MODES OF PRODUCTION

Geography · war · networks · ruling classes

From forms of plunder to cybernetic communication networks.
A comparative historical study, illustrated with diagrams and examples from around the world.

PLUNDER	AGRICULTURAL	INDUSTRIAL	CYBERNETIC
Movement	Fortifications	Power	Communication / networks / control

Edition of 29 October 2026 · Theoretical essay, without a mathematical model
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Foreword — A proposed historical interpretation

This work revisits the main arguments of an extended discussion: the geography of four modes of production, attack and defense strategies, military functions, communications, logistics, control networks, and consent to war. It reorganizes these elements into a continuous, thematic argument.

The four “modes” are used here as a theoretical framework for power relations: plunder, agricultural, industrial and cybernetic. These categories must not be confused with exclusive historical periods: livestock raising, commerce, agriculture, industry, digital networks and political forms often overlap.

Guiding hypothesis: a new form of domination does not erase its predecessors. It uses them, transforms them, and inherits their material and social contradictions.

Outline of the work

• I. Geographies and forms of domination
• II. War and defense: strategies, functions and combinations
• III. Historical examples from around the world and defensive victories
• IV. The logic of the cybernetic mode: network of networks and controls
• V. Contemporary wars and the pre-cybernetic transition
• VI. Synthesis, limitations and further reading

I. GEOGRAPHIES AND DOMINATION

Four spatial forms present in every mode, with one dominant organizing form.

1. Nomadic, fixed, concentrated, distributed

Historically, plunder favors movement toward wealth to be appropriated; agriculture derives its power from productive rootedness; industry brings machines and workers together; the cybernetic mode connects activities dispersed across territories. No one form has a monopoly over any period.

MOBILE	FIXED	CONCENTRATED	DISTRIBUTED
Movement	Fortifications	Power	Communication / control

Mode	Typical form	The other forms remain necessary
Plunder	Nomadic	Fixed bases, groupings of forces, redistribution circuits
Agricultural	Fixed	Transhumance, large estates, dispersed farms
Industrial	Concentrated	Mobile construction sites, fixed sites, supplier chains
Cybernetic	Distributed	Mobile terminals, fixed centers, concentrated computing

Four organizing spatial forms



Each form remains present in every mode of production.

2. The sixteen geographic combinations

Mode	Nomadic	Fixed	Concentrated	Distributed
Plunder	Raids and expeditions	Privateer ports, camps	Siege armies	Predation networks
Agricultural	Shifting cultivation, transhumance	Villages, irrigation	Plantations and estates	Connected farms and markets
Industrial	Mobile worksites	Factory towns, arsenals	Manchester, Ruhr, Detroit	Industrial districts and subcontracting
Cybernetic	Mobile fleets and terminals	Warehouses, sensors	Data centers	Platforms and dispersed audiences

The dominant form is the one that functionally organizes the others; it is not necessarily the most widespread in terms of area, people or investment. A fleet of raiders may rely on a stable port; a globally distributed social network depends on concentrated computing centers.

3. Three geographies of the same power

We must distinguish where the rulers live, where the means of exploitation are located, and where the exploited are found. The same system may have concentrated owners, localized infrastructures and dispersed workers. The geography of control and that of work do not necessarily coincide.

4. Africa, Asia, India, the Americas: combinations

Viking camps and privateer ports illustrate plunder based at fixed locations. Irrigated fields of the Nile, rice paddies of Asia, agricultural systems of India and Andean terraces show the importance of rootedness. Caribbean and Brazilian plantations combine fixed land and concentrated labor. Contemporary Asian workshops and production chains illustrate widely distributed industry on a large scale.

II. WAR AND DEFENSE

A dominant strategy can mobilize all the other strategies and all the spatial functions.

5. Raid, invasion, expansion, network

Mode	Proposed strategy	Dominant purpose
Plunder	Raid	Rapidly appropriate goods and resources
Agricultural	Invasion	Subjugate or devastate productive land
Industrial	Expansion	Expand and destroy the adversary's material capacities
Cybernetic	Network	Master, disorganize or subordinate systems of control

These categories designate a dominant logic, not an exclusive repertoire. Agricultural warfare includes raids; industrial warfare uses invasions and communications; cybernetized warfare employs material destruction. The essential distinction concerns the principal object of domination.

6. Sixteen strategic combinations

Mode	Raid	Invasion	Expansion	Network
Plunder	One-off booty	Predatory conquest	Multiplication of areas of seizure	Ports and intermediaries
Agricultural	Exactions	Occupation of land	Expansion of estates	Fortresses and tribute
Industrial	Limited strikes	Productive occupation	Expansion of fronts and capacities	Command, logistics
Cybernetic	Limited disruptions	Control of infrastructure	Expansion of systems	Integrated coordination and control

7. The four military functions

MOBILE	FIXED	CONCENTRATED	DISTRIBUTED
Movement	Fortifications	Power	Communication

Movement: act and reposition. Fortifications: protect positions and functions. Power: concentrate means and their effects. Communication: connect and coordinate distributed forces.

8. The six fundamental pairs

Pair	Complementarity	Contradiction
Mobile + fixed	Expeditions from protected bases	Freedom of maneuver / immobilization
Mobile + concentrated	Power moved rapidly	Speed / logistical burden
Mobile + distributed	Actions along several directions	Links / isolation
Fixed + concentrated	Heavily defended fortification	Resistance / encirclement
Fixed + distributed	Multiple positions, extended defense	Coverage / dispersed forces
Concentrated + distributed	Power arising from separate units	Coordination / dispersion

Four single forms, six double combinations, four triple combinations and one quadruple combination give fifteen nonempty sets. An army can be distributed on a large scale, concentrated locally and mobile during an operation.

9. Three distinct concentrations

We must distinguish the concentration of forces, that of command and that of resources. An army composed of separate corps may receive unified strategic direction; a concentrated force may have distributed support. Added to these three dimensions is the concentration of ownership and social power.

10. Material, functional and social defense

Material defense preserves equipment, territories and people; functional defense maintains production, exchanges, communications and coordination; social defense preserves or transforms relations of domination. A military defeat may occur without the disappearance of the mode of production.

The four military functions



These functions combine; none operates in isolation.

WAR AND DEFENSE — IN-DEPTH HISTORICAL CASE STUDIES

This development supplements the “War and Defense” and “Lessons from History” chapters. Each example is interpreted through the four selected functions: movement, fortifications, power and communication. The four functions coexist; what changes is their relationship, their predominance and their vulnerability.

Caution: “plunder,” “agricultural,” “industrial” and “cybernetic” are interpretive categories here, not exclusive descriptions of the societies cited. “Communication” means the circulation of orders and information; it is neither equivalent to the distribution of forces nor to political control.

Four questions for every conflict

Dimension	Historical question	Point of vulnerability
Geography	Who moves, who stays put, where are resources concentrated?	Overextension, encirclement, exposure
War / defense	How does an attack alter the functions of defense?	Misuse of reserves, rigidity
Networks	How do orders, supplies, energy and reinforcements circulate?	Delay, breakdown, overload
Population	Who agrees, produces, supplies or refuses to fight?	Loss of support and sustaining capacity

A common mistake must be avoided: attributing victory to a single function. A fortification may depend on the movement of a reserve; concentration may require a distributed supply network; effective communication may allow means that remain far apart to be concentrated.

1. Scandinavian world, eighth–eleventh centuries — raids and fixed bases

Situation. Viking raids mobilize mobile naval forces. Winter camps, ports and marketplaces nevertheless allow expeditions to be repeated.

Function	Attack / dynamics	Defense / compensation
Movement	Ships and coastal or river incursions	Responsiveness of riverside defenses
Fortifications	Launch bases, camps and refuges	Fortified sites and protection of crossings
Power	Temporary concentration of crews	Mobilization of garrisons and local armies
Communication	Exchange of information between crews and bases	Messengers, signals and alerts

Networks and logistics. Ships replace neither supply nor return points; fixed bases allow mobility to endure.

Interpretation of the model. Mobile plunder + logistical fixation. The dominant logic of raiding depends on defensive infrastructure and long-distance communication. Predation does not exhaust the economy of Scandinavian societies.

2. Mongol Empire, thirteenth century — dispersing and regrouping

Situation. The armies of the Mongol conquests are noted for the mobility of their units and their capacity to operate along several axes, but they also use sieges, engineers and administrations.

Function	Attack / dynamics	Defense / compensation
Movement	Rapidly deployed mounted columns and formations	Mobile defense, difficult in certain spaces
Fortifications	Sieges and control of fortified points	City walls and defended towns
Power	Regroupings to achieve local superiority	Grouped territorial armies
Communication	Messengers, scouts, relays and command	Warning and coordination between cities

Networks and logistics. The vast extent of campaigns requires relays and supplies; mobility does not eliminate the need to concentrate resources for a siege.

Interpretation of the model. Dominant movement, reconstituted power. The information network is a condition of mobility, without turning these wars into cybernetic wars.

3. Đại Việt, 1285 and 1288 — defense without holding every position

Situation. Facing Mongol and Yuan invasions, the Trần monarchy uses withdrawals, terrain and preservation of its forces. The 1288 campaign culminates in the river battle of Bạch Đằng.

Function	Attack / dynamics	Defense / compensation
Movement	Invaders' land and river operations	Withdrawals and local movements
Fortifications	Attempted occupation of strongholds and routes	River strongpoints and terrain
Power	Assembled conquest forces	Defensive concentration at the chosen moment
Communication	Need for links and support over long distances	Knowledge of waterways and local coordination

Networks and logistics. Defense uses the territory and reduces the adversary's support advantages, without assuming a permanent battle for every town.

Interpretation of the model. Political fixation, defensive movement. Territory can be preserved by temporarily surrendering certain positions; defending power is not reducible to immobility.

4. Adwa, Ethiopia, 1896 — African concentration and support

Situation. Menelik II's Ethiopian army defeats an Italian army at Adwa, on difficult terrain, against a backdrop of large-scale political and military mobilization.

Function	Attack / dynamics	Defense / compensation
Movement	Italian columns advancing through poorly understood terrain	Assembly of Ethiopian forces
Fortifications	Local positions and control of passages	Advantage of local terrain knowledge
Power	Fragmented Italian forces	Ability to mobilize superior power on the battlefield
Communication	Orders and reconnaissance confronted by uncertainty	Coordination of commands and alliances

Networks and logistics. Assembling and supplying troops are essential; the local advantage unfolds in a context of political stakes and mobilization.

Interpretation of the model. Power + movement + communication. This example rules out presenting concentration and coordination as exclusively European or industrial properties.

5. Napoleon in Russia, 1812 — stretched networks and scorched earth

Situation. The advance of the Grande Armée increases distances between its forces, depots and decision centers. Russian withdrawals and the denial of local resources aggravate the logistical challenge.

Function	Attack / dynamics	Defense / compensation
Movement	Deep French advance into the territory	Russian withdrawals preserving forces
Fortifications	Depots, towns and relays progressively farther away	Seizure or destruction of local resources depending on location
Power	Initially very large army	Russian army able to continue operations
Communication	Orders and correspondence traveling with increasing delays	Terrain knowledge, information and continuity of command

Networks and logistics. Distance multiplies the need for food and fodder; convoys become slower and more expensive. Cold, disease and fighting subsequently worsen the catastrophe.

Interpretation of the model. Materially present power, increasingly ineffective support. Agricultural warfare through resource denial and the stretching of networks undermine a mass army. This analogy with network disorganization does not make 1812 a cybernetic war.

6. France, May–June 1940 — mobile concentration and defensive disorganization

Situation. German armored divisions, concentrated along the main axes of effort, cross the Ardennes and the Meuse while some of the best Allied forces move toward Belgium.

Function	Attack / dynamics	Defense / compensation
Movement	Rapid advance of mechanized formations	Defensive movements insufficiently adapted to the breakthrough
Fortifications	Bypassing sections of fortifications	Powerful works, but no barrier across the whole front
Power	Concentration of armor and air support	Reserves poorly positioned to respond at Sedan
Communication	Radio and relative delegation of initiative to mobile units	Coordination and decision-making difficulties under pressure

Networks and logistics. Mechanized advance requires fuel, routes, repairs and communications; the lack of appropriately positioned reserves weakens the Allied response.

Interpretation of the model. Integrated mobile concentration and communication. This is not “the tank against the fortification” but the combination of all four functions against a defense whose reactions arrive too late.

7. Battle of Britain, 1940 — communication at the heart of defense

Situation. The British system combines Chain Home radars, observers, filtering centers, sector command and fighter squadrons. Fixed installations guide mobile air power.

Function	Attack / dynamics	Defense / compensation
Movement	Luftwaffe air raids	Squadrons capable of interception
Fortifications	Launch bases on the continent	Fixed radars, airfields and operations rooms
Power	Concentration of waves of attacks	Fighters concentrated locally when necessary
Communication	Air coordination, but imperfect information on British defenses	Dowding system's warning and command chain

Networks and logistics. Information gathered from fixed stations saves flying time and helps allocate resources where they are useful.

Interpretation of the model. A precursor of the control network. Communication transforms distributed forces into a coherent defense. The system nevertheless remains industrial and depends on personnel, energy and physical links.

8. Kursk, July 1943 — mobile power confronted with depth

Situation. The German offensive encounters prepared Soviet defenses: minefields, antitank positions, successive echelons and reserves. The attack does not achieve the intended strategic breakthrough.

Function	Attack / dynamics	Defense / compensation
Movement	Advance of armored formations	Movement of reserves as the front develops
Fortifications	Attack on fortified positions	Successive positions in depth
Power	Concentration of resources on selected sectors	Substantial artillery and antitank assets
Communication	Coordination of mechanized units and their support	Transmission of observations and orders between echelons

Networks and logistics. The defense absorbs enemy forces over several lines, while logistics and reserves sustain the prolonged effort.

Interpretation of the model. Fortifications organizing power and movement. Successful defense is not synonymous with immobility: it preserves the ability to react and counterattack.

9. Điện Biên Phủ, 1954 — a fortress deprived of its logistical network

Situation. The French garrison occupies a fortified base at the bottom of a valley. The Việt Minh deploy artillery, trenches and supply resources around the position.

Function	Attack / dynamics	Defense / compensation
Movement	Progressive approach of Việt Minh forces	French mobility limited after encirclement
Fortifications	Siege trenches and artillery positions	Garrison's fortified positions
Power	Concentration of troops and siege resources	Firepower and garrison concentrated in a confined area
Communication	Campaign coordination and links to rear bases	Internal communication but dependence on aerial supply

Networks and logistics. Porters, loaded bicycles, convoys and prepared roads allow the Việt Minh to sustain the siege; French supplies depend on an air route that has become very vulnerable.

Interpretation of the model. Logistics distributes power. Fortifications cannot compensate for the loss of material links. The example also shows the decisive role of mobilized populations in supply.

10. Berlin, 1948–1949 — defense through logistical substitution

Situation. The Soviet blockade of land routes into West Berlin leads to the organization of an Allied airlift to supply the city.

Function	Attack / dynamics	Defense / compensation
Movement	Interruption of land access	Sustained transport-aircraft operations
Fortifications	Control of crossing points	Protected airports and facilities
Power	Political pressure on an enclosed city	Concentration of logistical resources on one function
Communication	Communications necessary to maintain the blockade	Flight planning, weather and air traffic control

Networks and logistics. An alternative transport network takes over some functions of the interrupted network; it depends on communications, energy, aircraft and human commitment.

Interpretation of the model. Functional defense. The ability to reconfigure transport maintains supplies without destroying the adversary's apparatus.

CROSS-CUTTING LESSONS FOR THE MODEL

Mode / logic	Often decisive strength	Vulnerability highlighted
Plunder / raid	Mobility supported by ports and refuges	Dependence on bases and access to resources
Agricultural / invasion	Productive land, fortifications and local supply	Scorched earth, lost harvests, overextension
Industrial / expansion	Power and mobile concentration	Resource consumption, attrition, support
Cybernetic / network	Communications and controls of material networks	Regulatory failures, shared dependencies, social refusal

Three necessary clarifications

1. Communication does not mean control. Communication enables information transmission; control also involves the capacity to decide, regulate and enforce. Every material network may have its own control network.

2. Distribution does not mean absence of concentration. An army may be distributed across a theater and concentrated in a battle; likewise, concentrated computing centers may organize globally distributed activities.

3. Military victory does not mean transformation of the mode of production. The cases studied illustrate combinations of warfare; they do not demonstrate the superiority of one economic mode over another.

Documentary references for further study

• Royal Air Force Museum, “How Radar Works” and “The Dowding System” (1940).
• Musée de l’Armée, educational dossier on the French campaign, 1939–1945.
• National Army Museum, “Defeat in the West, 1940.”
• U.S. Army Center of Military History, Deepening Involvement, 1945–1965, chapter on Điện Biên Phủ.
• Bảo tàng Chiến thắng Điện Biên Phủ (Điện Biên Phủ Victory Museum), information on logistical support.
• For other cases: comparative historical studies on Viking raids, Mongol campaigns, Đại Việt, Adwa, 1812 and Kursk; interpretations of the model must be distinguished from documented facts.

III. LESSONS FROM WORLD HISTORY

The same logic can succeed or fail depending on networks, logistics, information and the participation of populations.

11. From mobile forces to fortresses

Mongols, thirteenth century

Mounted forces and separate columns combined movement, reconnaissance and temporary concentration. Imperial relays connected vast territories. The entire Mongol economy should not be equated with plunder alone.

Vikings and the Mediterranean world

Maritime raids relied on winter camps, ports and trade routes. North African privateers operated from permanent towns: mobile plunder and fixed bases are not contradictory.

Rome and ancient Africa

Mobile legions built camps; roads, ports, fortresses and reserves made it possible to maintain territorial and fiscal authority.

Chola, South India, eleventh century

Naval expeditions illustrate mobile power projection supported by ports, resources and commercial networks. Warfare, trade and administration were intertwined.

African empires: Mali, Songhai, Asante

Defending routes, agricultural resources and commercial movements required arrangements varying between regions: cavalry, fortified places, armies and information relays.

Incas and the Andes

Roads, relays and depots illustrate the importance of a transport and communication system within a vast territorial empire.

12. Three key moments: 1812, 1940, 1943

Russia, 1812 — Scorched earth and stretched networks

Russian retreat, the denial of food and fodder, distances and difficulties keeping convoys moving stretch Napoleon's communications and logistics. A powerful army becomes increasingly unsustainable as its distance from depots grows. The catastrophe also results from battles, disease and weather conditions: scorched earth alone does not explain it.

France, 1940 — Mobile concentration

The German army concentrates armored units and then moves them rapidly, particularly through the Ardennes. Concentration is therefore not immobility: it is power capable of moving. Allied forces possess substantial resources, but cannot always assemble them quickly enough against the breakthrough.

Kursk, 1943 — Depth and reserves

Soviet defense combines prepared positions, successive echelons and mobile reserves. It shows how fortifications can absorb a concentrated mechanized attack and prepare to regain the initiative. Conditions changed between the German success of 1940 and the failure of the 1943 offensive.

13. Successful defenses: varied examples

Marathon, 490 BCE

Powerful infantry uses terrain and tactical action to defend a city.

Constantinople, 717–718

Walls, navy and the besiegers' supply difficulties combine.

Đại Việt against the Mongols, thirteenth century

Withdrawal, preservation of forces, river mastery and temporary concentration enable resistance to invasions.

Battle of Britain, 1940

Radars, observers, command and mobile squadrons form networked defense before the digital era.

Điện Biên Phủ, 1954

Networks of porters, bicycles, roads and supplies sustain the siege in difficult terrain.

Berlin, 1948–1949

The airlift illustrates the substitution of one logistical network for another.

14. Agricultural warfare can destroy its own resource

Destroying harvests, denying fodder, devastating irrigation systems or forcing populations to move can neutralize an agricultural productive base. The contradiction runs deep: conquering land while devastating it may deprive the conqueror of the wealth they sought to control. Scorched earth also reappears in industrial wars.

IV. THE CYBERNETIC MODE: A NETWORK OF NETWORKS

A collection of material networks, each possessing its control functions, integrated without necessarily having a single center.

15. Networks are all material and interdependent

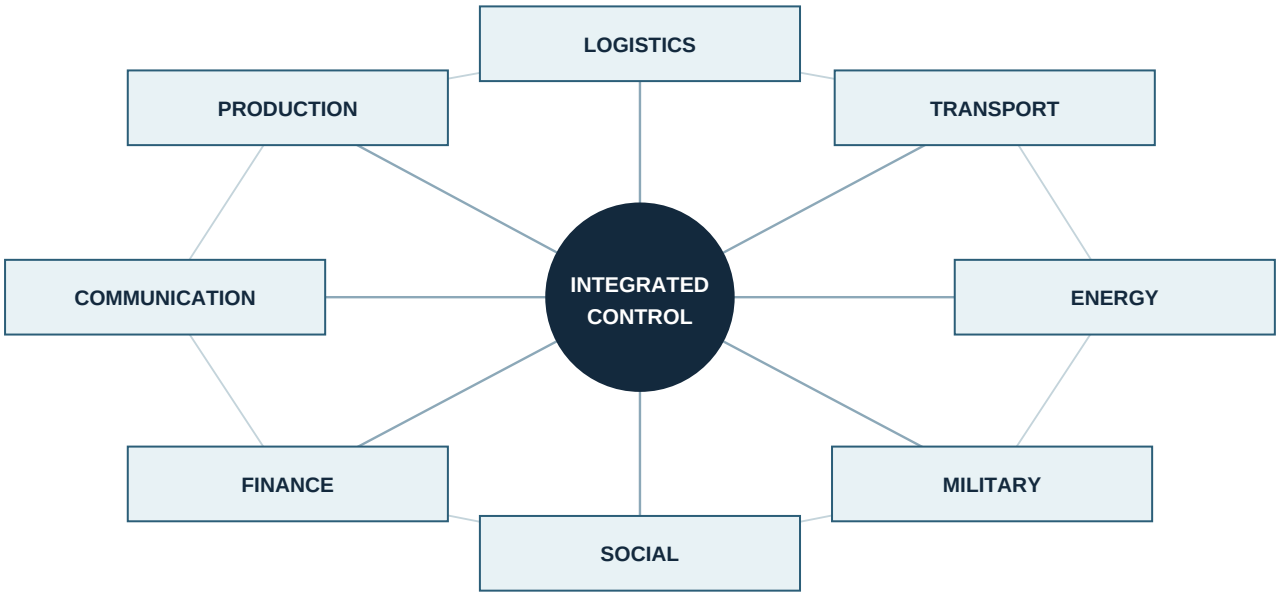
PRODUCTION	LOGISTICS	TRANSPORT	ENERGY
COMMUNICATION	INTEGRATED CONTROL	MILITARY	SOCIAL / FINANCE

Energy, transport, logistics, production, communications, finance, the military and social relations form networks. None is a mere external auxiliary to the digital sphere. Energy networks enable facilities to operate; transport carries components and personnel; information systems direct flows; workers ensure operation, maintenance and social reproduction.

16. Every material network has controls

Network	Control and regulation functions
Electricity	Balancing supply and demand, voltage, frequency, protective systems
Rail transport	Signaling, switches, traffic regulation
Logistics	Stock allocation, orders, replenishment
Production	Automation, supervision, planning and quality
Communications	Routing, traffic management, authentication and monitoring
Military	Intelligence, decisions, coordination and command
Finance	Payment, settlement, control and risk management

Integrated control: a network of material networks



Without essential regulatory functions, an interconnected electricity network cannot remain stable even if its lines and power plants are intact. However, a distinction must be made between the loss of central supervision and the loss of all local automation, protective devices and controls.

17. From local controls to global integration

MATERIAL NETWORKS → LOCAL CONTROLS → COORDINATION BETWEEN NETWORKS → SOCIAL DOMINATION

Control networks exchange information with one another. Production depends on logistics; logistics in turn depends on transport, energy and payments. We must not postulate a global command center: integration may emerge from transactions, interfaces, standards, owners and partially competing regulatory mechanisms.

18. Strengths of the network of networks

Coordination makes collective power possible without assembling every resource in one place. Distribution can improve resilience, diverse routes offer alternatives, and local regulation can preserve certain functions during disruption. These strengths nevertheless depend on genuine autonomy, not simply on multiplying components subject to the same control.

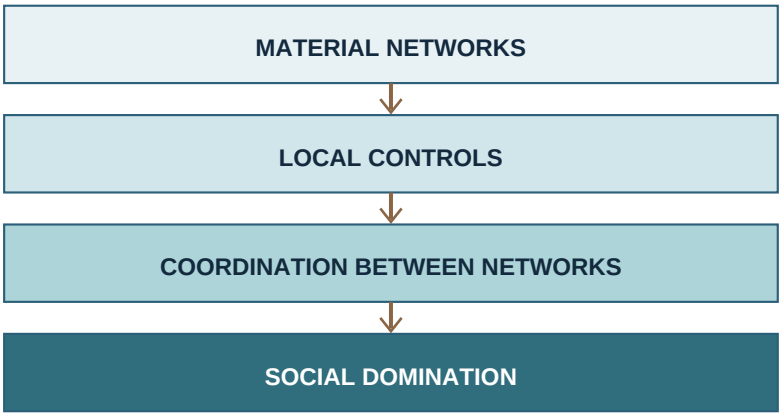
19. Vulnerabilities: cascades and control

Common failures can spread from one network to another: an electricity outage disrupts computing, communications, ports and production; a control-system failure can render intact installations unusable. But not all failures cause a general collapse: alternatives, inventories and local operations sometimes allow continuity.

20. Major global networks: cables and satellites

Undersea fiber-optic cables provide most intercontinental data-carrying capacity. Satellites provide mobility, coverage and certain redundancies, without entirely replacing fiber capacity. Ground stations, terminals and electricity networks remain essential. Land routes, cables, satellites and data centers must be analyzed as complementary networks rather than as dependencies on one place.

Cable cuts in West Africa in 2024 and the communications interruption in Tonga after the 2022 eruption show the material risks; rerouting and satellite links illustrate compensating capabilities. Baltic undersea infrastructure is subject to increased protection efforts.



21. Logistics and transport are networks too

Ports, ships, railways, roads, warehouses, pipelines, electricity networks and aircraft form an ensemble of physical flows. The Suez Canal, Panama, Malacca and Hormuz illustrate the potential global effects of geographically localized disruptions. Logistics is not merely transport: it includes stocks, allocations, maintenance, delays and replacement capacities.

V. FROM INDUSTRIAL WARFARE TO CYBERNETIC WARFARE

The distinction concerns the dominant object of action, not an absolute separation of techniques.

22. Destroying material assets or disrupting operations

Object	Characteristic industrial logic	Hypothetical cybernetic logic
Factory	Destroy buildings and machines	Disorganize management and coordination
Electricity	Damage generation or transmission	Disrupt essential regulatory functions
Army	Destroy forces and their equipment	Break their collective organization
Transport	Destroy routes, vehicles and depots	Disorganize traffic and allocations
Finance	Reduce economic resources	Disrupt access, settlement and flow control

Industrial warfare already included communication sabotage and supply disruption. Contemporary warfare continues to destroy infrastructure physically. Our distinction therefore concerns a dominant tendency: in a properly cybernetic war, mastering or disrupting control mechanisms becomes a major objective, potentially without destroying facilities.

23. Destroying, interrupting or taking control

Three outcomes must remain distinct: destruction of capabilities; functional interruption of materially existing elements; and subordination of installations and relations placed under another authority. For a ruling class wishing to preserve production, controlling intact infrastructure may be more attractive than destroying it.

24. Ukraine and Iran: pre-cybernetic wars, according to our hypothesis

These conflicts now combine digital networks with destruction, coercion, territorial defense and attrition of material resources. The war in Ukraine combines drones, fortifications, mass production, artillery, satellite networks and logistics. Clashes involving Iran combine mountainous geography, long-range strike capabilities, regional power and exchange infrastructure around the Gulf.

Within our framework, these conflicts remain mainly pre-cybernetic if material destruction and territorial stakes continue to determine other objectives. The presence of digital technologies is insufficient to establish a new mode of warfare. This classification remains an interpretation, not a scientific consensus.

25. Global systems that have remained relatively preserved

Direct destruction of satellites in orbit during conflicts has remained rare compared with jamming, disruptions and cyberattacks. Major global cables have not been subjected to systematic annihilation, whereas energy networks and other terrestrial infrastructures have suffered heavy destruction. This asymmetry may be compatible with common structural economic interests among rival actors; by itself it is insufficient to demonstrate the cause.

26. Additional comparative studies

Sudan combines territorial control, mobile forces, external support and logistical networks; Myanmar highlights the role of telecommunications control in the conflict between a military regime and its opponents; eastern DRC combines resources, roads, borders and armed groups; Gaza reveals the gap between destructive power, civilian protection and the ability to stabilize a political order. None of these cases can be reduced to a single mode.

VI. CLASSES, PROLETARIAT AND IDEOLOGY

The power of networks cannot be explained without social control, labor and inherited representations.

27. A ruling class tends to extend its control

Each ruling class seeks to reproduce the conditions of its existence and control the essential elements of the mode from which it derives its power. This convergence does not require shared consciousness, a conspiracy or a single general staff: it may arise from structurally similar positions and interests, including among competing companies and states.

Mode	Preferred control	Condition of reproduction
Plunder	Access to wealth and predation	Forces capable of appropriation
Agricultural	Land, harvests, labor and exactions	Productive territories
Industrial	Machines, wage labor, capital	Production and markets
Cybernetic	Material networks, controls, interactions	Participation and coordinated operation

28. A social war at the heart of the cybernetic mode: hypothesis

The hypothesis discussed proposes that the principal antagonism of the cybernetic mode opposes a transnational ruling class to its integral proletariat: bodies, productive intelligence, attention, passions and social relations. Networks may be preserved because they sustain exploitation and economic life, whereas surveillance, filtering and behavioral control are instruments of internal domination. However, a concerted global intention to eliminate populations must not be inferred without evidence.

29. Accepting, enduring or refusing war

Communications, transport, energy and armed forces do not function without populations. Commitment to territorial defense, acceptance of a government's objectives and participation under coercion are three distinct realities. Russia in 1917, the world wars, American opposition to the Vietnam War and contemporary resistance show how social mobilization can durably reinforce or limit military power.

30. The ideological lag of ruling classes

Older values survive the partial replacement of their productive basis. Landed nobility retains a warrior ideal, for which hunting may be a symbolic substitute. The industrial bourgeoisie willingly seeks signs of landed prestige. The cybernetic ruling class may continue to value capital accumulation, land ownership and the conqueror's imaginary.

Ruler	Specific power	Inherited prestige
Agricultural noble	Land, rent, exactions	Warrior values, hunting
Industrial bourgeois	Capital and factory	Estate, castle, land
Cybernetic logician	Organization of networks and interactions	Capitalist, proprietor, warrior

“Logician” here designates a theoretical figure of the network organizer, not a defined profession. Such a leader may simultaneously think of themselves as a warrior, landowner and capitalist; this is not a universal psychological characteristic.

31. Work ideology in the face of automation

The industrial legacy often identifies social usefulness with employment. Yet automation can make certain tasks less necessary without making human beings useless. Populations participate in consumption, maintenance, social reproduction, interactions and political life. The cybernetic ruler may pursue automation while retaining the moral norms of industrial work. This discrepancy may encourage exclusion, suspicion toward inactivity and control policies.

32. Contemporary figures and trajectories

Several profiles illuminate, without proving by themselves, the historical accumulation of prestige forms. Musk combines industry, satellite telecommunications and the imagery of conquest; Zuckerberg combines platforms and large-scale landownership; Jensen Huang embodies the material industry of computing; Mukesh Ambani illustrates the integration of energy, telecommunications and services; Zhang Yiming represents wealth tied to algorithmic attention; MrBeast shows how an audience can become the starting point for material enterprises.

Two trajectories emerge: from industry, capital and energy toward networks; or from platforms and attention toward investment and property. These examples allow observation of power structures and public symbols, not proof of each individual's personal motivations.

33. China and the United States: two political configurations

In China, large private platforms operate within a framework of Party-state control, which retains powerful regulatory and political means. Zhang Yiming and ByteDance make it possible to study significant algorithmic power without autonomous political sovereignty. In the United States, major digital companies have different degrees of influence and bargaining power vis-à-vis the state. This contrast must not obscure industrial and financial interdependencies or differences within each country.

Hypothesis: China may represent a particularly integrated national form of the cybernetic mode, whereas the United States more visibly exhibits a competitive relationship between digital companies and political powers.

VII. SYNTHESIS AND SCOPE

What the historical model proposes, and the checks that remain necessary.

34. Overview table

Dimension	Plunder	Agricultural	Industrial	Cybernetic
Geography	Nomadic	Fixed	Concentrated	Distributed
War	Raid	Invasion	Expansion	Network
Function	Movement	Fortifications	Power	Control / communication
Characteristic target	Wealth	Land and harvests	Material means	Controls and information
Vulnerability	Access to loot	Land / subsistence	Production / logistics	Interdependence of controls
Power	Predation	Landownership	Industrial capital	Network organization

35. Five conclusions

1. The four geographies, military functions and strategies are available in every mode; their hierarchy changes.

2. All power depends on transport, communication and energy networks and on human relations; what is new is their integration.

Historical and documentary references for further study

• UNESCO — Rice Terraces of the Philippine Cordilleras; Causses and Cévennes; transhumance.
• Historic England — Manchester, industry, warehouses and urban transformations.
• US National Park Service / military museums — the campaigns of 1812 and 1940, Battle of Britain and world war.
• International Telecommunication Union (ITU) — undersea cable resilience and connectivity.
• International Cable Protection Committee — cables and protection of undersea infrastructure.
• UNCTAD — Review of Maritime Transport; global shipping flows.
• World Bank — Logistics Performance Index and logistical networks.
• ICRC — protection of civilians and essential infrastructure in armed conflict.
• Public reports on digital rights — surveillance, Internet restrictions and social control.
• Thorstein Veblen, The Theory of the Leisure Class (1899) — predatory prestige and survivals of status.

Editorial note: Contemporary examples and class identifications are presented as observations or hypotheses as appropriate. Rapid events in 2026 require independent documentary verification before any academic or public use.

VIII. CLASSIFYING WARS BY TYPE

The classification distinguishes the dominant purpose of a war from the techniques employed. It describes neither closed historical eras nor peoples reduced to a single mode of production. A war may combine all four logics, but one may orient the others.

Type	Dominant purpose	Preferred target
Plunder	Appropriate resources	Booty, reserves, captives and circuits of exaction
Agricultural	Conquer, preserve or devastate the productive territorial base	Land, harvests, herds, granaries and irrigation
Industrial	Reduce the adversary's material power	Armies, factories, machines, production infrastructure
Cybernetic	Master or disrupt networked operations	Information, links, control and regulation of material networks

One rule: identify what determines the desired victory

A modern fleet may conduct a raid for plunder; an industrial army may carry out a land conquest; a cyber operation may serve a conventional war of conquest. The criterion is therefore neither the type of weapon nor the date, but the purpose that organizes the action.

Four logics, four contradictions

Plunder: rapid appropriation depends on bases, routes and resources produced by others. Mobility may clash with the need for a fixed base.

Agricultural: devastation deprives the adversary of resources, but risks destroying the lands the conqueror wishes to exploit. Scorched earth in the Russian campaign of 1812 notably illustrates defense through the denial of resources and the stretching of support lines, without reducing the entire campaign to agricultural warfare.

Industrial: destruction may neutralize material power but does not guarantee political submission. Production and logistical networks may be rebuilt.

Cybernetic: an intact material network may become unusable if its indispensable control functions are lost; nevertheless, a local relay or another path may preserve certain services. Mastering a network and destroying it are not equivalent.

IX. HISTORICAL ATLAS: WARS BETWEEN STATES AND CLASS WARS

These classifications are interpretive. Revolutionary war is defined primarily by its protagonists and class relations; it may use all available technical forms. This is an axis complementary to the four economic types.

Conflict or campaign	Proposed dominant type	Revealing combinations
Sicilian slave revolts and Spartacus, 135–71 BCE	Slave revolution	Slaves against masters' property; mobility, recruitment, repression
Viking raids, 8th–11th centuries	Plunder	Maritime movement; fixed bases; circulation of booty
Norman Conquest, 1066	Territorial-agricultural	Invasion, redistribution of land and government
Mongol conquests, 13th century	Mixed: predation, conquest and tribute	Mobile cavalry, sieges, relays and administration
Chola expeditions, 11th century	Mixed: territorial and maritime control	Fleets, ports, trade, regional influence
Russia, 1812	Mixed: imperial, territorial and logistical	Scorched earth, retreat, stretched support networks
Haitian Revolution, 1791–1804	Revolutionary and anti-slavery	From enslaved insurgents to independence; defeat of colonial power
Boer War, 1899–1902	Industrial with agricultural devastation	Destruction of farms, territorial control and coercion
First World War	Industrial and class conflict	Worker and peasant mobilization, attrition warfare; mutinies, strikes and revolutions
Second World War	Pre-cybernetic: networked industrial warfare	Mass destruction, integrated production, radar, radio, command, logistics
Điện Biên Phủ, 1954	Industrial and territorial	Siege, fortifications, logistics using porters and bicycles
Russian Revolutions, 1917–1922	Revolutionary and civil war	Workers, soldiers, peasants, armies and competing authorities
Chinese Revolution, 1927–1949	Revolutionary, peasant and territorial	Rural bases, protracted wars, war against Japan
Vietnam War	Mixed: industrial and territorial	Guerrilla warfare, logistical networks, air power
Russia–Ukraine, since 2022	Highly digitized industrial warfare, termed pre-cybernetic	Territories, strikes, drones, energy, communications

Conflict or campaign	Proposed dominant type	Revealing combinations
Conflicts involving Iran in 2026	To be specified according to the operation	Geographic fortress, coercion, energy transport
KA-SAT disruption, 2022	Functional cybernetic operation	Satellite service affected without destruction of the satellite

The difference between war and operation

A cybernetic operation does not by itself require an entire war to be classified as cybernetic. Thus the disruption of a communications service may contribute to a campaign whose principal aims remain occupation, attrition or industrial destruction.

X. ATTACK, DEFENSE AND SOCIAL RELATIONS

The classification remains compatible with the four functions.

Organization	Function	Offensive and defensive use

Defense depends on the proletariat

The ability to sustain war presupposes acceptance, resignation or coercion imposed on populations who fight, work, supply and maintain networks. We must distinguish defending society, agreeing to fight and endorsing the ruling class's objectives.

External war and class conflict

Our hypothesis distinguishes rivalries between powers — many of which remain territorial and industrial — from social conflict over ownership, access and control of networks. Convergence among ruling-class interests may be structural without being conscious or coordinated. By itself it does not demonstrate a single global strategy.

Scope and limits of the typology

This classification is an analytical tool, not a proven historical law. The examples do not demonstrate a universal succession. Documented practices must remain distinct from the hypothesis that warfare under the cybernetic mode would tend to substitute functional mastery for material destruction.

Further reading: military histories of Viking raids and Mongol conquests; research on the Russian campaign of 1812; archives on 1940, Kursk and Điện Biên Phủ; Viasat's public communication on KA-SAT (2022).

XI. CLASS WARS AND REVOLUTIONS

Wars are not confined to competition among territorial ruling classes. They may directly pit dominated groups against the owners, administrations or states that organize their exploitation. “Revolutionary” is not a fifth technical mode: it indicates the direction of social conflict. An uprising may mobilize raiding, territorial defense, industrial power and communications.

Social relation	Form of conflict	Stake
Slaves / masters	Slave uprising	Freedom, ownership of persons, coercion
Peasants / landholders	Peasant war and land uprising	Rent, land and obligations
Workers / owners and states	Uprising, strikes, mutinies, civil war	Property, labor and political power
Cybernetic proletariat / rulers	Potential social conflict within networks	Access, control, data, income, autonomy

Spartacus and the slave wars: an army born of domination

The Sicilian slave revolts (second century BCE) and the revolt of Spartacus (73–71 BCE) directly challenge the ownership of human beings. The insurgents, initially few in number, assemble and move, recruit among slaves and rural populations, then confront the Roman legions. Movement and communication between groups enable temporary power. The Republic restores its domination through particularly brutal repression. This is not a war “of plunder” in our typology: it is above all a war against the slaveholding order.

Haiti, 1791–1804: the victorious uprising of enslaved people

In Saint-Domingue, the plantation revolt develops into a struggle for emancipation and a war of independence. It confronts several European powers, reorganizes fighting forces and upends property relations. It shows that a dominated class can not only resist but also overthrow a territorial slaveholding order and found a new state.

Paris Commune, 1871: the struggle for urban power

The Commune emerges after the French defeat by Prussia, in an armed and socially polarized capital. External war gives way to an internal confrontation over sovereignty, property and the government of the city. Its suppression during Bloody Week recalls that a ruling class can deploy its forces against an internal uprising. The Communards held diverse views: this conflict cannot be reduced to a single revolutionary doctrine.

XII. 1914–1918: MOBILIZATION, SACRIFICE AND REFUSAL

Our interpretation of the First World War cannot be limited to a confrontation between industrial powers. It also involves the relationship between ruling classes and their working populations. States recruit workers, peasants and employees on a massive scale; the popular classes bear an immense share of fighting, deprivation and productive effort.

Established facts: mass mobilization and losses

Library of Congress archives record tens of millions mobilized and millions dead and wounded among the principal belligerents. These losses attest to mass human sacrifice. They do not, however, demonstrate that an international ruling class consciously launched the war to exterminate its working-class proletariat. This latter proposition is a political interpretation requiring proof, not an established historical objective.

A structural interpretation, distinct from coordinated intention

War can be studied as a mechanism of massive destruction of labor forces, discipline of populations and defense of imperial interests, without supposing a collective extermination plan. Interstate

The breakdown of obedience: Russia in 1917, Germany in 1918

In Russia, exhaustion from war contributes to the February and October revolutions of 1917. Soldiers, workers and peasants intervene in a crisis of command, state and property. In Germany, sailors' mutinies at Kiel, joined by workers and soldiers, contribute to the collapse of the monarchy in November 1918. Both cases reveal the limit of military mobilization: the human forces needed for war may turn against the authorities that organize it.

Dimension	Industrial warfare	Revolutionary rupture
Forces	Concentrated and mobilized armies	Refusal to obey, mutinies, units breaking away
Production	Factories and labor mobilized	Strikes, councils and demands over property
Communication	Hierarchical orders, press and telecommunications	Spread of slogans, links between soldiers and civilians
Power	Preservation of the state at war	Challenges to authority and social relations

XIII. CHINA, RUSSIA AND REVOLUTIONS AROUND THE WORLD

The Chinese Revolution, 1927–1949: peasant war and struggle for the state

The Chinese revolutionary conflict relies heavily on the countryside, rural bases, peasant mobilization, local communication networks and protracted warfare. It also takes place against the background of Japanese aggression and a complex civil war. The Communist victory of 1949 combines transformations in ownership, territorial conquest and the construction of a new state power. It would be wrong to classify it simply as agricultural or industrial: its purpose is also revolutionary.

Taiping Rebellion, China, 1850–1864

This enormous civil war against the Qing combines religious revolt, social upheavals, occupation of territories, taxation and large armies. It is a reminder that a peasant uprising can become a territorial regime and a mass war without necessarily being a proletarian revolution in the twentieth-century sense.

Russia after 1917: civil war and reconstruction of power

After the revolutions of 1917, the civil war brings together Red and White forces, foreign interventions, control of railways, urban supply and peasant mobilization. The conflict no longer concerns only the sovereignty of a territory: it also opposes competing projects of ownership, institutions and the organization of labor.

Other forms around the world

Mexico (1910–1920): land claims, peasant armies, political revolution and reconstruction of the state. Algeria (1954–1962): anticolonial war combining underground organization, movement, repression and the struggle for independence. Vietnam (twentieth century): anticolonial and reunification wars in which guerrilla warfare, control of the countryside, logistical networks and industrial weaponry interact. These situations differ from slave uprisings but allow us to observe transitions among class conflicts, national struggles and wars between states.

Synthesis: two cross-cutting classifications

Axis	What it classifies	Example
Mode of warfare	Appropriation, land, material destruction, network mastery	Second World War: pre-cybernetic in our framework

Class relationship	Rulers against rulers; dominated against rulers; mixed wars	Spartacus: slave revolt; 1917: revolutionary
Operational forms	Movement, fortifications, power, communication	Revolutionary wars also using networks and logistics

Principle of interpretation

War may ensure the reproduction of domination, competition between ruling fractions, or its challenge by the dominated. Categories overlap: the Second World War is termed

pre-cybernetic in our hypothesis because of the importance of command networks and industrial warfare; this does not negate its territorial objectives or the genocides perpetrated by the Nazi regime. The theoretical label must never obscure the specific character of historical violence.

Reference sources: Oxford Classical Dictionary, “Spartacus” (2016); Larousse, “Spartacus”; Slavery and Remembrance, “Haitian Revolution”; Library of Congress, “Mobilized Strength and Casualty Losses”; United States Holocaust Memorial Museum, “Russian Revolution 1917” and “Mutiny of German Sailors in Kiel”; German History in Documents and Images, “The Spread of the 1918 Revolution”; Encyclopaedia Britannica, “Taiping Rebellion”.