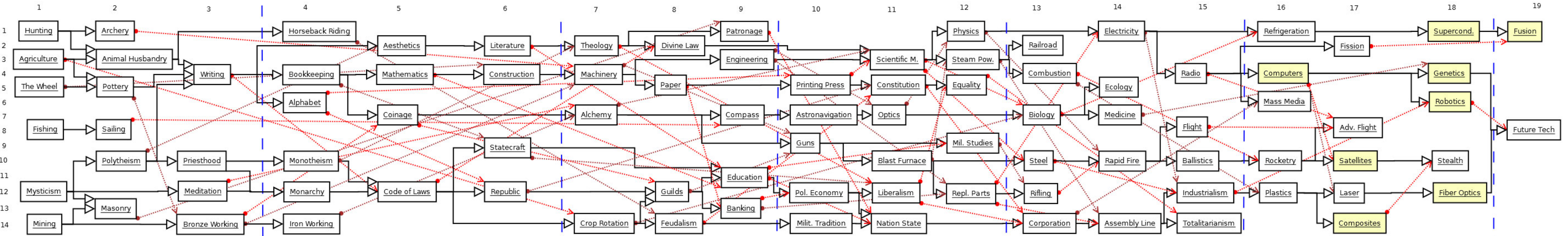


Legend

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:			
<i>new</i>	<i>BtS</i>	<i>new</i>	<i>BtS</i>
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	<i>n/a</i>
Patronage	Music	Equality	Democracy+Communism
Astronavigation	Astronomy	Totalitarianism	Fascism+Communism



- 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 rivers²
- Mysticism (60): Monument, Stonehenge, reveal **Incense**¹
- Mining (60): Mine, **can clear** Forest and Jungle for no yield³
- 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**)⁵, Cottage, **Workshop** on Plains⁷
- Sailing (120): Galley⁸, Lighthouse, trade along unowned Coast
- Polytheism (70):⁹ **Moai Statues** (with Sailing)¹⁰, **Culture slider**¹¹, found Hinduism **if** discoverer knows a Buddhist city or if Buddhism not yet founded¹²
- Masonry (60): Quarry, Walls, Great Lighthouse (with Lighthouse), Pyramids¹³
- Writing (150): Library, Open Borders
- Priesthood (80):⁹ Temple, **Temple of Artemis**¹⁴, Oracle¹³, found **Zoroastrianism**¹⁵ unless¹⁶ discovered owns a Holy City
- Meditation (90):¹⁷ Monastery¹⁸, found Buddhism **if** discoverer knows a Hindu city or if Hinduism not yet founded¹²
- Bronze Working (120)¹⁹: Axeman (with Copper or Iron), reveal Copper, 20 yield from chopping Forest, Forced Labor²⁰
- Horseback Riding (220): Horse Archer (with Archery, Horse)
- Bookkeeping** (160):²¹ Market, gold trading,²² Temple of Kukulcan (with Priesthood)²³
- Alphabet (200): Spy, **Espionage slider**²⁴, Commando promotion²⁵, build Research, increases tech **diffusion**²⁶
- Monotheism (150):²⁷ Organized Religion, **Winery**,²⁸ found Judaism **unless**⁴⁶ discoverer owns a Holy City
- Monarchy (200): Hereditary Rule, **Barracks**, **Fort**²⁹
- Iron Working (190): Swordsman (with Iron), **Forge**³⁰, reveal Iron
- Aesthetics (280):³¹ **Mausoleum of Mausolos**³², Statue of Zeus (req. 2 Monuments), **Angkor Wat**³³
- Mathematics** (240):³⁴ Aqueduct (with Mining)³⁵, Hanging Gardens (with Aqueduct), centers the map³⁶, Trireme (with Sailing, Bronze Working)³⁷
- Coinage (320):³⁸ +1 trade route, build Wealth, **Shwedagon Paya**³⁹ (with Meditation)
- Code of Laws (270):⁴⁰ Courthouse, Caste System, **Vassal agreement**⁴¹
- Literature (350): Heroic Epic (with Library),⁴² Great Library (with Library), **Theater**⁴³
- Construction (400):⁴⁴ Catapult (with **Archery**⁴⁵), **Harbor**⁴⁶ (with Lighthouse)⁴⁷, **Colossus**⁴⁸ (with Forge), Bridge building
- Statecraft** (400):⁴⁹ War Elephant⁵⁰ (with Horseback Riding, Ivory), Forbidden Palace⁵¹ (with Courthouses), Guerilla promotion⁵², found Confucianism if discoverer owns a Taoist city or if Taoism not yet founded⁵³
- Republic** (420):⁵⁴ Parthenon (with Priesthood)⁵⁵, Arena (with Masonry)⁵⁶, Academy⁵⁷, Triumphal Arch (with Construction)⁵⁸
- Theology (800):⁵⁹ Apostolic Palace, Hagia Sophia, found Christianity **if** discoverer owns a Jewish or Zoroastrian city⁶⁰
- Machinery (800):⁶¹ Watermill, **Lumbermill**, +50% **chopping** yield,⁶² Crossbowman (with Iron or **Copper**)⁶³
- Alchemy (700):⁶⁴ Pacifism, +10% research from **Monastery**,⁶⁵ found Taoism **if** discoverer owns a Confucian city or if Confucianism not yet founded⁶⁶
- Crop Rotation** (800):⁶⁷ Serfdom⁶⁸, can build Farm on Grassland without irrigation⁶⁹
- Divine Law (1000):⁷⁰ **Theocracy**,⁷¹ Spiral Minaret, found Islam **if** discoverer owns a Christian, Jewish or Zoroastrian city⁶⁰
- Paper (1200):⁷² University of Sankore, **Bureaucracy** (with Statecraft)⁷³
- Guilds** (1300):⁷⁴ Pikeman (with Iron), Maceman (with Machinery, Iron),⁷⁵ Plantation (on Banana, Spice, Sugar)⁷⁶, Workshop on all flat tiles⁷⁷
- Feudalism (800): Longbow (with Archery, Iron Working)⁷⁸, **Knight**⁷⁹ (with Machinery, Iron, Horse), **Castle**⁸⁰, Vassalage civic
- Patronage (1400):⁸¹ Sistine Chapel, build Culture, Cathedral
- Engineering (1500): Trebuchet, **Windmill**⁸², Notre Dame (with Theology), **Taj Mahal** (with Divine Law)⁸³
- Compass (1400):⁸⁴ **Map trading**⁸⁵, Explorer, **Grocer** (with Guilds)⁸⁶, **Whaling Boats**⁸⁷
- Education (1500):⁸⁸ University, Oxford University (with University)
- Banking (1500):⁸⁹ Bank, **Great Merchant** if first to discover⁹⁰
- Printing Press (2000): +1 commerce from Village and Town, **obs. Great Library**⁹¹
- Astronavigation (1900):⁹² Caravel (with **Machinery**)⁹³, **Navigation II** promotion⁹⁴, **+1 sight** on water⁹⁵
- Guns (2400):⁹⁶ Musketman, Pinch promotion
- Political Economy** (2100):⁹⁷ Mercantilism, +1 production from Lumbermill⁹⁸, Customs House⁹⁹ (with Harbor), Versailles (Monarchy)¹⁰⁰
- Military Tradition (2400):¹⁰¹ Cuirassier (with Guns, Horse), **Kremlin**¹⁰², **Militarism**¹⁰³
- Scientific Method (2500):¹⁰⁴ **can impart tech**¹⁰⁵, **+1 research per specialist**¹⁰⁶, **obs. Statue of Zeus, Angkor Wat**¹⁰⁷ and Monastery
- Constitution (2700):¹⁰⁸ Jail, **Federation** (with Nation State)¹⁰⁹, Representation, **obs. Monument**, Stonehenge¹¹⁰ and Mausoleum of Mausolos¹¹¹
- Optics (2500):¹¹² Galleon, **Privateer** (with Guns and Copper or Iron)¹¹³, trade across Ocean, **Lookout** promotion for naval units¹¹⁴, **obs. Great Lighthouse**¹¹⁵
- Blast Furnace** (2700):¹¹⁶ Cannon (with Iron)¹¹⁷, Frigate (with Optics and Iron), Grenadier¹¹⁸, Barrage promotion¹¹⁹, **obs. Colossus**¹²⁰
- Liberalism (2500): **Free Market**,¹²¹ Free Religion, **obs. Castle**¹²², **Oracle**¹²³ and Temple of Artemis¹²⁴
- Nation State** (2600):¹²⁵ Hermitage, Globe Theater (with Theater)¹²⁶, free Great Artist if first to discover¹²⁷, **Defensive Pact**¹²⁸
- Physics (2700):¹²⁹ **Observatory**¹³⁰, free Great Scientist if first to discover
- Steam Power (3400):¹³¹ Levee¹³², Workers build improvements faster¹³³, **Ironclad** (with Iron and Coal)¹³⁴, reveal Coal, Farms **spread Irrigation**¹³⁵
- Equality** (3100):¹³⁶ Emancipation, Police Headquarters, Security Bureau,¹³⁷ Statue of Liberty (with **Harbor and must be in** Emancipation and Free Religion)¹³⁸obs. Deer¹³⁹
- Military Studies (2900):¹⁴⁰ Ship of the Line (with Optics, Blast Furnace and Iron), Military Academy (with **Barracks**)¹⁴¹, **+1 movement on Roads**¹⁴² and along rivers¹⁴³, Blitz promotion¹⁴⁴
- Replaceable Parts (3300):¹⁴⁵ **Drydock**¹⁴⁶, +1 production from Windmill, Watermill and **Workshop**¹⁴⁷
- Railroad (3700):¹⁴⁸ Rail Track (with Coal or Oil), **Public Transportation** (with Oil)¹⁴⁹, can **trade Crab**¹⁵⁰, Mining Inc. Executive (with Corporation, University), **obs. Walls**¹⁵¹
- Combustion (4100):¹⁵² **reveal Oil**¹⁵³, Oil Well, **Airship** (with Physics)¹⁵⁴, **Std. Ethanol Executive** (with Corporation, University)¹⁵⁵, **obs. Whale, Dye**¹⁵⁶
- Biology (4700):¹⁵⁷ +1 food from Farm, can build Farms without irrigation, **Cereal Mills** Executive (with Corporation, University)¹⁵⁸, **obs. Temple of Kukulcan**¹⁵⁹
- Steel** (4200):¹⁶⁰ Bunker¹⁶¹, Steelworks (with Iron, Coal, Forge)¹⁶², Cristo Redentor (with Theology)¹⁶³, construct Ancient and Classical buildings faster¹⁶⁴, **Creative Constructions Executive**¹⁶⁵ (with Corporation, University)
- Rifling (4000):¹⁶⁶ Rifleman, Cavalry (with Military Tradition, Horse)
- Corporation (4200):¹⁶⁷ Wall Street (with Bank), +1 trade route, **State Property** (with Equality)¹⁶⁸, can **train Executives** at Universities¹⁶⁹, **obs. Great Wall**¹⁷⁰
- Electricity (5000):¹⁷¹ reveal **Aluminum**¹⁷², Broadway (with **Theater**), +1 commerce from Watermill¹⁷³, **Coal Plant** (with Coal)¹⁷⁴, **Hydroplant** (with Steel), **Three Gorges Dam** (with Steel)¹⁷⁵
- Ecology** (5100): Environmentalism¹⁷⁶, Treatment Plant¹⁷⁷, Preserve Forest, National Park,¹⁷⁸ **obs. Ivory**¹⁷⁹
- Medicine (4200): Hospital (with **power**), Red Cross (with Hospital), **Fallout Shelter** (with Steel, Manhattan Project)¹⁸⁰, **Medic III** promotion¹⁸¹
- Rapid Fire** (4800): Machine Gun,¹⁸² Field Gun¹⁸³, Interception I¹⁸⁴ and Ambush¹⁸⁵ promotions, Mount Rushmore¹⁸⁶
- Assembly Line (5200):¹⁸⁷ Factory (with Coal, Oil or power)¹⁸⁸, Infantry (with **Rapid Fire**)¹⁸⁹, **Universal Suffrage** (with Equality)¹⁹⁰
- Radio (7800):¹⁹¹ **Attack Submarine** (Oil or Uranium)¹⁹², Rock'n'Roll (with **Arena**⁹⁹, **power**), Eiffel Tower (with Forge), reveal **Uranium**¹⁹³; Air Recon can **reveal Submarines**¹⁹⁴
- Flight (7000):¹⁹⁵ Fighter (with Oil), **Bomber** (with Radio)¹⁹⁶, Oil and **Aluminum**¹⁹⁷, Carrier (with **Coal** or Oil or Uranium), **Paratrooper** (with Silk or Plastics)¹⁹⁸
- Ballistics** (5500):¹⁹⁹ Battleship (with Coal or Oil or Uranium), Destroyer (with Radio and Coal or Oil),²⁰⁰ Tank (with Assembly Line, Railroad and Oil)²⁰¹
- Industrialism (7200):²⁰² Industrial Park (with Factory, **power**), Marine (with **Rapid Fire**)²⁰³, **Transport** (with Coal or Oil)²⁰⁴, **Pentagon**²⁰⁵, **Aluminum Co.** Executive (with University)²⁰⁶
- Totalitarianism (5500):²⁰⁷ Police State, Permanent Alliance, **Intelligence Agency**, free Great **Spy** if first to discover,²⁰⁸ **obs. Parthenon**²⁰⁹
- Refrigeration (8000): Supermarket (with **power**), **+1 food** from Fishing Boats²¹⁰, **Sid's Sushi** Executive (with Corporation, University)²¹¹
- Computers** (8400):²¹² 100% conversion rate from Processes²¹³, **SS Life Support** (with Ecology)²¹⁴
- Mass Media (9000):²¹⁵: United Nations, Hollywood (with **Broadcast Tower**), Broadcast Tower (with **power**), Civ. Jewelers Executive (with Corporation, University)²¹⁶, **obs. Apostolic Palace**
- Rocketry (8500):²¹⁷ SAM Infantry (with **Radio**²¹⁸), **Anti-Tank**²¹⁹, Guided Missile (with **Electricity**²²⁰), **Nuclear Submarine** (with Uranium)¹⁹², **Missile Cruiser** (with Computers and Oil or Uranium)²²¹
- Plastics** (8500):²²² +1 trade route from Harbor²²³, +3 happiness in all cities²²⁴, Offshore Platform²²⁵, **obs. Fur, Silk**²²⁶
- Fission (9500):²²⁷ Manhattan Project (with **Nuclear Plant**), Tactical Nuke (with Rocketry, Uranium and Manhattan Project), **ICBM** (with **Satellites**²²⁸, Uranium and Manhattan Project), Nuclear Plant (with Uranium)
- Advanced Flight (11000):²²⁹ Gunship (with Oil); Jet Fighter (with Aluminum, Oil), **Airport** (with Oil)²³⁰, **obs. Stable and Horse**²³¹
- Satellites (9000):²³² **Apollo Project** (with Plastics)²³³, reveal map, **SDI** (with Manhattan Project)²³⁴
- Laser (11000):²³⁵ Mobile SAM (with Rocketry, Oil), **Howitzer**²³⁶ (with Ballistics and Oil), **Space Elevator** (with Satellites)²³⁷
- Composites (11000):²³⁸ **SS Casing**, **Mechanized Infantry** (with Rapid Fire, Aluminum, Oil)²³⁹, Modern Armor (with **Laser, Ballistics**, Oil)²⁴⁰
- Superconductors (12000): **SS Thrusters**, Particle Accelerator (with Computers, Fission and power)²⁴¹
- Genetics (12000):²⁴² **SS Stasis Chamber** (with Refrigeration)²⁴³, **+2 health**, **+1 food** in Grassland tiles with at least 5 food²⁴⁴
- Robotics** (10000): **SS Docking Bay**, +1 free Engineer from Industrial Park²⁴⁵
- Stealth (12000):²⁴⁶ Stealth Bomber (with Advanced Flight, Aluminum, Oil), Stealth Destroyer (with Oil or Uranium), Air Recon can **reveal stealth ships**²⁴⁷
- Fiber Optics (12000):²⁴⁸ **SS Cockpit**, **Internet**²⁴⁹
- Future Tech (10000):²⁵⁰ +1 health, +1 happiness
- Fusion (12000):²⁵¹ **SS Engine**, free Great Engineer²⁵² if first to discover

²⁵² That Engineer is fairly useless in BIS as there are few if any worthwhile wonders this late in the game. Can now also be used on SS parts (see Great Engineer in *nstat-changes.pdf*).