THE QUEST CLUB

The History of China Revisited

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The History of China

Introduction

The topic has unique symbolism for me. China and ancient Egypt have always extended a fascination for me. My engineering mentor and academic advisor, Dr Ming Chen, emigrated from mainland China to escape the Chinese Cultural Revolution initiated by Chairman Mao. The topic is very therefore special for me.

We have heard about the Middle East and its impact on the world today. What of the impact of the Far East and its history?

George Santayana said that "Those, who cannot remember the past, are condemned to repeat it."

Henry Kissinger's comment on history is that "History knows no resting places and no plateaus."

My Topic today is "The History of China".

The topic is germane 'for today because China has emerged as a world player technologically, diplomatically, militarily and monetarily. Yet, the History of China" is a formidable topic. The topic encompasses a people, a country, a culture long steeped in tradition, custom, and intrigue. I Will present an overview of the country itself and then discuss one phase of history that found to be compelling to set the stage for an understanding of China as we know it today as we view it through the lenses of technology, discovery and invention.

I have added a subtitle to the topic, call it "From Carts and Boats to Spacecraft and Space Travel, the Technical History of China" or "From the land dragon to the space dragon and beyond". Technology is an enabler for growth, invention and discovery.

The paper is developed in four parts:

The Background of China

The History of Chinese Technology through the Ages

The Impact of technology on China and the world

And concluding with a discussion on the world impact of Chinese Technology today

Let me begin with a discussion of the Background of the history of China,

1. Background Of China

"The History of China, as documented in ancient writings, dates back some 3,300 years. Modern archaeological studies provide evidence of still more ancient origins in a culture that flourished between 2500 and 2000 B.C. in what is now central China and the lower Huang He or Yellow River Valley of north China. Centuries of migration, amalgamation, and development brought about a distinctive system of writing, philosophy, art, and political organization that came to be recognizable as Chinese civilization. What makes the civilization unique in world history is its continuity through over 4,000 years to the present century." (10)

We know China through the arts - pottery, weaving, painting, metal working, and those marvelous Clay statues of an emperor's army. Literature, movies, and books have also been a means Of experiencing China in its glow and splendor and sometimes in its dark and menacing moments for example the Forbidden City and the Great Wall. With the upcoming Olympic summer games a major event for China.

what made China the giant it is today in the world? Chinese Movies have made an impact in the west such as "Crouching Tiger, Hidden Dragon" (2000), "The Last Emperor" (1987), "Lost Horizon (1937)", The Good Earth" (1937), and the many Chinese Martial arts movies our kids or grandkids have enjoy. The most visible part of Chinese culture in the US is the Chinese restaurant a mainstay of current America cuisine.

Located in Southeast Asia along the coastline Of the Pacific Ocean, China is the world's third largest country, after Russia and Canada. With an area of 3.7 million square miles and a coastline of 11,178 miles. it is shaped like a rooster and is bordered by 22 countries — 14 land mass countries and eight maritime counties. Land Mass countries-Korea, Vietnam. Laos. Burma, India, Bhutan, Nepal,

Pakistan. Afghanistan, Tajikistan, Kyrgyzstan, Kazakstan, Mongolia, and Russia. Marine-side neighbors— North

Korea, Korea, Japan, Philippines, Brunei, Indonesia, Malaysia and Vietnam. (10)

Geography

How can we best describe the geography of China?

Northern China

In northern China, "fertile soil is deposited on the North China plain, making it an eminently suitable place for agriculture. The North China Plain is, in fact, the birthplace of Chinese civilization, Northern China is usually relatively dry, especially in comparison with the south, because there is not abundant rainfall, The landscape is mostly dry and brown. Dry crops grow best there: barley, millet and wheat. There is usually only One crop a year," (6:3-4)

Southern China

In southern China, "an acre of rice can feed many times the number of people that an acre of barley or millet can. The large rice harvests sustained a much larger population than northern agriculture could, and gradually the population in southern China grew, through both natural increase and net immigration to the region. By around 1100 A.D., the majority of China's population was living in southern China, a situation that continues today. "(6:4)

As we look as China over time its history is divided into 4 Major Periods.
The Chinese Dynasties began about 2205 BC and continued until 1912 AD. The periods include Preimperial China that existed between 2200 BC to 256 BC and included the Xia, Shang and Zhou; Early imperial China that existed between 221 BC and 589 AD and included the Qiri, Hah, and the Period of Division; Middle Imperial China that existed between 589 AD and 1368 AD and included the Sui, Tang, Five Dynasties, Song, and Yuan; and Late imperial China that existed

between 1368 AD and 1912 AD and included the Ming and Qing, We tend to be most familiar with the Ming and Qing dynasties because they are the most recent. The periods and dynasties in Chinese history set the stage for the question of population, population growth and technology development.

Population

What Of China's epoch population? HOW did it develop?

China's population had reached about 60 million in mid-Han (around AD 2) and, after a probable decline in the era of disunion, seems to have approached 50 to 60 million again at the height of the Tang in the early 700s. It grew to perhaps 100 million in early Song and stood at about 120 million at the end of the twelfth century.

Population growth brought the rise of city life, which became most spectacular in the capital. As the political and administrative center of Northern Song, Kaifeng held a great concentration of Officials as well as the service personnel, troops, and hangers-on attracted by the court. It was only four fifths the size Of the Tang capital, Chang' an, but three times that of ancient Rome. In 1021 the population was about 500,000 within the walls. Including the nine suburbs, it totaled roughly a million. By 1100 the registered households totaled 1,050,000 persons. Adding the army made about 1.4 million. (6)

The population today in contrast is over 1.4 billion. China's population has increased to a point where it has major problems supporting it. China today must import agricultural products to supplement food grown for its enormous population.

Comparison with Roman and Egyptian Empires

All great empires tend to be compared to each other. How does the Chinese empire compare with the Roman and Egyptian empires? There are key questions we must ask.

" First, how did the Chinese Empire remain united when the Roman Empire and all other historic empires ultimately collapsed? Secondly, what caused the technical revolution that made twelfth century China the most advanced nation in the world? Finally, why did Sung China's flair for technology disappear and fail to produce the equivalent of the Industrial Revolution in the West?"

"The answers to the first two questions are found in the ability of the Chinese to keep ahead of their neighbors in the most important technical skills - military, economic and organizational - and, since strength in one could partially offset weakness in another, in the complex of such skills, as a whole. The reasons for China's technological stagnation after 1350 are more complex; they include a paradoxical 'high-level equilibrium trap', whereby farming and water transport were so perfected in traditional terms as to place a block on the expansion of per-capita demand and thus discourage investment of time and money in technological improvements." (4:Forward)

China is the Empire with a long history. In comparison:

Roman Empire lasted 2214 years (753 BC — 1461 AD).

Egyptian Empire lasted 3381 years (3411 BC — 30 BC) until it was absorbed by the Roman Empire.

China and the Chinese Empire lasted 4112 years (2200 BC- 1912 AD).

Technology Drivers

The empire succeeded because of specific drivers in the development of technology in the Chinese empire. The key drivers in the development of technology in the Chinese empire have been agriculture, transportation government, disease and education. We will look at each one individually.

Agriculture

Chinese agriculture was transformed between the 8th and 12th centuries. Improvements came in the north in the technology of a milling machine that led to the cultivation and replacement of rice over millet. Wet-field rice production allowed the movement into the south. (4:113)

The existence of a unified empire seems to have helped the spread of advanced practices.

These practices included the preparation of soil, planting and weeding, and the movement from the scratch plough to a furrow plough which occurred in the 3rd century AD. The plough was later modified for use in wet-field rice plowing in the early 9th century. The new plough required less oxen or water buffalo, one ox or water buffalo in the south versus three or four as customary in the north. The plough combined with the seed drill was invented in the late Sung or Yuan time for dry farming. (4:113-121) All of these advances provided greater efficiency and yields in agriculture.

Government

The Chinese government has morphed in different forms over the centuries. The predominate government form has been One led by an emperor. During the last 100 years though, the empire has seen both a republic and a communist led government. China in the last century saw the readmission of Hong Kong into mainland China and the continued resistance by Taiwan to readmission or absorption into the mainland fold.

The Current form of government is a system of National People's Congress. Representatives elected from all over China meet once a year to ratify policies and enact new laws.

Transportation

China's domestic and interregional trade was facilitated by cheap transportation on the Grand Canal, the Yangzi, its tributaries and lakes, and other river and canal Systems. These waterways stretched for something like 30,000 miles and created the world's most populous trading area. Foreign trade would be at all times an offshoot of this great commerce within China,

Epidemics in the Twelfth and thirteenth century, the counter to population expansion

"Large cities were hazardous to health because of the greater density of population, and the related problems of sanitation make it easier for epidemics to spread. Better communications also convey diseases more rapidly between urban centers. The rate of epidemics, formerly low, rose to

about one in every five years by the twelfth, and it is about now that the typical "crowd diseases" such as influenza and eruptive typhus first appear in Chinese medical writings." (4:175)

"The major constraint on demographic growth in the late traditional period seems to have been epidemic disease. In 1586-1589 and 1639-1644 China suffered from the two most widespread and lethal epidemics in her recorded history." These were plague epidemics. (4:310-311)

"In 1820-22 came the first great cholera outbreak, which originated in Bengal in 1817 and spread to China by the sea-routes. In 1821, the worst year, it was recorded in over eighty localities in nine provinces." (4:311) Epidemics did relieve population and land pressures temporarily. They also led to further positive medical developments. The issue of epidemics from China particularly influenza and bird flu still abounds.

Education

The technological key to the growth of education under the Song was the printed book. The first component of China's success in inventing the printed book was paper. Its development dated from the second or first centuries BC, but it was used in block printing only in late Tang. Northern Song was the first society with printed books. Europe lagged behind. Paper was cheaper when made of plant fibers in China than when made of rags in Europe, just as wood-block printing was simpler, cheaper, and better suited for Chinese characters than movable type. (6)

2. History Of Chinese Technology through the Ages

Technological Inventions

I view technology as an enabler in a society. "China saw a staggering number of technological inventions during the Han dynasty and even during the chaotic period of Division that followed it." (6:10)

Innovations and inventions were the underpinnings of society, as we know it today. Yet, technology did not evolve equally in each dynasty or period,

Some of the different inventions that evolved during the Chinese periods are directly comparable to today's technology. These include agricultural improvements, medicine, printing, water transportation, textiles, mounted warfare, earthquake detection, and alternative methods of flight.

The early Inventions and discoveries

Agriculture

The agricultural revolution had four key aspects:

1. Famers learned to prepare their soil more effectively as the result of new knowledge, improved or new tools, and the more extensive use of manure. river mud and lime as fertilizers.
2. Strains of seed were introduced which either gave heavier yields or resisted drought better, or else by ripening more rapidly made it possible to grow two crops each year on the same land.
3. A new level of proficiency was reached in hydraulic techniques, and irrigation networks of unprecedented intricacy were constructed.
4. Commerce made possible more specialization in crops other than the Basic food grains, and so a more efficient exploitation of varying resources developed. (6:113-118)

Medicine

"A separate system of state medical education prepared a quota of three hundred students for posts in the state medical service. The examinations were practical as well as theoretical: no one passed who did not cure the prescribed percentage of patients". (4:181)

Water Transportation

Chinese nautical technology led the world during the Song period (960-1279 AD). China's big compartmented ships (with as many as four decks, four or six masts, and a dozen sails), which were guided by a stern post rudder and the use of charts and the compass, could carry 500 men. This technology was far ahead of West Asia and Europe, where Mediterranean galleys were still using muscle power and an inefficient steering oar. (4:135)

"The introduction of the compass, first mentioned in a nautical context in 1119, marked a great step forward in safety at sea." (4:138)

"Medieval China was distinguished not only by its farming productivity but also by the cheapness and good organization of its water transportation system." (4:144)

Textiles

Sometime in the Northern Sung dynasty a machine was perfected for reeling silk. Worked by a treadle, this device drew a number of filaments simultaneously from a tub of boiling water in which silkworm Cocoons were immersed. The device was several times cheaper than the women workers it replaced, and was the first breakthrough into mechanical Spinning. "(6:194-195)

"China saw a staggering number of technological innovations during the Han dynasty and even during the chaotic Period of Division that followed. The following are but a few examples.

"The Chinese built the first suspension bridge in the world, 1,800 years before such bridges were known in the West. The first mention in Chinese historical materials of such a bridge, which dates back to Han times describes a suspension bridge in the Himalayas. (6:65)

"Everyone knows that the Chinese invented paper, but it was not the flimsy stuff pounded from wood fibers and shaped into thin sheets like the pages of this book. The oldest piece of paper in the world, found in China, dates back to the second or first century B.C.. In fact, early paper in China was so durable that it was sometimes used as clothing and even light body armor.

The Oldest paper on which writing survives dates to 110 A.D of Han China and records the rebellion of a frontier tribe. (6:65)

"Stirrups are such commonplace devices today that it is difficult to imagine riding horses without them. Ironically, even though the Chinese Were not a great horse-riding people, they were the first in the world to invent them, in the third century A.D. Centuries before this, the great mounted warriors of Alexander the Great and the Romans rode their horses without them and were jostled about on horseback with no platform from which to stand up and stabilize their rides. Chinese stirrups, made of cast metal and thus quite durable, hung in suspension from the saddle and constituted a platform on which the rider could stand and steady himself. Being able to do this greatly increased the rider's stability and enabled him to be much more accurate with a bow and arrow. (2:100-103) (6:66)

"The Seismograph, an instrument for detecting earthquakes when no perceptible local earthquake activity is felt, is a Chinese invention in the second century A.D. We have only documentary descriptions of it, but apparently the instrument consisted of a metal urn, on the outside of which several metal balls were held in the mouths of cast-metal dragons. Cast-metal frogs with open mouths waited below for the balls to fall, and when a certain ball fell into a frog's mouth, it indicated the direction in which the earthquake occurred. This seismograph did not measure the intensities of quakes, but even as a direction finder it found use in China more than 1,400 years before it was known in Europe." (6:65-66)

"The Chinese invented hang gliding and parachuting. A Taoist alchemist of the fourth century A.D.experimented successfully with man carrying tethered kites, and by the Sixth century the Chinese emperor of a minor dynasty was compelling his prisoners and erstwhile enemies to jump from heights while mounted On tether-less kites. One such flight was so successful that its terrified passenger managed to fly for a distance of about two miles. As far as parachutes are concerned, every redblooded schoolchild knows that Leonardo da Vinci recorded in his notes the concept of parachutes. The Chinese, however, went beyond conceptual sketches of parachutes and actually used them successfully as early as the second Century B.C. The great Han historian Sima Qian records in his history a Story of how a man fleeing from a pursuer jumped from a height using several large conical Straw hats tied together to his body and landed On the ground safely, Parachutes were not used safely and effectively in Europe until the late 1700s". (6:65-66)

Later Developments and Inventions

"We know by 1643 the troops of rebel leader Li Tzu-Ch'eng had bullet proof vests of several tens of layers of stitched soft silk sometimes even of 100 layers. These were light and pliable, but such that no arrow's barb or lead shot could piece them. (4:88) This is the fore runner of our body armor today.

"From the tenth to the fourteenth century China advanced to the threshold of a systematic experimental investigation of nature and created the world's earliest mechanized industry. This period was also the climax and the end of many preceding centuries of scientific and technical progress. Its foundation, above all else, was the art of woodblock printing, invented in the ninth century and in general use by the tenth." (4:179)

"The main force behind the renaissance of learning was the government. The only area in which it may possibly have hindered enquiry was astronomy, which was "classified" because of its connection with predictions and the calendar. The rang Code had punished offenders with two years' banishment for any private person possessing astronomical books or studying astronomy, but under the Later Chou in the 10th century the penalty was merely the destruction of privately owned books. (4:180)

"The Sung government pursued a policy of editing and printing the standard texts on mathematics, medicine, agriculture and warfare, besides of course the Confucian scriptures, the dynastic notes, law codes and writings of more important philosophers." (4.180)

"Everyone knows that the Chinese invented gunpowder, but many people are surprised to learn that Chinese alchemists were seeking an elixir of immortality when they discovered the formula for gunpowder. During Song and Yuan times of the Middle Chinese period, the Chinese invented and used grenades, land mines, flamethrowers, and bombs in warfare. Rockets were invented in Song China during the eleventh century, and the world's first true guns appeared in China during

the Song Yuan transition. Gun technology then quickly spread from China and reached Europe by 1320."

"Other lesser-known inventions of the Chinese are somewhat surprising. The world's first mechanical dock was invented in Tang China during the eighth century. By the eleventh Century, the ingenious Chinese inventor Su Song had perfected a mechanical clock that ran in good time from 1092 until Kaifeng the Northern Song capital, was overrun in 1126. Descriptions of this and other Chinese mechanical clocks eventually made their way to Europe, where a working mechanical clock was first constructed in the early fourteenth century."

"The world's first inoculation against smallpox probably occurred in China during Northern Song times; by sixteenth-century Ming times, it was widely practiced. The Chinese even made the World's first phosphorescent paintings in Northern Song times, Centuries before phosphorescent substances were first introduced in the West during the eighteenth century" (6:95-97)

The Turning-Point in the Fourteenth Century

"The medieval economic revolution did not continue. Between about 1300 and 1500, for reasons which are still largely in explicable, the Chinese economy fell into decline from which it only recovered slowly.

More importantly, sometime in the fourteenth century, the internal logic of Chinese historical development began to change." (4:203)

"Technology provides the most obvious and perhaps most basic example of this. During the period of the medieval economic revolution, economic growth had been accomplished by the invention of new techniques of production; but between 1500 and 1800, when there was a renewal of vigorous economic growth, invention was almost entirety absent.

The history Of Chinese technology development shows an uneven and sometimes cyclic periodicity. The developments were uneven across the ages and there were periods of little or no technological innovation or invention.

Impact of technology on China and the world

With large technological advances, why did China not move ahead with all its technology? Mark Elvin, a China historian, said: "Reading the literature of the China two or three Centuries before the modern age, there are moments when it is hard to believe that an industrial revolution had not begun." (4:285)

"Invention, a social phenomenon, cannot be linked to immediate economic causes alone, though this is more nearly the case with the related acts of innovation and diffusion. Technology and science have long had a powerful interrelationship, and machines may be conceived of, long before there is any pressing economic need for them. In late traditional China, economic forces developed in such a way as to make profitable invention more and more difficult. (4:312-313)

When temporary shortages arose, mercantile versatility, based upon cheap transportation, was a faster and surer remedy than the contrivance of machines. This Situation may be described as a "high-level equilibrium trap". (4:314) A term coined by historian Mark Elvin,

"It was the historic contribution of the modern west to ease and then break the high-level equilibrium trap in China. Opening the Country to the world market in the middle of the nineteenth century led before long to rapid commercial and industrial growth at the main points of contact, especially Shanghai." (4:314)

What are other reasons?

Between the seventeenth and eighteenth centuries, the jealousy of a scholar class whose fortunes were tied to Chinese teaming handicapped early industrialization. Conservatives feared that mines, railroads,

and telegraph lines would upset the harmony between man and nature and create all sorts of problems by disturbing the imperial ancestors, by assembling unruly crowds of miners, by throwing boatmen out of work, by absorbing government revenues, and by creating a dependence on foreign machines and technicians. Even when modernizers could overcome such fears, they still faced enormous practical difficulties such as the lack of entrepreneurial skills and capital. An ongoing process of self-sustaining industrial growth through reinvestment was never achieved.

The modernization of China thus became a game played by a few high officials who realized its necessity and tried to raise funds, find personnel, and set up projects in a generally lethargic if not unfriendly environment. Hope of personal profit and power led them on, but the Empress Dowager's court, unlike the Emperor's court in Japan gave them no firm or consistent backing. The Empress, on the contrary, let the ideological conservatives stalemate the innovators so that she could hold onto the balance of power.

China Today

Twentieth Century China, 3 percent of the total life span of the empire, experienced more dramatic changes that included the removal of the boy Emperor in 1912, depicted in the movie "The Last Emperor," the emergence of a post imperial government, World War l, World War Il and the emergence of two Chinas which includes Taiwan in 1950, the emergence of Mao and communism, the cultural revolution, China's rise as a diplomatic power, and the emergence of China as a monetary and trade power. China also emerged as the third world power not only militarily, but also in the space. China has emerged as the manufacturing powerhouse replacing Japan who had dominated after World War ll.
(9:416) (9:580)

China's dependence upon the west to educate its best and brightest in science and math allowed it to grow technologically. She has emerged as the third great space power and electronics

supplier. China and Taiwan developed technologically unequally. Taiwan was supported by the west especially the US while Mainland China was supported by the Soviet Union after the 1950 overthrown Of Chiang Kai Shek from Nationalist China. (9:577-580)

Technological advances in the last 50 years have depended upon her seeking out foreign technology and educating her youth in western universities. I managed a research program with Purdue in mobile cellular communications in which half of the doctoral students were from China. China has been a net applier of science and technology over this period. Her engineers and scientists were resettled, removed, or killed during her Cultural Revolution.

Her stature on the world Stage has been tremendously bolstered by her space program. China has launched a man into space, placed a probe around the moon and plans to place a man on the moon in the future.

"China is celebrating its 60th anniversary of space progress this year, but also laying out a sweeping plan for lofting Earth orbiting satellites for a multitude of duties, expanding its human spaceflight abilities, and carrying out a multi-step program of lunar exploration." (11)

There is a Great Dichotomy today.

Foreign companies have been investing and building plants in China. China is a net exporter and banker for the west particularly the US. The information age with television and the internet impacts the country, its news, and its perceptions of the world. People are migrating in large numbers from the country and farmland to the cities. There is a growing contention between the cities and the countryside for resources and rights. There is greater affluence among the younger people. Yet in China, agriculture still is a major industry of the empire. The leading industries are manufacturing, electronics and information technology, automobile manufacturing and financial services, real estate and construction, E-commerce and online shopping, the energy sector and mining, agriculture and the entertainment industry and the digital economy.

3. Conclusions

What of the Impact of China Today?

For many years, China has been on a program of economic development. But, millions in China still live in poverty. China's employment landscape is characterized by a shrinking working-age population and a transition to a service-oriented economy, leading to a 5.3% overall urban surveyed unemployment rate in August 2025. Key challenges include a high youth unemployment rate (18.9% for those 16-24 not in school) and structural mismatches between graduates' skills and available jobs, despite the overall labor force growing slightly in 2023,

China has considerable natural resources including coal, lead. zinc, copper, tungsten and gold and considerable oil reserves. (8) The bastions of technology though seem to reside in the major cities; China has moved from a county who was riled for copyright infringement, poor quality manufacturing, poor education and a repressive Cultural Revolution, to one who is a world power in many different arenas. She has risen in military might with long range aircraft, long range ballistic missiles, and nuclear weapons. There are challenges for China though. The biggest challenge is population. (14, 15)

"In addition to its overpopulation, China suffers from a serious imbalance because of backward traditional notions that favor Sons over daughters, In 1990, Chinas population was 51.6 percent male and 48.4 percent female, and the disproportionate disparity between China's male and female population has only worsen in the future. A huge excess of single and angry young men could, if mixed with xenophobia and anti-foreignism periodically fanned by the Chinese Communists to shore up and guarantee their political power, produce a toxic nationalistic brew with frightful implications for East Asian and world security.'" (16)

What of the Impact of China Tomorrow?

I predict six main outcomes will be evident in the future:

First, China will develop greater interdependence with the West in trade and finance to expand its export markets and manufacturing capability.

Second, the Chinese population will be influenced even more by Western values through television, movies, cell phones and the internet. Western values are seeping into Chinese culture with the expectation of western wealth and freedom.

Third, there will be a continued expansion of Military, Diplomatic, Financial, Trade, technology, and manufacturing capability as China continues to flex its might in all arenas.

Fourth, China will Continue-a positive net trade surplus with the western nations and particularly the US,

Fifth, rising technological prowess will permit the Chinese to expand its military capability and influence, heat up the space race. increase its agricultural capacity, and increase its manufacturing and electronics industries.

Sixth, I envision a country plagued by population problems; a country, who will become second in the world in population after India. am concerned about the regional instability resulting from an impending population and food crisis.

What is the impact of Chinese Technology?

Without such importation from China of nautical and navigational improvements such as ships' rudders, the compass and multiple masts, the great European voyages of Discovery could never have been undertaken. Columbus would not have sailed to America, and Europeans would never have established colonial empires.

"Without the importation from China of the stirrup, to enable them to stay on horseback, knights of old would never have ridden in their shining armor to save damsels in distress; there would have been no Age of Chivalry. And without the importation from China of guns and gunpowder, the knights would not have been knocked from their horses by bullets which pierced the armor, bringing the Age of Chivalry to an end.

"Without the importation from China of paper and printing, Europe would have continued for much longer to copy books by hand. Literacy would not have become so widespread." (1:6)

China has left a lasting impact on the world through invention and innovation. She has risen from a poor third World country after World War il to a superpower today.

The History of China is in truth entitled from Carts and Boats to Spacecraft and Space Travel, the Technical History of China" or "From the land dragon to the space dragon and beyond",

References

1. Robert Temple, "The Genius of China", 3000 years Of science, discovery and invention, Simon and Schuster, New York, New York, 1986
2. Carrington Goodrich, A Short History of the Chinese People, 3[16] Edition, Harper & Row Publishers, New York, New York, 1959
3. Martin Stuart-Fox, "A Short History of China and Southeast Asia: Tribute, Trade and Influence", Allen & unwin publishers, Crows Nest, Australia, 2003

a. Mark Elvin, "The Pattern of the Chinese Past", Stanford university Press, Stanford, California,
1973

5. Ho Peng Yoke, "Li, Qi and Shu, An Introduction to Science and Civilization in China", Dover Publications, Inc., Mineola, New York, 2000
6. David C. Wright, "The History of China", Greenwood Press, Westport, Connecticut, 2001
7. John King Fairbank, "China, A New Histo«, The Belknap press of Harvard University press, Cambridge, Massachusetts, 1992

g. Encyclopedia Britannica, Macropaedia. Encyclopaedia Britannica Inc., Chicago, IL, 1981

9. A. Wesley Rochem, Morris R. Buske, Hutton Webster, Edgar B. Wesley, "The Record of Mankind". D.C. Heath and Company, Boston, 1965
10. Wikipedia, online reference source
11. 22nd National Annual Space Symposium, Colorado Springs, Colorado, China's first deep space probe arrived in lunar orbit Monday, SpaceFlightNow , 2006
12. Launch of Chinese Luna Probe, www.space.com, 2006
13. Planned Birth Policy, www.Overpopulation.com
14. Chinese Nuclear Power, www.fas.org (Federation of American Scientists)
15. Hans M. Kristensen, et al., *Chinese Nuclear Forces and U.S. Nuclear War Planning*, Federation of American Scientists and Natural Resources Defense Council, October 2006
16. China's one Child Policy, BBC, Monday, 25 September, 2000, 16:56 GMT 17:56 UK
17. The Impact of Overpopulation: China's Labor Market and Work Culture in Comparative Perspective, https://hir.harvard.edu/economies-of-china-and-the-united-states/, October 28, 2024