

EURASIA WITHOUT AGRICULTURE

A Thought Experiment — What If the Agricultural Revolution Had Never Happened?

Sapiens I: Humanity Before Agriculture | Jesse Frey, Instructor | University of Arizona OLLI

WHY THIS THOUGHT EXPERIMENT IS WORTH DOING

One of the most powerful tools in historical thinking is the counterfactual — asking not just what happened, but what might have happened under different conditions. The Agricultural Revolution, which began in the Fertile Crescent roughly 11,500 years ago and spread independently across at least eight regions of the world, is so foundational to everything that followed — cities, states, writing, metallurgy, organized religion, science, and the world we inhabit today — that it is easy to mistake its consequences for inevitabilities. They were not. Agriculture was a contingent development driven by specific ecological conditions, specific available plant and animal species, and specific demographic pressures that converged in specific places at specific times. Had those conditions been slightly different, cognitively modern humans — people with exactly our brain capacity and our social sophistication — might have spent another 13,000 years elaborating the forager world rather than building the agricultural one.

The Australian Aboriginal case, which we examined in Session 6 as the world's longest and most complete natural experiment in forager life, gives us a concrete reference point for what that elaborated forager world might have looked like. Australia's 50,000-year experiment produced sophisticated continental information networks, rich cosmological traditions, complex social organization, and remarkable ecological knowledge — all without agriculture, metallurgy, or writing. The thought experiment below asks: if Eurasia had followed a similar trajectory, how would the result have differed from the Australian case, and what would the world look like today?

THE STARTING CONDITIONS

Eurasia at 13,000 BP was populated by anatomically and cognitively modern humans who had been living as foragers for at least 40,000 years. They already had sophisticated stone tool technology, bone needles, cave art, Venus figurines, elaborate burial practices, and long distance trade networks spanning thousands of miles. The Gravettian ceremonial network connected populations from France to Siberia through shared symbolic practices. These were not primitive people on the verge of a breakthrough. They were sophisticated foragers who happened to live in an environment about to make agriculture possible. Now remove agriculture entirely and run the experiment forward 13,000 years.

THE GEOGRAPHIC DIFFERENCE FROM AUSTRALIA

Eurasia is not an island. It connects to Africa in the south and was connected to the Americas via Beringia until roughly 11,000 BP. Eurasian forager populations would have continued to interact, exchange, and occasionally conflict with populations across an enormous connected landmass. The genetic and cultural isolation that shaped Aboriginal Australian distinctiveness over 50,000 years would not have occurred. The sheer size and latitudinal span of Eurasia — from the Arctic to the tropics, from the Atlantic to the Pacific — means an enormous range of environments supporting an enormous range of forager adaptations. The cultural diversity of a non-agricultural Eurasia after 13,000 years would probably have exceeded even Aboriginal Australian linguistic diversity.

POPULATION

Without agriculture, Eurasian populations would have grown extremely slowly — perhaps doubling every thousand years rather than every generation. By today Eurasia might support perhaps 5 to 10 million people rather than the 5 billion it currently holds. This is the single most consequential difference. Almost everything else flows from it. At 5 to 10 million people across the Eurasian landmass, population density would have remained low enough that forager band social organization remained viable everywhere.

SOCIAL ORGANIZATION

The Eurasian forager world without agriculture would probably have developed ceremonial networks analogous to but more elaborate than the Aboriginal Australian songline system, given the longer time depth and larger geographic scale. The Gravettian network, which already connected populations from France to Siberia, would have continued to develop over 13,000 more years. Regional ceremonial traditions would have differentiated significantly, producing something analogous to Aboriginal Australian cultural diversity but at continental scale — perhaps 2,000 to 3,000 distinct language groups across Eurasia, each with its own cosmology, its own geographic knowledge system, and its own ceremonial network.

TECHNOLOGY

Without agriculture there would be no metallurgy — not because foragers are incapable of it but because the social conditions that drove metallurgical development would not have existed. No stored surplus means no specialist craftsmen freed from food production. No cities means no concentration of demand for metal tools and weapons. Stone, bone, and wood technology would have continued to develop. Watercraft technology is an interesting case — Polynesian navigation developed in an island-hopping context and produced some of the most sophisticated pre-industrial seafaring in the world. Eurasian coastal forager populations with 13,000 more years of maritime development might have connected Eurasia, Africa, and eventually the Americas through maritime trade networks without agricultural complexity.

WRITING AND INFORMATION SYSTEMS

No writing in any form we would recognize — the social conditions that drove writing's development, primarily administrative record-keeping for agricultural surplus and trade, would not have existed. But the songline model suggests that oral information systems of extraordinary sophistication might have developed instead. Eurasian foragers with 13,000 more years and a larger, more environmentally diverse continent to encode might have developed oral information systems of comparable or greater sophistication than the Aboriginal Australian songline network.

RELIGION AND COSMOLOGY

Non-agricultural Eurasia would have remained broadly animist across its entire geographic range, with regional elaborations analogous to the variation in Aboriginal Australian Dreamtime traditions. The great monotheistic traditions — Judaism, Christianity, Islam — which are directly or indirectly products of agricultural civilization, would not have existed. The moralizing high gods that appear late and in association with larger, more complex societies would not have developed. What 13,000 more years of animist religious development might have produced across a vastly larger and more environmentally diverse landscape is genuinely unknowable but potentially extraordinary.

VIOLENCE

Without agriculture and the fixed assets, stored surplus, and population density it generates, Eurasian violence would have remained at forager levels — significant interpersonal violence and organized raiding between neighboring groups, but no organized warfare aimed at territorial conquest, no standing armies, no states capable of mobilizing mass violence. The absence of metallurgy would have limited weapons lethality. Regional violence patterns would have varied as dramatically as in the Aboriginal Australian case — some regions developing relatively peaceful inter-group relations through elaborate ceremonial diplomacy, others developing revenge cycle violence driven by specific social conditions.

THE MOST UNSETTLING IMPLICATION

The thought experiment reveals that everything we think of as civilization — cities, states, writing, metallurgy, organized religion, law, philosophy, science — is not the inevitable product of human cognitive capacity. It is the product of a specific set of social conditions generated by a specific subsistence transition that occurred independently in eight to ten places between 11,500 and 3,000 years ago. Had those transitions not occurred, human beings with exactly our cognitive capacity might have spent another 13,000 years elaborating the forager world rather than building the agricultural one. Whether that world would have been better or worse than the one agriculture produced is exactly the question Harari is asking when he calls the Agricultural Revolution history's biggest fraud. The Australian petri dish suggests it would have been different in ways that make simple better or worse judgments very difficult. That is probably the most honest and most interesting conclusion the thought experiment offers.