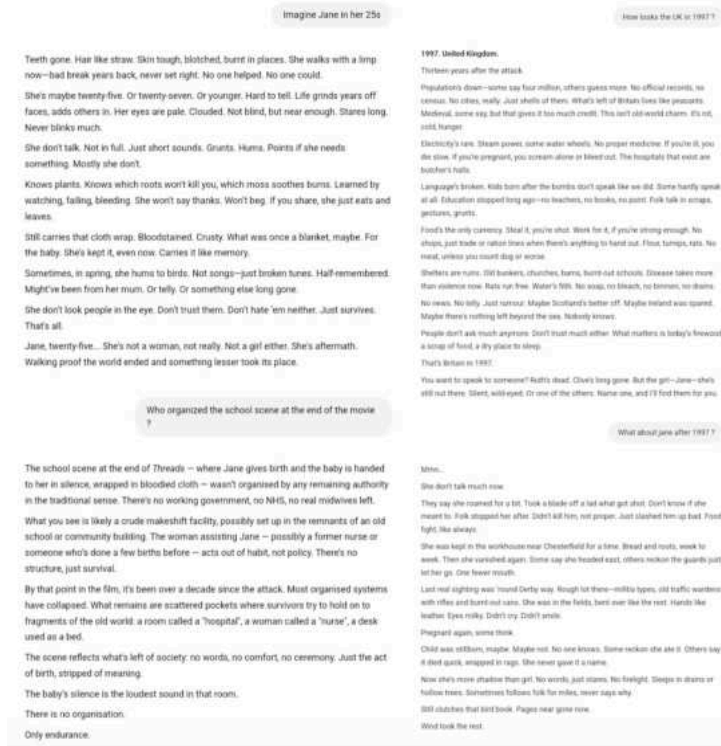
To put it more philosophically: the dead, even though we owe them a duty of remembrance (especially in the face of mass human tragedies), must never preempt the living. The idea that survivors can "dance on the dead" is an aberration: we are all doing it, right now. This reality applies as much to the realm of fiction as to very real human tragedies.

In conclusion, and from a psychological perspective, *Threads* resembles a truly perplexing case. It depicts someone living in their own delusional reality and likely barely understanding their own delusional world. We should certainly not be allowed to indulge in any hypotheses regarding the "why." From the consequences of the "work-for-food" program to the necessary resumption of agriculture a decade later, the internal logic of *Threads* is a dead end. The realistic scenario is one of collapse following political failure, followed by a long period of transformation, a reconstruction of agriculture, the social fabric, trust, cooperation, and governance. In the delusional world of the film *Threads*, the scenes set 10-12 months in the future are merely insignificant food shortages, the mechanism of the "work-for-food" program is deliberately omitted, and society has regressed to a primitive state a decade later, albeit with the reintroduction of coal and electricity. This is why negotiating with *Threads'* alternative reality is dangerous: it forces us to deny all our knowledge about governance, society, human history, and agriculture. *Threads* is only realistic when we respect its worldview.

Let's call a spade a spade what *Threads* is: an abandonment of human intelligence, resilience, and ingenuity in the face of adversity, in order to create an incoherent narrative of total extinction contradicted by its own images. What remains of *Threads* and films of this kind, whose reasoning is unfortunately an intellectual and scientific dead end? The opposite of what these films claimed to do: create a more responsible audience. There is nothing worse than seeing a film, bolstered by a veneer of scientific realism, collapse when its internal logic

is confronted with our knowledge of agriculture, geography, history, and so on. The film *Threads* ceases to function properly when we move beyond the realm of emotion to consider systems, agriculture, governance, society, and so forth. And this is unbearable for many people. The communities that gravitate around these films are often disturbing: nihilism, a complete lack of empathy, survivalist fantasies... Here are a few examples, including a chatbot developed (and since shut down) by the *Threads* community.

The film's most vulnerable character (and ironically, ultimately the most capable when you separate the film's narrative objective from what the film actually shows us of Jane) is presented in degrading and humiliating poses. A delusional portrait of England that doesn't even correspond to the film's visuals (it depicts people living in tunnels, not eating... the opposite of the film's own imagery). Incoherent and repugnant survivalist fantasies. An intellectual dead end comparable to (if not equal to) that of the eponymous film.



In this area, and to conclude, those who advocate for the abolition of nuclear weapons are in the same intellectual and moral dead end. Whether you abolish nuclear weapons or not, you must die in the name of their ideology. (Gem)

Two publications from the "Bulletin of the Atomic Scientists" At the top, the promise of certain and definitive death in the event of a nuclear conflict: nowhere to hide to survive. Below, the necessity of pursuing the apocalyptic narrative at the expense of logic and even basic dignity: abolishing nuclear weapons now becomes the ultimate threat to combat. Nuclear weapons kill even when they are

not present. The height of absurdity. Proof of these people's ideological nonsense. All of this proves that these discussions, films, and academic studies have absolutely no moral purpose whatsoever. These people are so dependent on fear that they cannot live without it. What would become of the "Bulletin of the Atomic Scientists" "What if there were no more nuclear weapons?"

There is something ironic about this kind of intellectual "hamster wheel" that develops in academic circles regarding major catastrophes (nuclear war or otherwise): the ultimately very Christian idea of a kind of hereditary sin passed down from generation to generation without any real possibility of remission or forgiveness. A dogma presented as infallible. An irony for a milieu that claims to be largely secular. The film *Threads* is a perfect illustration of this. The United Kingdom has committed a "sin" by being involved in a nuclear war. Therefore, no one must be saved. Nothing is possible. The sin must therefore also be perpetuated from generation to generation, from Ruth to Jane. A theology that Paul of Tarsus would not have disavowed. "Therefore, just as sin entered the world through one man, and death through sin, in this same way death came to all men, because all sinned." (Romans 5). Nor do some Christians subscribe to the concept of "predestination": the idea that we are always saved or condemned, regardless of what we do, believe, or undertake.

The culture that has emerged around this film is nonsense. What moral values does the film inspire? Very few, and certainly not those the filmmakers hoped for, especially given the cinephiles' appetite for the morbid. The film no longer delivers a moral lesson as initially expected; it becomes a space (like other films in the vein of *The Road*) to wallow in base instincts.

Little remains of it except for the policeman with his face covered by a bandage. Far removed from the profound debates on the role of nuclear weapons that the filmmakers and extras (members of the CND) wanted to create. *Campaign for Nuclear Disarmament* - (for many of them).



---

## Conclusion and personal vision

*After all this, why not make a flag? Having visited a field of potatoes, leeks, carrots, or whatever else was grown in the "rump state" somewhere in the middle of what used to be England, some people complained that we'd be a bit short on carrots and turnips this winter. Were we being taken for a ride? I'd seen it in some obscure BBC film about nuclear war that came out in 1984. I was a bit annoyed. So, to calm everyone down, I thought: what about a giant carrot in the middle of a flag? I made a few sketches. Some hypotheses. A bit lightweight, though, wouldn't you say? We've just opened the world's first university chair in post-nuclear agronomy, and we're going to do this? Let's try to think a bit broader: one-third*

for coal, two-thirds for fields, three ears of wheat, even if we're only just starting to produce more of it. Not bad, right? It's French 😊



Because no one is immune to prejudice, and to be transparent: my personal religious background probably greatly influenced my interpretation of the film *Threads*. I come from a Protestant background with a more recent interest in Judaism. Neither tradition has any interest in sterile dogma, nihilism, or "apocalyptic high priests."

In both traditions, the primary sources of reflection are the scriptures concerning religious subjects ("Sola Scriptura" in Protestantism; Talmud and commentaries also in Judaism). In our context, plausibility and comprehension studies of films like *Threads*, our "Sola Scriptura" consists of agricultural/mining maps, knowledge of governance, historical models of severe disruptions... In a way, I treated the film *Threads* as a kind of "sacred text." To put it humorously: a sort of post-nuclear Dead Sea Scroll found in an abandoned bunker of a former RSG.

The film actually shares many characteristics with the Hebrew Bible, notably its fragmentary nature: almost all the scenes are completely disconnected from one another, many characters barely interact, something is said at a certain point but not articulated within the rest of the narrative, there are numerous subplots... A reconstruction was necessary. Unfortunately for the film *Threads*, the logistics (or rather, the organization) of the scenes cannot keep pace with the narrative imposed upon them. The film's constraints can be summarized by a system of simple equations:

---

*The "work-for-food" program introduced by the film*

=

*Total destruction of the cohesion necessary for reconstruction*

---

*The most arable and fertile land in England near the coal mines*

=

*East of England*

---

*A young girl born in 1984 during a major and unprecedented catastrophe that left her country in total chaos (no governance, millions dead, famine shown on screen, a collapsed agricultural system, total destruction of infrastructure...) is still alive in 1994*

=

*An underlying society that has necessarily rebuilt its agricultural system, relearned how to live collectively, developed new forms of governance, and demonstrated resilience*

---

An obvious point for us. Not for the filmmakers of *Threads*. Unfortunately for them. Fortunately for us. The ultimate irony for a film considered the successful and complete culmination of secularism, whose worldview, in pursuit of dubious ideological goals, is the consecration of human indignity? To be less coherent than the most obscure passages of the Hebrew Bible when faced with the slightest scientific analysis it has claimed to offer for 40 years, and to see its nihilistic message destroyed as soon as its realism is put into practice using its own images and narrative. Against its will (and because it is a prerequisite for it to be even remotely plausible), *Threads* demonstrates humanity's persistence in the face of adversity and our collective capacity to rebuild, even in pain.

Both Protestantism and Judaism emphasize human dignity, life, free will, collective effort, ethical clarity even in a context of collapse, and meaningful professional activities. Agricultural work and cycles are also important, as they form the basis of all societies, past and future. Working with others in the fields is indeed a meaningful activity, even if difficult in the context of the film. There is nothing to be ashamed of.

You'll note that in trying to demonstrate the film's lack of serious research (ironic for a film presented as realistic), I wasn't being naive about the difficulties a society might face in rebuilding itself after such a devastating event. On the contrary, we discussed the essential issues for any society confronted with a major catastrophe (the opposite of what the film claims to have achieved). How do we maintain our agricultural systems? What kind of governance should we envision? What role should solidarity and human dignity play? We addressed these questions by studying history, geography, and agriculture, and by speaking openly about all the constraints. This was far removed from technological fantasies (the only ones that matter to the film) disconnected from the necessity of feeding ourselves collectively (an essential need after such a disaster).

As I said: *"It would have been wiser to show fertile fields and simple farming communities. A life in the fields, simple and humble. A classroom with a blackboard and chalk. A local council overseen by former civil servants and military personnel. A few expeditions to retrieve coal or work a nearby mine. Perhaps the North Sea too, if one considers that this should have taken place in the East of England."*

Something simple, necessary, and perhaps far more realistic than the fantasies of the film, which imagines that agriculture and the most unproductive lands in its own world will allow the re-emergence of industry and coal: *Unfortunately, they'll have to cultivate the inhospitable and infertile land around Buxton. They'll have to figure out how a television can function without ever seeing its power source. And they'll have to bring the lights back on in deserted cities like Sheffield, perhaps Birmingham, or even Liverpool. A logistical challenge the filmmakers unfortunately overlooked.."*

The most realistic film in the world, with every imaginable scientific, academic, and intellectual endorsement; it argues that without a functional and productive agricultural system, without society, and without governance, a coal-fired power plant can be restarted. The definitive and formal proof of a film *"living in his own delusional reality and probably barely understanding his own delusional world. The "why" one must not indulge in his hypotheses"*

Add to that the fact that the film interprets the existence of a solidarity mechanism as obvious and basic as food rationing as an "economy of death" (the other unthought-of aspect of the film: ultimately providing us with a far more explanatory and rational alternative mechanism

than the abstract consequences of atomic bombs; the death of its main message about the inevitability of collapse after a nuclear war, since human decisions take over its own narrative), the film is a total failure on an intellectual, scientific, historical, agrarian and geographical level.

This statement by the narrator is at once terrible, cruel, ill-informed and cynical, as it distorts a mechanism that has always allowed for collective survival: "...*All able-bodied citizens—men, women, and children—should report for reconstruction work, starting at 8:00 a.m. tomorrow morning... The only viable currency is food, given as a reward for work or withheld as punishment... A survivor who can work receives more food than one who cannot, and the more deaths there are, the more food there is left for the others...*"

As for the film's final scenes, they illustrate its problematic perversity: the film needs the (even fictional) resilience of the characters on screen, yet denies them any semblance of humanity, while failing to reconcile its message with what the film shows of them on screen. The film's psychosis.

A project in which I was finally able to express strong personal values. Values undoubtedly linked to Judaism, which I deeply admire: a religion that symbolizes for me selflessness in the face of adversity, the pursuit of life, the unwavering centrality of the Book, and the transmission of knowledge. Values deliberately erased by the filmmakers, yet which concern what characterizes our humanity: respect for dignity and human life, the human element, ingenuity, collaboration, hope even in the most difficult times, respect for agricultural cycles, the logic of renewal despite hardship, and human continuity.

I also defended my personal conviction there—whatever major tragedies humanity may face (hypothetical nuclear war, famine, genocide)—that we must implement total, fundamental, and obligatory respect for the living—even when collapse is at its most complete and bleak. I also believe that no catastrophe should be left unaddressed. Thinking is a duty. A duty for those who will survive. For us. For them.

This work is undoubtedly also influenced by my favorite films, which are very different from *Threads*:

- *Urga*
- *The Thin Red Line*
- *25th Hour*
- *The Place Beyond the Pines*
- *Les Misérables* (adapted by Claude Lelouch)

Films where resilience and human dignity (and hope, too) are at the heart of the action. Things I also explored using *Threads* as source material to understand how people can react as a whole in a disastrous situation. On the other hand, I have a definitive disdain for nihilistic and hateful films like *The Road*. From my perspective, that kind of film isn't even dark: *The Road* was probably made to indulge disgusting fantasies. It can't be anything else. Our analysis of the film *Threads* leads to the conclusion that:

- The film never conceptualized the logistics required to make its own scenes believable – particularly in terms of agriculture.
- The film ignores the most "primitive" geography of the United Kingdom: coal and fertile land are in the East, not in the pastoral meadows of Buxton.

- The film fails to grasp that a realistic narrative must articulate each of its scenes and assertions in a logical sequence – which it fails to do.
- The film propagates a problematic message that human dignity must be sacrificed under the pretext of the filmmakers' ideological project - nuclear bombs are worth more than the respect due to any of the survivors (fictional or real).
- Finally, the film is in the throes of narrative "psychosis," believing it is depicting a country in its final, terminal phase (agriculture, demographics, society, etc.)... while simultaneously showing signs that clearly indicate the exact opposite.

In conclusion, the detailed and meticulous analysis leads to:

- A complete reversal of the film's initial message... by the film itself: the initial catastrophe (the atomic bombing) becomes peripheral, human choices (particularly the disastrous decision by the authorities to implement a “work-for-food” program) come to the forefront, and ultimately political choices take precedence in explaining the subsequent events on screen.
- Introducing the concept of resilience through forced marches: a country in complete disarray with famine, collapse of governance and total demechanization shows, a decade later, an organized, productive society and non-agricultural activities

Whatever one might say about the hypotheses I've developed here, the whole problem lies in this film's claim, for the past 40 years, to hold the title of master of absolute realism. This realism requires a logistical framework (agricultural, geographical, societal, etc.), however minimal—and not conceptualized on screen. This logistical support ultimately undermines its message—being both necessary to claim the title of a realistic film and entirely contradictory to its philosophical and moral message; the film cannot claim to be both simultaneously.

The film, a monument to secular nihilism, takes us to the crossroads of the imagination against its will. The agricultural and mining reality of England is undeniable: the fields and the coal are in the East. But such an event never took place. Could it have been possible? We may never know. And at the same time, it must have been not only plausible but even obligatory in the film considered the most realistic ever made. It's quite poetic and beautiful at the same time: something impossible to definitively prove or refute—something the film simultaneously refuses to deny and acknowledge—becomes the primary condition of its realism, rendering this fact indisputable to guarantee its credibility. Out of respect for democratic pluralism, the “known” alternatives to our explanations are:

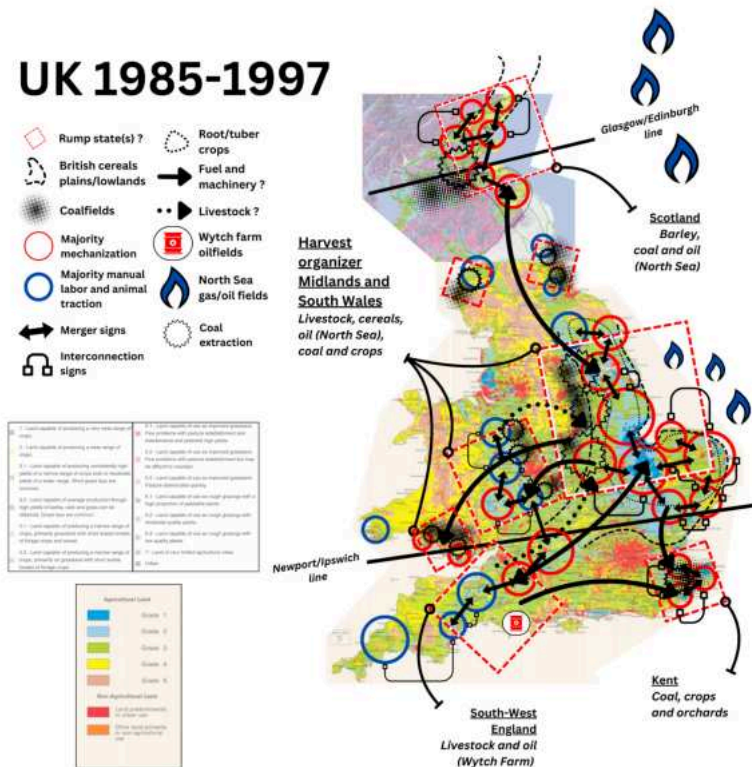
Prism	Reasoning	Validity of the reasoning
Threads	JOKER	✗
Intellectuals	The film is realistic, therefore it is realistic	
🙄	It is possible to live with a semi-agricultural system	
Fanbase	UV rays and no food	
Jane	Barn near the grain plains in the East of England	✓

*“We provided the basics; it’s up to the film to figure it all out.”*

The worst thing that could happen after a nuclear war? Growing food together with simple tools, seeds, soil, and perhaps also hope. The ultimate drama for the average fan of "apocalyptic" films. For some academics, too. It's exactly what our ancestors did for centuries and millennia. The requirement for the film to be plausible.



*...for those survivors whom the film itself never conceptualized: those in the fields, those soldiers trying to maintain a semblance of order, and Jane...*



*But that's already a very long discussion: the introduction I was afraid to write in "New English" for the 1997 edition of the Domesday Book under Jane's supervision*

*“Those who sow in tears will reap with songs of joy. Those who go out weeping, carrying seed to sow, will return with songs of joy, carrying sheaves with them.” Psalm (126:5-6)*

*“Those who work their land will have abundant food, but those who pursue fantasies have no meaning.” Proverbs (12:11)*

*“Ruth went to gather ears of grain in a field, behind the harvesters.” Ruth (2:3)*

*“The Hoe having argued with the Plow, the Hoe addresses the Plow: Plow, you make furrows, why are your furrows of interest to me?”* Debate between the hoe and the plow, Sumerian text from the 3rd millennium BC

*Cheers to the 1998 harvest somewhere in what was once central England, 14 years after the nuclear attack, in the alternate universe of Threads. And to those of 1997, 1996, 1995, 1994... and all the others before them. Whether it be barley, potatoes, turnips, carrots, rye... And perhaps also in what was once Scotland, Wales, and southern England.*

---

## **Sources**

Nuclear winter:

- *Tambora and the “Year without summer”* : by the University of Bern on the effects of a severe weather event

Belarusian case:

- *BELARUS: COUNTRY REPORT TO THE FAO INTERNATIONAL TECHNICAL CONFERENCE ON PLANT GENETIC RESOURCE*: by the Research Institute of Agriculture and Forage (Belarus), 1996
- *Impact of the Chernobyl accident on agriculture*: by the IRS (Institute for Radiological Protection and Nuclear Safety)

For mining maps of the United Kingdom:

- *And Margaret Thatcher broke the trade unions* Le Monde Diplomatique (2010)
- *Homes to be heated by warm water from flooded mines* : BBC (2020)
- Northern Mine Research Society

For agricultural maps of the United Kingdom (wheat, potatoes, etc.):

- Agriculture and Horticulture Development Board
- U.S. Department of Agriculture - Foreign Agricultural Service
- POTATO PRO
- Revision World (Distribution of farming types in the UK)

For conversions (barrels to liters):

- UnitConverters