Welcome to True Story, the historical turn-based game.

Here, you get a tribe of Neolithic farmers. They just settled down and agreed to pay part of their harvest to you, their ruler, so that you could organise a defence against hunters-gatherers still roaming around.

Note that you cannot directly order your people what to do. They are looking for economic opportunities on their own. Your task is to make sure they have enough resources for their enterprises, and have the infrastructure they need.

At the beginning of the game, your responsibility as a ruler is to protect your people from raids of nomadic tribes, and expand the land your people can plough. To make land available for your people, you need to clean it from savages.

Later, you will be able to affect other sides of your people’s life, - you can improve the transport infrastructure increasing the effective radius of your town centres and their trade capabilities. You will build your nation’s trade strategy through careful selection of trade partners, - those who will allow your industries to grow their exports. You will be able to improve your people’s health increasing natural growth. You will be able to improve their educational level, improving the speed they are progressing in technology and competitiveness of their high-tech goods. You can even decide to directly control all the economic life via planned economy policies.

There are number of possible victories. You can defeat every other nation in a military way. You can be the first nation who reached demi-god powers through technology (eternal life, unlimited energy supply and molecular manipulation). You can be so popular and wise that people of the world would voluntarily agree on your candidature as a leader of united humankind.

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**Settlement Overview**

Each player starts with a single Neolithic settlement. You can establish (or conquer) additional settlements later. Every settlement originally has 3 sectors, - agricultural (represented by farmers), light industrial (represented by crafters), and construction (builders).

Each sector has some income and expenses. Income is limited on demand on sector’s product; expenses are on number of workers’ in the sector, their salary expectations, and operational costs of assets used (even stone tools need replacement time to time, you know). Difference is sector’s profit (or loss). In case of profit, sector generate some capital to invest, in case of loss, - shrinks. Capital accumulated by settlement can be used to expand sectors that have uncovered demand.

Each settlement has a list of hexes whose inhabitants shop there, and where they deliver resources extracted (food, ores, fuel etc.)

Additional sources of capital are:

1) People’s savings, - difference between salaries (depending on tools used in industry), and employees spending (depending on their wealth level);

2) Income of unemployed people. They still can earn something temporarily return to hunter-gatherer lifestyle, given that there is wild game available.

3) Bank capital. If used, creates a bank-owned share in the sector. Part (half?) of profit from this share goes to bank sector, instead of the borrowing (and expanding) one.

Total sectors’ list is:

Agricultural (farms), - makes sure your people don’t starve;

Extracting (mines, lumber mills), - supplies industrial and building enterprises’ with resources needed;

Light Industry (crafters workshops, then factories), - produces goods needed by your people, and weapons ordered by the state. Has competitive power, depending on tools’ effectiveness and settlement’s wealth level. Vulnerable to foreign imports, but can benefit from exports;

Metallurgy, - processes ores to metals, that can be used to produce tools, machinery and weapons;

Heavy industry (smiths, machine-building factories), - supplies other sectors with assets. Not affected explicitly by settlement’s population demand, only by expansions of businesses in other sectors. Affected by imports/exports; limited by resources delivered by extracting sector.

High-tech (high-tech factories), - similar to light industry, but competitive power strongly depends on educational level of the settlement;

Energy (electrical plants), - merge into heavy? Maybe not, since brick-n-mortar;

Construction (builders’ brigades), - allows people to upgrade their properties, and implements state’s building and infrastructure projects;

Trade (trade companies), - move goods between settlements having big enough difference in competitive power; demand is defined by volume of trade routes

Banking (banks), - speed up expansions of other sectors, providing capital they need;

Services (service professionals), - no benefits? Or help to accumulate people wealth, due to time saved for main occupation? Required only in settlements with high wealth level.

Also, there are state-owned sectors:

Military service (soldiers), - can protect the settlement, and expand its borders;

Justice (policemen), - tax the settlement, suppress resistance (, lower crime rate?);

Public health (medics), - increasing natural growth and adults/children ratio via longer life (more adults mean more workers)

Education (teachers), - increasing knowledge product of daily activities (leading to tech progress), and competitiveness of high-tech goods

**Sectors’ growth**

Your people can establish enterprises when they see opportunities for it. To make enterprise possible, 3 conditions need to be in place:

1) Resource-based enterprises (like farms and mines), needs resources (like arable land or ore deposits).

2) All enterprises need uncovered demand on their products to be established.

3) All enterprises need some initial investment to be established, - your people need to accumulate capital first before risk it.

Once established, enterprise is included into its sector, increasing either its profit (in case of sufficient demand on its products) or loss. Depending on its asset, it also adds vacancies into sector, so that new citizens of the village would consider them when select their career. Also, they may have other effects. E.g. every town needs to have sufficient supply of food, otherwise people will starve. More crafters in the town will allow you to produce more weapons, etc.

Some technologies allow enterprises to expand, as far as resources and workers are available. This way sector can grow without significant investments. Enterprise can upgrade its equipment after technology advances or new resources became available. Enterprise can request state dotation to do it, to keep workplaces for settlement.

Workers on the enterprise get wage depending on what is effectiveness of their labour, i.e. on enterprise’s asset, and on their wealth level.

From the beginning, your people can establish 3 types of enterprises:

1) Farms. They produce food, and need arable land to expand

2) Crafter workshops. They produce goods for your people, and some military equipment (bows, shields).

3) Builder brigades. They build houses for people that can pay for it, help to establish new enterprises and fulfil state orders on structures like barracks or state granary.

Later, technologies will provide your people with other options. Not all assets are available to all types of enterprises, - e.g. steam-powered machinery can be purchased by factories, but not by crafter’s workshops.

Originally, all enterprises can expand with stone tools, that doesn’t require any devoted industry to produce. Since the Bronze Age all the tools are produced by heavy-industry enterprises, - smiths, and then machine-building factories.

Possible enterprise’s types are:

1) Farms (requires arable land);

2) Crafter workshops;

~~2.6) Smiths (requires ore and fuel supply); - ? Maybe, give their products to crafters?~~

3) Builders’ brigades (requires timber supply);

4) Mines (requires mineral deposits);

5) Lumber mills (requires woodland);

5) Trade companies (requires established trade relationships, sea/road infrastructure);

6) Watermills (require running water);

7) Factories (require machinery supply, power);

7.1) Furnaces (produces metals from ores);

8) Machine-building factories (assets’ producers);

9) Electric plants;

10) Small service enterprises;

11) Banks;

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**Investment capital**

Enterprises can be established and expanded only when there is certain amount of capital accumulated in the settlement. Accumulation happens if enterprise’s sector is profitable; otherwise capital decreases, and can lead to closure of enterprises or job cuts. Note that there is no internal competition in the model, so all enterprises of a given type works together, and their profits sum up.

Also, most profitable enterprise type receives additional investment from people’s savings, - difference between people’s income and spending.

The algorithm is as follows:

1. If there is enough capital to expand the enterprise with the best possible assets, and it didn’t reach maximum size yet, enterprise expands
2. If after (1) there is still enough capital to upgrade assets on existing enterprise, and better assets are available, do upgrade;
3. If after (1) and (2) there are no possibilities to expand or upgrade, but still some capital to invest, establish new enterprises (given that there are resources available and uncovered demand on products)
4. The leftovers can be saved for next financial year

Depending on number of new enterprises, upgrades and expansions, we calculate demand on tools/machinery for a next year

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**Resources and local logistics**

Each town has list of hexes in its economic zone. Every hex has some resources to extract or use. Some, like arable land or wood land, can be used indefinitely (unless over-used and exhausted). Others, like ore deposits or fossil fuels, can be fully extracted, and you will need to find new sources, either on other sites or via deepening your mines.

Each resource has its own, unique set of possible uses.

Arable land is needed for agricultural enterprises, - farms, plantations, etc., which grow food and cash crops for our people. Food available sets a limit to the size of your population;

Wood is needed to upgrade your people’s properties, and in state structures;

Flynt, copper+tin+wood, iron+coal allow our people improve their tools, increasing effectiveness of their labour;

Wood and coal can be used to transform ores into metals;

Iron, copper, aluminium, titan, oil (for plastics) allow our people to create machinery that replaces tools in industrial enterprises in later stages of the game;

Running water, coal, oil, gas, uranium supply machinery in our enterprises with energy it needs to operate. In later stages, fuel resources cannot be consumed directly, but need electrical plant to power industrial assets.

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**Economic zone of control**

From the beginning, every town can establish control over the hexes neighbouring to it. Should you want to increase its reach, you’ll need to build a road to hex you interested in. More advanced roads will provide access to more remote areas. Roads are built by state, - road project costs your treasury certain amount of grain/money, and creates demand on building services.

Roads are:

1) Dirt road;

2) Brick road;

3) Railroad;

4) Asphalted road;

5) Pipeline;

6) Concrete road;

To take the hex under control, you need eliminate nomadic tribe that may use it as a hunting ground, and assign an army to patrol it. Note that to tax the hex your army strength need to match the population of the hex.

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Assets

Every enterprise, to be established needs to purchase an asset, - essentially, the tool that workers will use daily. In industrial enterprise it will be tools or machinery, in trade enterprises, - transport.

Every asset needs a crew to operate. First assets are tool sets, made of stone, - every of them, obviously, need just one worker. In later ages, each machinery piece needs certain number of workers.

Also, every asset have a price. When sector expands, it has to purchase it from settlement’s capital. In process, it increases demand on given type of assets (tools, ships, machinery etc.) When it shrinks, it can sell it, - price is added to its account.

Every asset has a list of resources it needs to be produced, except stone tools. If resources are not available, enterprise may go with whatever option it has.

Every enterprise tries to purchase best possible equipment. It may be something you cannot yet produce, but can import from the neighbour you are in contact with. Note that it will mean some of your capital will go to neighbour pocket, - you may want to avoid it. However, in some cases rapid modernization of your industries makes sense, even if it means toolmaking jobs went to your neighbour.

Latest industrial assets has educational requirements for workers.

Possible assets are (from worst to best):

**Industrial assets**

Stone tools (1 worker, no resources)

Flynt tools (1 worker, flint)

Bronze tools (1 worker, copper, tin, wood)

Iron tools (1 worker, iron, coal)

Watermill machinery (10 workers, iron, coal, wood)

Steam-powered machinery (25 workers, iron, coal, wood)

Electrical plant (50 workers, coal/oil/uranium/running water) – provides power to late-game factory assets

Electric-powered machinery (10 workers, iron, copper, power to supply. Worker needs school degree)

Robotic line (5 workers, iron, copper, aluminium, oil (plastic?), power to supply. Worker needs college degree)

AI Robotic line (1 worker, iron, copper, aluminium, oil (plastic?), power to supply. Worker needs university degree)

**Trade assets**

Canoe (1 worker, wood)

Wheeled cart (1 worker, wood) – do we need land trade assets? To replace with roads?

Galley (10 workers, wood, copper, tin)

Quadreme (25 workers, wood, iron)

Caravel (30 workers, wood, iron; workers need school grade)

Galleon (50 workers, wood, iron; workers need school grade)

Steamboat (25 workers, wood, iron, coal to supply; workers need college grade)

Diesel trade ship (30 workers, iron, copper, aluminium, oil to supply; workers need college grade)

AI trade ship (5 workers, iron, copper, aluminium, oil to supply; workers need university grade)

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Population and labour pool

Population increases each year by certain percent of existing population, as far as food supply is sufficient. Percent of increase depends on settlement public health, which depends on how crowded your town is and what sanitation infrastructure and policies are in place. New people distributed by wealth levels as per existing distribution, but one level lower. E.g. if your town has 30% house owners and 70% huts owners, youngsters will be on 30% huts owners, and on 70% homeless.

Each young person needs to make a career choice. They are distributed by the town’s sectors’ vacancies per ratio on uncovered demand.

Other way to increase labour pool is through assimilation of captives. Each time your army wins a battle some enemies are captured, and brought to your town.

Possible public health facilities are:

1) Graveyard;

2) Junk yard;

3) Healer;

4) Sewers;

5) Hospital (workers need university degree);

6) AI-powered medical facilities (workers need university degree);

Wealth levels

Your people accumulate wealth year after year if their income fully covers their expenses. Once their savings are big enough, they upgrading their dwellings, thus increasing their wealth level. Homeless people buy shaky huts providing basic shelter from rain, hut owners buying decently insulated houses, house owners may want to upgrade the property with basic plumbing once technology allows it etc.

Each wealth level has normal level of spending, - wealthier people tend to spend more. It benefits village economy, since local demand on goods increases, and your crafters have more work to do and be paid for. Also, wealthier people more tolerant to your government style, and usually you can impose higher taxes on them without raising protests.

But beware! Wealthier employees have higher expectations on salary, and this may negatively affect competitiveness of your goods should you establish a trade route with less prosperous settlement. Also, higher spending means their savings will accumulate slower, thus their progress in wealth level will slow down, and so will the amount of capital to invest into new enterprises.

Possible wealth levels are:

Homeless (food, goods)

Hut (food, goods);

House (food, goods);

House with sanitation facilities (food, goods);

Electrified house (food, goods, high-tech);

Smart house (food, goods, high-tech);

Weapons and Army

To protect and expand your lands you need an army. Every soldier in it should be supplied with a weapon from tribe’s armoury, and food sufficient for the length of the campaign. At the beginning, you don’t have professional soldiers, - you can get your fellow villagers to the army temporarily, and you need to pay them the expenses, from your own granary.

Weapons are with you until they’re broken though. You can place an order for weapons in your village, and grain you spent on it will increase your crafters’ income.

You can draft more people than you have weapons in time of need, but generally it is a bad idea: the weapons that your people will bring with them will be inferior to what your professional crafters can make.

Once you have an army, you can either leave army on guard, patrolling the lands you already own, set a campaign plan for it for the current year, or even take it under personal control.

Campaign plan is basically a sequence of hexes to attack. The following outcomes of every attack are possible:

1. If the army managed to defeat an enemy army patrolling the given piece of land with no town in it, or there were no defending army, you have right to tax the population of the hex. If it is within economic radius of one of your settlements, you can include the hex into its economic area. It would mean that hex’ inhabitants will do their shopping in your settlement, boosting its economy with resources and demand on settlement’s products. Also, your town-dwellers will have opportunity to establish resource-gathering enterprises there, if any resources are not in exploitation yet.
2. If your army attacked enemy town and won, the whole settlement became fully yours if you can suppress resistance of its civilians. If you cannot, the city cannot be taxed neither by you nor previous owner, but people there still doing their economic activities, - establish enterprises, accumulate wealth etc. You can sack them though.
3. If the hex attacked didn’t belong to any settled ethnos, your army may encounter nomadic tribe there. In this case battle also occurs, and if you succeeded you also can include the hex into economic zone of one of your settlements.
4. If your army lost, either in field or during the siege, and there are any survivors, it returns home. Campaign plan in this case interrupted. Part of army’s weaponry is lost during retreat, and becomes a trophy of your enemy

**Weaponry**

Every weapon has crew to operate it, attack power, and resources needed to produce it. Some weapons can be combined with additional equipment, - horses, shields etc.

Weapons available are:

1. Stone axe (1 soldier, no resources)
2. Bow (1 soldier, no resources)
3. Bronze spear (1 soldier, copper, tin, wood)
4. Iron sword (1 soldier, iron, wood)
5. Catapult (3 soldiers, iron, wood)
6. Crossbow (1 soldier, iron, wood)
7. Steel pike (1 soldier, iron, coal)
8. Arquebus ( 1 soldier, iron, coal, gunpowder to operate)
9. Bombard (3 soldiers, iron, coal, gunpowder to operate)
10. Rifle (1 soldier, iron, coal, gunpowder to operate. Requires factory to produce)
11. Machine gun (2 soldiers, iron, coal, gunpowder to operate. Requires factory to produce)
12. Mortar (2 soldiers, iron, coal, gunpowder to operate. Requires factory to produce)
13. Field cannon (3 soldiers, iron, coal, gunpowder to operate)
14. Biplane (2 soldiers, iron, wood, copper, gunpowder+oil to operate)
15. Bazooka (1 soldier, iron, aluminium, gunpowder. Requires factory to produce)
16. Assault rifle (1 soldier, iron, aluminium, gunpowder to operate. Requires factory to produce)
17. Tank (3 soldiers, iron, coal, gunpowder+oil to operate. Requires factory to produce)
18. Fighter plane
19. Modern tank (3 soldiers, iron, aluminium, titanium, gunpowder+oil to operate. Requires factory to produce)
20. Bomber
21. Jet fighter
22. Jet Bomber
23. Stealth bomber
24. Stealth fighter
25. Guided missile
26. ICBM

Additional equipment (prebuilt units only?)

1. Shield;
2. Horse;
3. Leather armour;
4. Bronze armour;
5. Chainmail;
6. Iron plate armour;
7. Mines;
8. Builder kit;
9. Propaganda papers;
10. Inflatable boat;
11. Kevlar armour;
12. Chemical ammunition;
13. Nuclear charge;
14. Satellite videophone;
15. Invisibility device;
16. Exoskeleton;

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Technologies

Your people, during any activity, accumulate experience in a certain branch of knowledge, - economy, military, industry etc. In the beginning of the game it is based purely on the amount of related events and people involved into production, battles, etc., but with invention of writing you will be able to leverage this outcome via education level of your people. It can be improved via educational facilities, built and maintained by state.

Once you’ve accumulated enough experience in certain branch, technology breakthrough happens. Note though that later technologies need some theoretical basis too, produced in a specialised scientific institutions. Also, technologies may have other technologies as prerequisites.

Technologies can open the following things:

1. New assets (tools/machinery/transport);
2. New enterprises’ types;
3. New wealth and educational levels;
4. New state-owned buildings/engineer projects;
5. New weaponry and equipment;
6. New concepts, - money, education, military training, religion, state-owned enterprises;
7. Other technologies to discover

All technologies demand certain amount of knowledge in certain branch accumulated.

Branch of knowledge are:

1. Nature (accumulated by farmers);
2. Industry (accumulated by light and heavy industry sectors);
3. Economics (accumulated by traders and bankers);
4. Warcraft (accumulated by army, boosted by wars);
5. Seafaring (accumulated by any ships, - military, trade, fishing etc.);
6. Science (accumulated by PhD, - participants of state-funded research projects);

**Trade**

Once rulers of neighbouring towns agreed to allow their traders on each other’s markets, trade route is established. Each town’s producing sectors has a competitive power, based on average effectiveness of inhabitants’ tools (the higher, the better), and average wealth of inhabitants (the lower, the better). Competitive powers compared, and amount of import for each town is calculated. Town with higher competitive power exports more than imports, and vice versa. Also, each town has trade competitiveness power, based on effectiveness of town’s transport (ships, etc.) which is compared to calculate how trade jobs are distributed between 2 towns.

In addition to goods’ exchange, towns can export resources (timber, bronze etc.), or assets (machinery, transport) if the destination lacks them. After invention of money food also can be traded. Before that, grain is used in role of money.

Trade can be established only if at least one of towns is in trade radius of another. Trade radius depends on level of transportation technology (naval trade assets available), and road type connecting 2 towns (if no sea way is available). If town 1 can reach town 2, but town 2 cannot reach town 1, all trade jobs are in town 1 (both for import and export); otherwise, trade competitiveness is compared. Note that if ships are not banned to export to town 2, trade radius is equal, since town 2 can import trade ships from town 1.

Trade is possible only if at least 1 of towns accepts merchants from another, - governments may ban the trade. If town 1 banned traders from town 2, its’ merchants still can enter town 2 until town 2 will ban them in retaliation.

Government of any town may impose taxes on all imports (or even exports). It has the following consequences:

-decreases the amount of trade;

- generate income for state imposed taxes;

-decrease loyalty to state imposed taxes in town-importer;

- Damages relationship between participating states;

Volume of trade route depends on:

- Difference in competitive power (more difference, more trade volume);

- Distance (bigger distance, - less volume)

- Ships/roads involved (better transport, - more volume)

-Type of supply (from least to most mobile: raw resources<food<processed resources<non-trade assets<goods<trade assets<high-tech goods)

-Taxes imposed on import by importer’s government

**Financial year processing**

1. Total amount of products sold calculated. It includes food, household goods (sum of expenses of all wealth levels in settlement), high-tech goods, and also tools and machinery (sum of replacements in all sectors and expansions happened last year). This amount decreased by amount of goods imported, and increased by amount exported.
2. Based on this, calculate balances of sectors.
3. Now we can forecast the sectors’ expansions on next year (it will affect heavy industry revenue in next year).

Every year every sector calculate its balance. Its revenue is equal to sum of all products sold in a current year. For every product, amount sold is demand on it per ratio to sector’s share in productiveness pool for a given product. Expenses includes employees’ wages (depending on their wealth level and effectiveness), and machinery’s operational costs. Difference, if positive, added to settlement’s capital pool and can be used to expand sectors. If the difference is negative, sector shrinks, - enterprises cut jobs, or, if already on minimal level, close.

Investments inside the sector distributed per ratio by uncovered demand on exact products.

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**Education**

Once writing is invented, you can provide your people with education. It speeds up accumulation of knowledge, competitiveness of your high-tech products and allow to fill the skill-demanding vacancies in your enterprises.

Every year, young people just turned into adults get the education as per ratio to educational facilities available.

Possible educational levels are:

1. Literacy (speeds up knowledge accumulation)
2. School grade (requires school facilities)
3. College
4. University
5. PhD (requires university, specialized state-funded program)

In late ages some technologies require devoted scientific project to be opened, - practical knowledge is just a prerequisite for them. If the project is funded by you, some people with university degrees leave their jobs and turns into PhD, accumulated research work needed for the project. Note that it may negatively affect industries where university graduates are in demand

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**State Building projects.**

State can initiate its own building projects:

1. Chief granary, - place where you store grain collected as taxes;
2. Barracks, - home of your soldiers;
3. Roads, - way to connect remote hexes to town centres;
4. City walls;
5. Public health facilities (see Population and labour pool);
6. Educational facilities (see education);

Also, after invention of planned economic, you can do state investments in any sectors you like. Also, you’ll have an option to nationalize existing enterprises (if you are able to suppress the resistance).

**Internal politics and loyalty**

People in general agree to pay taxes, but only as far as they consider them fair. Wealthier people tend to be happier with their current situation, and agree to pay more. You have an option to raise taxes for any wealth level above the default (agreed) level, but you will need to suppress possible riots using army (or, later, police).

Apart from wealth level, agreed level of taxes may be affected by the following:

* Level of public services. Higher standards in education and medicine may be a good excuse for higher taxes
* Recent war. War ongoing or the one you won may temporarily increase public loyalty; war you lost temporarily decrease it

Military/police forces in the settlement define the minimal level of loyalty you can afford to have without open riots. If loyalty falls below it, riots begin. During it, settlement doesn’t pay taxes. Also, it can lead to casualties among both civilians and your military, and destroyed enterprises in random sectors.

**Foreign affairs**

People beyond your borders can be either nomads, or settled. It is only settled nations you can negotiate with. During negotiations every side take some responsibilities. Note that the deal may be not balanced, since every nation, along with items to trade, has influence, which can affect the negotiations’ outcome. Influence depends on nation’s military power, and its relationships with other nations. Note though that misuse of influence may be seen as aggressive action by other nations, and affect their willingness to make business with you in the future. Possible trade items are:

* Grain/money (main payment mean of the nation);
* Access to markets in certain settlements;
* Control over settlements (right to collect taxes);
* Shipments of tools/machinery/resources/weaponry that other side cannot produce;
* Technologies;

Also, every nation can take some actions on its own, without other side’s permission:

* Ban certain import;
* Declare war;

As for nomadic tribes, you can try to persuade them to join you. It usually means one-time payment to their chief, and assumes that you didn’t have recent clashes.