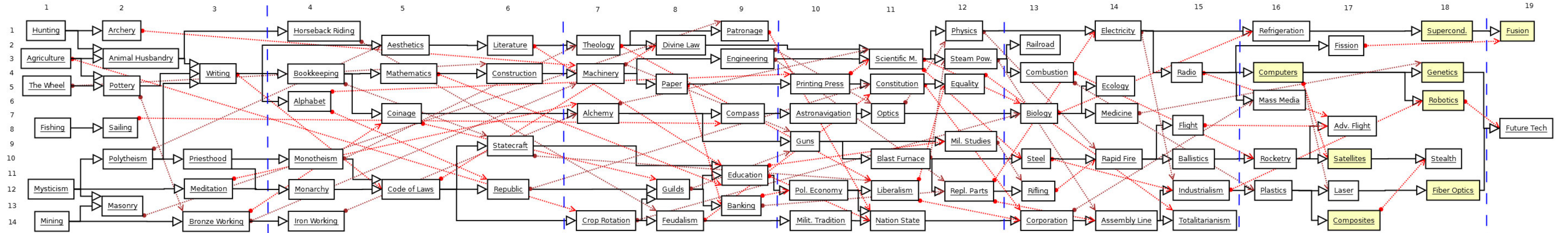# Legend

Blue dashed lines: Era boundaries
Red dotted arrows: Additional tech requirements (two different shades of red to make them less difficult to trace)
Yellow shade: Spaceship (SS) parts
Blue text: Different from BtS. Mere name or research cost changes not highlighted. When a tech name is blue, then almost everything about it is different from BtS.
Green text: Difference from BtS that is already implemented in AdvCiv.
Rationales in footnotes. These are mostly about historicity, whereas `stat-changes.pdf` mostly addresses game balance.
Alt + Left Arrow jumps back from a footnote in most PDF viewers. (The vertical space above the footnotes is a LibreOffice quirk.)

Correspondence between techs:

new	BtS	new	BtS
Bookkeeping	Calendar	Guns	Gunpowder
Coinage	Currency	Political Economy	Economics
Statecraft	Civil Service	Nation State	Nationalism
Republic	Drama	Blast Furnace	Chemistry
Alchemy	Philosophy	Military Studies	Military Science
Crop Rotation	Metal Casting	Ballistics	Artillery
Divine Law	Divine Right	Rapid Fire	n/a
Patronage	Music	Equality	Democracy+Communism
Astronavigation	Astronomy	Totalitarianism	Fascism+Communism

Tech tree diagram (columns 1–19). Nodes include: Hunting, Archery, Horseback Riding, Aesthetics, Literature, Theology, Divine Law, Patronage, Physics, Railroad, Electricity, Refrigeration, Supercond., Fusion; Agriculture, Animal Husbandry, Writing, Bookkeeping, Mathematics, Construction, Machinery, Engineering, Scientific M., Steam Pow., Combustion, Fission; The Wheel, Pottery, Alphabet, Coinage, Paper, Alchemy, Printing Press, Constitution, Equality, Radio, Computers, Genetics, Mass Media, Robotics; Fishing, Sailing, Statecraft, Compass, Astronavigation, Optics, Biology, Medicine, Ecology, Flight, Adv. Flight, Future Tech; Polytheism, Priesthood, Monotheism, Guns, Blast Furnace, Mil. Studies, Steel, Rapid Fire, Ballistics, Rocketry, Satellites, Stealth; Mysticism, Meditation, Monarchy, Code of Laws, Republic, Education, Liberalism, Repl. Parts, Rifling, Industrialism, Plastics, Laser, Fiber Optics; Mining, Masonry, Bronze Working, Iron Working, Crop Rotation, Feudalism, Banking, Pol. Economy, Milit. Tradition, Nation State, Corporation, Assembly Line, Totalitarianism, Composites.

Footnotes / Tech descriptions

- Hunting (60): Scout, Camp, Spearman (with Copper)
- Agriculture (60): Farm, Plantation (on Silk, Dye, Incense)[1]
- Wheel (60): Road, Chariot (with Horse)
- Fishing (60): can work Coast, Work Boat, faster movement along rivers[2]
- Mysticism (60): Monument, Stonehenge, reveal Incense[1]
- Mining (60): Mine, can clear Forest and Jungle for no yield[3]
- Archery (60): Archer, Great Wall (req. 2 Walls)[4]
- Animal Husbandry (100): Pasture, reveal Horse and Silk,[1] Stable (with Horse or Ivory)[5]
- Pottery (90): Granary (with Agriculture),[6] Cottage, Workshop on Plains[7]
- Sailing (120): Galley[8], Lighthouse, trade along unowned Coast
- Polytheism (70):[9] Moai Statues (with Sailing)[10], Culture slider[11], found Hinduism if discoverer owns a Buddhist city or if Buddhism not yet founded[12]
- Masonry (60): Quarry, Walls, Great Lighthouse (with Lighthouse), Pyramids[13]
- Writing (150): Library, Open Borders
- Priesthood (80):[9] Temple, Temple of Artemis[14], Oracle[13]
- Meditation (90):[15] Monastery[16], found Buddhism if discoverer owns a Hindu city or if Hinduism not yet founded[12]
- Bronze Working (120)[17]: Axeman (with Copper or Iron), reveal Copper, 20 yield from chopping Forest, Forced Labor[18]

- Horseback Riding (220): Horse Archer (with Archery, Horse)
- Bookkeeping (160):[19] Market, gold trading,[20] Temple of Kukulcan (with Priesthood)[21]
- Alphabet (200): Spy, Espionage slider[22], Commando promotion[23], build Research, increases tech diffusion[24]
- Monotheism (150):[25] Organized Religion, Winery,[26] unless discoverer owns a Holy City, found Zoroastrianism; if already founded, found Judaism instead[27]
- Monarchy (200): Hereditary Rule, Barracks, Fort[28]
- Iron Working (190): Swordsman (with Iron), Forge[29], reveal Iron
- Aesthetics (280):[30] Mausoleum of Mausolos[31], Statue of Zeus (req. 2 Monuments), Angkor Wat[32]
- Mathematics (240):[33] Aqueduct (with Mining)[34], Hanging Gardens (with Aqueduct), centers the map[35], Trireme (with Sailing, Bronze Working)[36]
- Coinage (320):[37] +1 trade route, build Wealth, Shwedagon Paya[38] (with Meditation)
- Code of Laws (270):[39] Courthouse, Caste System, Vassal agreement[40]
- Literature (350): Heroic Epic (with Library),[41] Great Library (with Library), Theater[42]
- Construction (400):[43] Catapult (with Archery[44]), Harbor[45] (with Lighthouse)[46], Colossus[47] (with Forge), Bridge building
- Statecraft (400):[48] War Elephant[49] (with Horseback Riding, Ivory), Forbidden Palace[50] (with Courthouses), Guerilla promotion[51], found Confucianism if discoverer owns a Taoist city or if Taoism not yet founded[52]
- Republic (420):[53] Parthenon (with Priesthood)[54], Arena (with Masonry)[55], Academy[56], Triumphal Arch (with Construction)[57]

- Theology (800):[58] Apostolic Palace, Hagia Sophia, found Christianity if discoverer owns a Jewish or Zoroastrian city[59]
- Machinery (800):[60] Watermill, Lumbermill, +50% chopping yield,[61] Crossbowman (with Iron or Copper)[62]
- Alchemy (700):[63] Pacifism, +10% research from Monastery,[64] found Taoism if discoverer owns a Confucian city or if Confucianism not yet founded[65]
- Crop Rotation (800):[66] Serfdom[67], can build Farm on Grassland without irrigation[68]
- Divine Law (1000):[69] Theocracy,[70] Spiral Minaret, found Islam if discoverer owns a Christian, Jewish or Zoroastrian city[59]
- Paper (1200):[71] University of Sankore, Bureaucracy (with Statecraft)[72]
- Guilds (1300):[73] Pikeman (with Iron), Maceman (with Machinery, Iron),[74] Plantation (on Banana, Spice, Sugar)[75], Workshop on all flat tiles[76]
- Feudalism (800): Longbow (with Archery, Iron Working)[77], Knight[78] (with Machinery, Iron, Horse), Castle[79], Vassalage civic
- Patronage (1400):[80] Sistine Chapel, build Culture, Cathedral
- Engineering (1500): Trebuchet, Windmill[81], Notre Dame (with Theology), Taj Mahal (with Divine Law)[82]
- Compass (1400):[83] Map trading[84], Explorer, Grocer (with Guilds)[85], Whaling Boats[86]
- Education (1500):[87] University, Oxford University (with University)
- Banking (1500):[88] Bank, Great Merchant if first to discover[89]

- Printing Press (2000): +1 commerce from Village and Town, obs. Great Library[90]
- Astronavigation (1900):[91] Caravel (with Construction)[92], Navigation II promotion[93], obs. Whale, Dye[94]
- Guns (2400):[95] Musketman, Pinch promotion
- Political Economy (2100):[96] Mercantilism, +1 production from Lumbermill[97], Customs House[98] (with Harbor), Versailles (Monarchy)[99]
- Military Tradition (2400):[100] Cuirassier (with Guns, Horse), Kremlin[101], Militarism[102], Defensive Pact
- Scientific Method (2500):[103] can impart tech[104], +1 research per specialist[105], obs. Statue of Zeus, Angkor Wat[106] and Monastery
- Constitution (2700):[107] Jail, Federation (with Nation State)[108], Representation, obs. Monument, Stonehenge[109] and Mausoleum of Mausolos[110]
- Optics (2500):[111] Galleon, Privateer (with Guns and Copper or Iron)[112], trade across Ocean, Lookout promotion for naval units[113], obs. Great Lighthouse[114]
- Blast Furnace (2700):[115] Cannon (with Iron)[116], Frigate (with Optics and Iron), Grenadier[117], Barrage promotion[118], obs. Colossus[119]
- Liberalism (2500):[120] Free Market[120], Free Religion, obs. Castle[121], Oracle[122] and Temple of Artemis[123]
- Nation State (2600):[124] Hermitage, Globe Theater (with Theater)[125], free Great Artist if first to discover[126]
- Physics (2700):[127] Observatory[128], free Great Scientist if first to discover
- Steam Power (3400):[129] Levee[130], Workers build improvements faster[131], Ironclad (with Iron and Coal)[132], reveal Coal, Farms spread Irrigation[133]
- Equality (3100):[134] Emancipation, Police Headquarters, Security Bureau,[135] Statue of Liberty (with Harbor and must be in Emancipation and Free Religion)[136]obs. Deer[137]
- Military Studies (2900):[138] Ship of the Line (with Optics, Blast Furnace and Iron), Military Academy (with Barracks)[139], +1 movement on Roads[140] and along rivers[141], Blitz promotion[142]
- Replaceable Parts (3300):[143] Drydock[144], +1 production from Windmill, Watermill and Workshop[145]

- Railroad (3700):[146] Rail Track (with Coal or Oil), Public Transportation (with Oil)[147], can trade Crab[148], Mining Inc. Executive (with Corporation, University), obs. Walls[149]
- Combustion (4100):[150] reveal Oil[151], Oil Well, Airship (with Physics)[152], Std. Ethanol Executive (with Corporation, University)[153], obs. Whale, Dye[154]
- Biology (4700):[155] +1 food from Farm, can build Farms without irrigation, Cereal Mills Executive (with Corporation, University)[156], obs. Temple of Kukulcan[157]
- Steel (4200):[158] Bunker[159], Steelworks (with Iron, Coal, Forge)[160], Cristo Redentor (with Theology)[161], construct Ancient and Classical buildings faster[162], Creative Constructions Executive[163] (with Corporation, University)
- Rifling (4000):[164] Rifleman, Cavalry (with Military Tradition, Horse)
- Corporation (4200):[165] Wall Street (with Bank), +1 trade route, State Property[166] (with Equality)[166], can train Executives at Universities[167], obs. Great Wall[168]
- Electricity (5000):[169] reveal Aluminum[170], Broadway (with Theater), +1 commerce from Watermill[171], Coal Plant (with Coal)[172], Hydroplant (with Steel), Three Gorges Dam (with Steel)[173]
- Ecology (5100): Environmentalism[174], Treatment Plant[175], Preserve Forest, National Park,[176] obs. Ivory[177]
- Medicine (4200): Hospital (with power), Red Cross (with Hospital), Fallout Shelter (with Steel, Manhattan Project)[178], Medic III promotion[179]
- Rapid Fire (4800): Machine Gun,[180] Field Gun[181], Interception I [182] and Ambush[183] promotions, Mount Rushmore[184]
- Assembly Line (5200):[185] Factory (with Coal, Oil or power)[186], Infantry (with Rapid Fire)[187], Universal Suffrage (with Equality)[188]
- Radio (7800):[189] Attack Submarine (Oil or Uranium)[190], Rock'n'Roll (with Arena[55], power), Eiffel Tower (with Forge), reveal Uranium[191]; Air Recon can reveal Submarines[192]
- Flight (7000):[193] Fighter (with Oil), Bomber (with Radio[194], Oil and Aluminum[195]), Carrier (with Coal or Oil or Uranium), Paratrooper (with Silk or Plastics)[196]
- Ballistics (5500):[197] Battleship (with Coal or Oil or Uranium), Destroyer (with Radio and Coal or Oil),[198] Tank (with Assembly Line, Railroad and Oil)[199]
- Industrialism (7200):[200] Industrial Park (with Factory, power), Marine (with Rapid Fire)[201], Transport (with Coal or Oil)[202], Pentagon[203], Aluminum Co. Executive (with University)[204]
- Totalitarianism (5500):[205] Police State, Permanent Alliance, Intelligence Agency, free Great Spy if first to discover,[206] obs. Parthenon[207]

- Refrigeration (8000): Supermarket (with power), +1 food from Fishing Boats[208], Sid's Sushi Executive (with Corporation, University)[209]
- Computers (8400):[210] 100% conversion rate from Processes[211], SS Life Support (with Ecology)[212]
- Mass Media (9000)[213]: United Nations, Hollywood (with Broadcast Tower), Broadcast Tower (with power), Civ. Jewelers Executive (with Corporation, University)[214], obs. Apostolic Palace
- Rocketry (8500):[215] SAM Infantry (with Radio[216]), Anti-Tank[217], Guided Missile (with Electricity[218], Nuclear Submarine (with Uranium)[190], Missile Cruiser (with Computers and Oil or Uranium)[219]
- Plastics (8500):[220] +1 trade route from Harbor[221], +3 happiness in all cities[222], Offshore Platform[223], obs. Fur, Silk[224]
- Fission (9500):[225] Manhattan Project (with Nuclear Plant), Tactical Nuke (with Rocketry, Uranium and Manhattan Project), ICBM (with Satellites[226], Uranium and Manhattan Project), Nuclear Plant (with Uranium)
- Advanced Flight (11000):[227] Gunship (with Oil); Jet Fighter (with Aluminum, Oil), Airport (with Oil)[228], obs. Stable and Horse[229]
- Satellites (9000):[230] Apollo Project (with Plastics)[231], reveal map, SDI (with Manhattan Project)[232]
- Laser (11000):[233] Mobile SAM (with Rocketry, Oil), Howitzer[234] (with Ballistics and Oil), Space Elevator (with Satellites)[235]
- Composites (11000):[236] SS Casing, Mechanized Infantry (with Rapid Fire, Aluminum, Oil)[237], Modern Armor (with Laser, Ballistics, Oil)[238]
- Superconductors (12000): SS Thrusters, Particle Accelerator (with Computers, Fission and power)[239]
- Genetics (12000):[240] SS Stasis Chamber (with Refrigeration)[241], +2 health, +1 food in Grassland tiles with at least 5 food[242]
- Robotics (10000): SS Docking Bay, +1 free Engineer from Industrial Park[243]
- Stealth (12000):[244] Stealth Bomber (with Advanced Flight, Aluminum, Oil), Stealth Destroyer (with Oil or Uranium), Air Recon can reveal stealth ships[245]
- Fiber Optics (12000):[246] SS Cockpit, Internet[247]
- Future Tech (10000):[248] + 1 health, +1 happiness
- Fusion (12000):[249] SS Engine, free Great Engineer[250] if first to discover