

# Realism Invictus 3.5 changelog

## Major new features

- Barbarian Civ component. Barbarian cities can settle into new civs. Can be toggled on/off for custom games
- Revolution component. Cities now track separatism values and, if high enough, can rebel, proclaiming independence. Various ways of dealing with separatism, and aspects of the system change as the ages progress. Can be toggled on/off for custom games
- Influence Driven War component. Successful land combat spreads winner's culture to the plot; additionally, foreign culture decreases over time much slower than before, and can never go away completely (though can fall to almost zero); cities with high culture may generate additional defenders when left defenseless
- Religion shock component. New system where founding a religion causes the cities around the new Holy City to lose their current religions (except for existing Holy Cities). Gives later religions more breathing space to spread when founded in a region where every city already has at least one religion. Islam no longer condemned to never be taken up. Can be toggled on/off for custom games
- Civilizations now change their name and flag according to civics, era and certain other factors (particular leaders, being vassals etc). The changes are purely aesthetic and can be turned off by two separate custom game options (one for names, one for flags). China / South China and Hindi / Dravidian civs react to each other's presence/absence. Multiple instances of the same civ, were they to appear, get distinct names.
- City Growth Limits. New city screen buttons allow players to avoid growth under the following circumstances:
  - The city would become unhappy
  - The city would become unhealthy
  - The city's epidemic probability would exceed a limit

The AI now will also attempt to avoid growth if the city's epidemic rate exceeds an acceptable epidemic probability threshold. That threshold is defined per-leader based on their personalities. The AI now anticipates happiness and healthiness changes in upcoming eras, and takes those changes into account once it starts researching a tech that will advance eras.

- Added new scenario, RI Europe, with a detailed large map of Europe, Middle East, North Africa and Central/South Asia
- After many years, RI once again has a working German translation. Thank you very much for your hard work, Nanto!

## Balance changes: buildings

- Temple of Artemis no longer provides a free priest, but rather improves camp and fur camp improvements
- Great Library loses scientist slots, now provides a flat +10% global research
- Hanging Gardens no longer provides +1 pop to all cities, no longer requires river, but rather provides a source of fresh water (never expires unlike Great Bath) and food from Aqueducts and Wells
- Theatre of Dionysus moved to much more logical Drama
- Human Genome now provides +1 happiness and +1 population in addition to previous effects (late game wonders should be more game-changing)
- Moved Three Gorges Dam to Computers tech (arrived WAY early before)
- Most Medieval and earlier wonders now go obsolete at some point
- Nerfed Courthouse and Mayor's House to provide less maintenance reduction
- Coal plants can now be replaced by gas plants eventually, and they can be replaced by solar plants in turn. No longer are you stuck with dirty coal plants forever once you build them. Hydro plants replace Solar plants (not because they are better, but because once you've built a Hydro plant, you should no longer be offered any alternatives)
- Solar plants moved further up the tech tree, now require Environmentalism and Composites (to better reflect their in-game status as having no drawbacks compared to all other electricity sources)
- Palace now logically gives -2 epidemic chance in addition to +2 health
- Added +1 health to fishing docks, increased their cost 2x
- Warehouse no longer obsoletes at Metal Casting, now the first building of Workshop upgrade chain (and as such upgrades to Workshop when it becomes available). Loses +1 health, gains +1 craftsman slot
- Since Blast Furnace -> Ironworks price increase was too prohibitive, new cities founded after Ironworks was available had a tough time catching up; now Blast Furnace doesn't get obsolete (but is still replaced by Ironworks when built); accordingly, it has a new modern look in Industrial+ era
- Carpenter loses +1 production, becomes a purely timber-related building; as such, it is only available if the civ has access to timber
- Monastic order no longer goes obsolete (though it will still become functionally obsolete with regular farms, as it doesn't affect mechanized farms)
- Naval Workshops moved much earlier in the tech tree, to make Naval Supplies more relevant while Age of Sail is not yet drawing to an end. Mechanical Weapons tech renamed to Mechanics due to new non-weapon applications
- Redistributed epidemic reduction more equally among health-providing buildings. Totals remain the same, but Granaries are no longer much better at it than everything else

- Schools no longer require City Rights, so it is now impossible to unlock Universities before you can build Schools
- Buffed the bonuses of Nataraja and Luck of Edenhall, previously very underwhelming

### Balance changes: civ-specific

- Mayans now have a flavor stadium with +3 happiness, so upgrading to stadium from ball court actually makes sense in-game
- Mayan pagan temple loses the now-useless pop sacrifice bonus and gets +1 health
- Kak Tiliw now Arrogant instead of Cruel
- Aztecs get a new UB, a flavor School that also provides XP to melee and recon units
- Aztec pagan temple no longer reduces sacrifice unhappiness, but rather provides a gold bonus to slave markets and a culture bonus to schools
- German Rathaus now actually has a distinctive feature; it comes with City Rights, much earlier than normal Mayors (used to be identical to Mayor)
- Since Germany was terribly late-game focused and had the only late-game NI, to make it more interesting earlier on, it gets a second national improvement that comes much earlier, Thermal Bath
- Changed the color of Incas to be more distinct from Mayans
- Ukrainian colour changed to actual blue from the Ukrainian flag
- Nobunaga no longer Temperamental, becomes Cruel instead. Now favors Solar Cult instead of Buddhism. Now more likely to keep the country open and trade for stuff
- Mongol workers can now build pastures
- American Ranch now provides +1 food with Horseback Riding
- Russian NI lost all extra production, and now produces extra food with archery ranges; loses bonus from Flintlock Musket altogether
- Katyushas (Russian NU) moved to a more logical tech
- One of Dravidian NBs additionally improves elephant camps
- New Scandinavian NU: Jomsvikings; replace Berserkers. Mostly identical to the old NU, Jomsvikings are better suited to be an actual unit than berserkers, who were individuals. The difference is mostly aesthetic, though city raider of berserker is replaced with mercenary promo
- New Transoxianan NU: Nogai raiders; replace Turkoman raiders. Mostly identical to the old NU, Nogai are better known for their slave raids. The difference is mostly aesthetic, though black powder is no longer required
- Replaced NI: Transoxiana loses the Aryk Farm, gains an evolving Silk Road infrastructure (replacing plantations). At the highest level, Transoxian cities gain +1 free specialist per Silk Road Trading Town (also yield lots of gold when pillaged)
- Since England is firmly established as Anglo-Saxon and France as Frankish from the start, removed all early Celtic units from their rosters

- Since Portugal, Netherlands etc are revolters now, they lose all the special treatment that they had on World Maps. Now all previously one-city civs build settlers normally and don't have any free resources or research bonuses
- Buffed many minor civ unique buildings to compensate the lack of NIs (generally should now be more powerful than major civs UBs)
- Finland gets their own UB, separate from Russia
- Nubia no longer has any generic non-African units in its roster (European grenadier was especially glaring)
- Babylon unit roster largely uncoupled from Arabs (Medieval Babylon is Abbasid-based, while Arabia is mostly Rashidun and Umayyad, though a mix of all eras exists in both); Babylonian civ now called Mesopotamian for a broader definition
- Tatar roster largely uncoupled from Mongols, as well as unit naming
- Mexico derivative civ converted into Gran Colombia. As Aztecs eventually turn to Mexico via dynamic names/flags, a separate civ made no sense. New leader, new NU, lots of flavor units
- Reworked Halych-Volhynian civ that was previously a useless mishmash of Ukraine and Russia into the Lithuanian civ, with a full new unit roster, leader, city list etc.
- Due to Lithuania being a separate civ, Poland gets a new NU (light raider cavalry that ignores closed borders)
- New revolter civ, Brazil (New World needed another revolter); complete with leader, UB, NU (transferred from Portugal, they get a new one), quite a bunch new flavour units

### Balance changes: other

- Tweaked health/happiness progression per era to be a flat -1/-1 each era (not much overall difference, but now it's more evenly spaced out)
- Health penalties from difficulty are much less steep now
- Dynasticism tech gets different prerequisites - Iron Working instead of Armor Crafting and Ritual instead of Code of Laws; made as cheap as Politics
- Traditional Custom moved to Writing, while Republic moved to Alphabet (to avoid unlocking two civics with Philosophy, as players only get informed of one)
- Metallurgy now required for Labor Specialization
- Computers now require Television instead of Transistors
- Armor Plating now requires Military Industry
- Explosives no longer requires Physics; instead, Physics now requires Explosives. Physics is now a direct prerequisite to some other techs
- Rearranged and rebalanced the price of certain techs a bit around Renaissance era (no major changes, but some price increases/decreases)
- Selecting no research cost scaling from number of cities increases research costs by 30% across the board, to compensate for the fact that research costs are balanced for being increased

- Since we have cultivation, mechanized farms no longer "discover" crops to prevent the world from drowning in food
- Integrated MapScriptTools by Temudjin/Terkhen. The main aspect that should be improved is resource placement on random maps (since it has to be applied on a per script basis, this will only affect stock Civ 4 scripts and those that come bundled with RI)
- Guerilla promo line now grants +25% hills attack per level instead of flat +50% at the third one, consistent with forest promos
- Increased cargo space of all naval transports past galleys by 1. Colonization and naval invasions will now be more comfortable, but losing a single transport with troops now hurts a bit more
- "Nuclear carrier" is now "Modern carrier" and can use both nuclear and conventional fuel to build, since most non-US modern carriers are still non-nuclear. Default model for modern carrier changed to French-Brazilian Clemenceau-class, allowing US to have their own flavor modern carrier with a proper list of names
- Added hundreds of new flavor units to many civs, more often than not with their own minor stat differences
- Barbarians no longer build units from food (better growing barb cities, as barbarians mostly build units)
- Slave/serf rebels now far less likely to wander off to plunder countryside; will now concentrate on actually attacking cities
- Slave/serf revolts can be toggled on/off for custom games
- "Slave/serf revolt" random events will now only happen if actual slave/serf revolts are turned off in game options (made no sense to have two different mechanics depicting the same thing)
- Nomadism civic lost +1 production from Pastures and Camps (unique improvements untouched)
- Monarchy gets number of cities modifier instead of distance
- Introduced a new flavour with the only purpose of distinguishing between democratic and autocratic forms of government; now certain leaders will behave in a more predictable manner (for instance, pharaohs have less republican leanings)
- Nerfed Free Market a bit (+50% to trade routes instead of +100%)
- Made all leaders even less vassal-happy
- Previously barely used diplomatic modifier made meaningful: civs get a negative diplomatic modifier towards civs that are just ahead of them in score (more than flat 25, but less than 50% more) - should lead to a more dynamic diplomacy
- Added a new civic - Animism. Significantly improves jungle starts with extra health and slash-and-burn farm outputs
- Slash and Burn farms reduce epidemic chance by -1 instead of -0.5
- Epidemic chance from unhealth raised to +3, from being connected to an epidemic source to +6

- Immunity time after an epidemic doubled
- Cities with positive epidemic chance will now display epidemic symbol on their name bar (same as cities with negative health and happiness)
- Scrub is removed same as other features when improvements are built
- Barbarians should now tech faster (but can still never outpace actual players)
- As barbarian war galleys and cogs are now a more common sight (due to the above change), they get a flavor look that distinguishes them from default ones. Also, as barbarians use cogs as combat units rather than transports, their cog is +1 strength and can traverse oceans, to be something more than just free XP
- Naval tactics loses illogical +1 vision range, which becomes a new separate promotion for Sailing ships, called Exploration
- Merchantman moved to Naval Engineering to compensate for the loss of Naval Workshops
- Galleasses now require Sulfur instead of Gunpowder, same as Bombards. Makes one able to build them when one would expect (before, they were unlocked earlier than their resource prerequisite); also, now it is impossible to obsolete their required resource before you can build a more advanced unit
- Steam Frigate and Paddlewheeler bonus vs Sailing ships reduced to +50%
- Ironclads now have coastal attack and defence bonus +25%
- Privateers now actually start with Piracy promotion that was earlier technically in game but totally unavailable for anyone
- Increased the size of larger maps to account for more players added in RI by default; maps like Terra should be less cramped now
- Fixed the default number of players for huge maps
- World map hunter-gatherer civs now able to open borders at friendly level of attitude
- Since barbarian-settled continents are no longer a thing with BarbCiv, reverted spies to how they were in vanilla; no longer limited in number again, and invisible to all units, no longer ejected from enemy cities while at war
- Moved some techs from Classical to Ancient era to prolong it a bit
- Jewish missionary moved to Dynasticism, to prevent Jewish leaders from shooting themselves in the foot by founding Christianity (especially if Religious Shock is on)
- Since culture-based separatism is now meaningful even with no parent civ to defect to, killing a civ no longer makes all its culture disappear (it actually never disappeared even in vanilla Civ 4, just wasn't displayed or used for any calculations)
- Gave AI a strong distaste for founding cities directly on resources (suspicion is it previously was erroneously overvalued)

## Bug fixes

- Fixed many vanilla scripts (including Terra) to work with Giant world map size
- Fixed boats for most players after the first few being occluded with water (water being "opaque" for them)

- Ranged strike now selects targets using the stock algorithm, which fixes "Protect valuable units" breaking ranged artillery ability to attack certain unit stacks
- Spaceship parts no longer require Bauxites, but Aluminum as intended
- Merged K-Mod 1.45 (up from 1.44b) including its bugfixes and optimizations
- Removed a lot of unnecessary files that just duplicated shared assets
- Fixed a lighting issue on medieval work boats that made them unaffected by fog of war
- Aztecs no longer have Sacrificial Altars as their UB, as the bonus from them no longer makes sense
- Crusader state units in RI Crusades no longer have glitchy shields
- Tweaks to Harbormaster and Horse Whispering quests that hopefully will enable them to finish properly
- Incas can now build modern MBT, same as everyone else
- Persia no longer has MBT and improved MBT that look exactly the same. Improved MBT now accurately Zulfiqar
- Santa Anna now correctly upgrades to Frigate, just as all its flavor variants
- Conscripts no longer upgrade to Trench Infantry, but rather to Infantry, eliminating a gap in Irregular unit lineup
- City attack bonus removed from Great Bombard (as it can't attack), replaced by higher collateral damage
- Fixes to dozens of units and buildings: lighting, animations, gloss, textures, duplicate names, naming consistency, missing or wrong text entries, bounding boxes
- Fixed a bug where Seafarer leaders in scenarios didn't get their bonus trade route
- Fixed wrong lighting on some vanilla (!) units
- Fixed Scandinavian civ's wrong alphabetical position
- Fixed Dravidian civ error where they would destroy fertile soil on grasslands instead of cultivating Spices
- Market Relations now uses correct audio quote
- Fixed paved roads unconnected to other roads displaying as different type
- Canal improvement in pedia no longer has civ-colored water
- Black Guards should now properly display in pedia as a Berber unit
- Fixed tech tree display bug for Writing
- Fixed some faulty XML entries that might or might not have been causing some CTDs
- Fixed some wrong texture references in chariot models
- Fixed some improper symbols in random GP names that have been causing python errors
- If a battle yields any experience, it will net at least 1 GG point (so -40% GG points trait doesn't drive GG points to zero in most cases due to rounding issues)
- Changed several unit names that were the same as default ones for their class, breaking links in pedia
- Theocracy and Black Powder techs renamed to avoid pedia link confusion with a civic and a resource respectively

- Wonders that require civics to be built now correctly always require it to function as well (yes, this includes the well-publicised Motherland Calls exploit)
- With no unit cost scaling, scenarios with pre-placed barbarian cities resulted in barbarian overpopulation. Such scenarios will now get a significant malus for barbarian unit production in pre-placed cities if no unit scaling is selected
- Fixed a bug (actually a feature from K-Mod, it just didn't anticipate RI stuff) in city spot allocation, where every civ was considered a seafarer for the purpose of liking coastal city spots. Now only leaders with actual Seafaring trait or civs with a water-based unique building qualify (but they have an extra high preference now).
- Fixed some more bugs in the city placement code (didn't account for existence of negative traits)
- Fixed a wrong tag in dynamic city names preventing Inca Roca from having his own list
- Fixed an illegal character in city names
- Fixed Nasreddin Hodja being a great spy for one civ and a great artist for two more civs (though it's completely in-character for him)
- Fixed missing (or rather strangely commented out) Jahangir's greeting
- Fixed workers trying to chop down a swamp when draining it; now the more appropriate shovelling animation is used
- Fixed Poland using Russian modern infantry with its flavour IFV

## Cosmetic and technical changes

- Numerous improvements and optimizations to building models and textures
- Started adding shaders to many non-shader unit models to ensure they are lit properly by the game engine; lots of units still to go
- Added civcolor to some units that were shared between several civs
- Finland and Persia no longer use pure white color for their borders (which made Austria, Persia and Finland indistinguishable); still quite close to white in both cases
- Upscaled several smaller textures (who could have thought 10 years ago RI would be using machine learning for better looks!)
- Slightly updated terrain, included non-terrible mountains, less saturated plains, rivers matching in color hue to coasts etc.
- New cityset for steppe nomads
- New cityset for India and Southeast Asia
- Farmland plots now back to their vanilla size (smallish farms were aesthetically unpleasant)
- Normal/slave/mechanized farm slots now starkly visually different (by popular demand!)
- Many buildings that previously kind of had shadows will display them properly
- Classical European city set gets shadows (was pretty jarring, as it was the only one without shadows to occur much in regular games)
- Pharma companies no longer face away from screen with their facades (and thus logos)

- All ships in battleship upgrade line (starting with SotL) now properly use single figure per unit. Now easier to visually distinguish from frigates/cruisers
- Renamed Despotism to Autocracy (or rather applied the name that was long there, but unused by mistake), pedia entries for Autocracy, Monarchy and Republic now describe more clearly what they stand for
- Ethiopian UB updated to make more sense (Oromo were never renowned for their jewellery)
- PerfectMongoose swamp placement made somewhat random to alleviate the unsightly swamp lines
- Pedia now grants a rundown of a leader's AI major distinctive behaviors. No more guesswork!
- Air unit pedia no longer casts absolutely black shadows. Consequently, all planes should now use a material that doesn't emit light by itself, and will now be lit properly in-game
- Salt pits no longer stuck with ancient art for all the game, now use the same as quarries
- Industrial quarry gets a distinct transitional art between ancient and modern
- Armored Warfare and Combined Arms no longer have the same icon
- Ranged attack and siege bombard actions no longer have the same icon
- Added some more Great People with splashes to civs that had too few, or to cover significant previous omissions; redid some of the older Great Person splashes (especially spies)
- Changed the default name of a unit class from Fusilier to Line Infantry (though those are interchangeable in many contexts, "line infantry" is a more common and better defined). Some flavor units are still called fusiliers where it was appropriate or where the flavor name would get too long as a result
- For consistency, light, medium and MBTs now follow the same naming convention: Tank -> Improved Tank (as opposed to Early Medium Tank -> Medium Tank and Light Tank -> Late Light Tank before)
- Corrected the relative scale of all the tanks. Now light tanks are realistically smaller than medium ones, and modern MBTs now tend to dwarf WW2-era tanks, as historically
- Mongol NU finally looks distinctively from default trebuchet
- Brought leader names to a more common standard. All rulers who have numerals now have them shown, added several ruler honorifics (except for "the Great", since this is more or less every second monarch included in RI; with a special exception for Alexander the Great), several first names (to eliminate last-name-only leaders such as Caesar), only left place names ("of ...") where they are used to differentiate from another historical leader with the same name
- Improvements to various city lists. Added city lists for all potential civs that can be spawned through separatism (Babylon, Israel, Ukraine etc)
- Separatism chances in the safe zone (0-10%) and the danger zone (>10%) display warning icons - yellow and orange respectively - on the city billboard
- Dynamic city naming can now be turned off in custom options
- Bigger tech icons in the tech tree
- Non-researchable techs no longer shown in the tech tree (Great Schism in particular)

- New horizon texture for the land unit pedia screen (4x the resolution of the default one that was terrifyingly low-res)
- Tweaked pedia so that the animation window doesn't get ridiculously stretched on large and superwide resolutions
- With dynamic names/flags on, civs spawned from revolutions start as rebels, and only advance to regular civs if they hold at least 3 cities (purely aesthetic)
- Since now more cultures generally stick around, and Civ 4 engine can only display a stacked bar with no more than 4 colours, culture bar in the city screen is sorted so that 4 highest cultural percentages are always shown
- Civs with water-based NI like coastal city spots more
- Some QoL improvements from AdvCiv:
  - Civ territory on minimap shown half-shaded (as on the Military Advisor map), units not shown (pointless at that scale). GlobalDefine added for those who wish to switch that behaviour
  - When spies steal from your treasury, the message shows the exact amount
  - All dead civs shown in civ list, even if not previously met (since their destruction is announced to all players anyway)
  - All previous hidden diplomatic modifiers now also shown in the relations tooltip; can be turned off in GlobalDefines
  - Sum of all diplomatic modifiers shown in the relations tip