



# Non-fiction

Group 5

# The Roads to the Heavens

*International Christian School, Chan, Yan Kiu Sherise – 16*

Deep in the contoured woodlands of Chongqing, China, is a staircase totaling six thousand, two hundred and eight steps, connecting the old Village of Contentment to the outside world.

The staircase, is not a product of natural erosion by the wind and rain, as seen in many hiking trails today; nor was it a project costing hundreds and thousands by the Chinese government, as seen in their recent efforts to mitigate poverty in isolated, rural areas; but rather, simply an act of love and affection, from Liu Guo–Jiang to his wife Xu Chao–Qing, spanning fifty years, with his bare hands and over twenty shovels. This staircase is now known as the Stairway to Heaven.

It is a considerable thought, that this is not a story unique to Mr. and Mrs. Liu, but rather the story of Chinese inventions over centuries of perseverance, iterations across generations of wisdom. The people of China look to the heavens as they take slow, but steady steps along the road of the cultural exchange of innovations — first with their bare feet, then on rickshaws and camelback, and finally speeding over magnetic levitation, soaring towards the skies they once only dreamed of voyaging towards.

— *In the beginning, the Chinese discovered the heavens.*

As superstitious as the Chinese may seem, the observations on precision placement of constellations in the sky took historical precedence over star signs annotated elaborately on a calendar. First setting their gaze on the heavens in 3000 BC, the first Chinese records of astronomy located circumpolar stars as reference points for what they could identify as ‘heavens’ in the boundless sky.

Astronomical inventions were instrumental to the work of Chinese astronomers, likely due to the precision required of them in their work — one mistake easily led to consequences as severe as getting beheaded. Among the Chinese, the armillary sphere earns its spot as one of the most remarkable of many notable precision instruments, leaving a legacy that traces a rewind in time into the Han Dynasties. Astronomer and financial secretary Geng Shou–Chang is known to be the brain behind the most primitive version of the sphere in Chinese history, the primarily bronze sphere having been birthed in the Western Han Dynasty. Zhang Heng from the Eastern Han Dynasty later became the recipient of the baton in the astronomy relay, taking his place as the creator of a water–powered version of the armillary sphere, known to reflect the astronomical observations with an unmatched precision. In the absence of modern technology such as electricity, satellites and wireless networks, Zhang’s sphere utilized hydropower in a system of gears that shifted the sphere on a weekly rotation, its technicalities truly ahead of its time.

Despite the astounding precision of ancient Chinese astronomers, who could develop entirely original measurements and iterations of these calculations in the absence of modern–day technology, their demanding work remained limited to their scope of discovery. The Chinese had long made the split between astronomy and astrology, whereas the latter was frequently consulted before an Emperor made important decisions and events based on superstitious inferences. It would be many centuries until these highly intelligent scientists’ work could be properly unraveled and recognized; so long that even these astronomers themselves would not have expected their field of study to grow into a fundamental feature of the country’s advancements.

— *In the beginning, the Chinese roamed the earth.*

The Chinese’s shots for the stars did not mean they ceased to roam the earth — not even conquest put an end to these discoveries. The Yuan Dynasty brought about not only a great shift in political power, but also technological breakthroughs amongst cultural exchange. A continuation of a project from the Song Dynasty, Mongol leaders pushed for the establishment of a grand canal stretching across Beijing, the Mongol Capital, to southern regions such as Hangzhou and the Yangtze Basin, purposed for transportation of commodities such as staple crops from locations rich in agricultural harvest to drier lands up north.

There never seemed to be an end to Chinese trade — the Mongol conquests did not put their footsteps on hold, nor did the cyclic rise and fall of every empire. Strongly flowing, travesty from a miniscule, stream–like desire into a river of ideas and trysts, then meeting the sea of endless possibilities under its establishment, trade was

integral not only to the economic sustainability of the civilizations, but also their innovations that stemmed from the imperfections, and a will to nurture their communities into prosperity.

Under the short-lived Yuan dynasty, papermaking and printing works sprung up across the country, particularly in trade cities such as Samarkand. Initially purposed to foster an emergence of Buddhism and religious merit within by spreading concrete copies of sacred texts, the paper-and-print industry rapidly expanded itself to greater purposes. The production of paper money became the first banknotes, designed for convenient trade in place of heavy coins, where each piece of metal only weighed up to a miniscule value compared to the bulk-buy luxuries merchants tended to purchase. The basic technique of ink on paper had its own specialty against fraud — a myriad of elaborate patterns carved on the print. As this leap in economic development brought about flourishing in the trading of numerous unique cultural goods, it unintentionally planted a side effect not even considered in the slightest before money became no longer scarce — inflation, speeding up the dynasty towards its eventual decline.

The prosperous trade networks established by China and its innovations come at a cost — its commute. For the average merchant living through the age of an absence of electricity, or any form of power remotely related to fossil fuel, the world felt much, much larger than it already was. Despite acknowledging the heightened harm of fatigue, or simply, the dangers of having to face nature's hurdles with the limits of the human body, merchants who were unable to resort to a camel or a horse, could only do so with their own body, with no alternative to better withstand the challenges of traveling.

Little did they know, they would be far from this obstacle if only they were born as a Chinese merchant centuries later.

— *The sky is not the limit.*

It would be no surprise that the Chinese share a sentiment for outer space, but what if I say that outer space too, embraces the Chinese?

2021 marked the fruitful harvests of Chinese launch missions since 2016, where the thriving Long March carrier rocket series renewed themselves to a next level of non-toxic and pollution free launches in accommodation to the many launch attempts conducted. Stepping out from the study of the stars from a purely observational approach, China now branches astronomy into seven fields, calling for a shift from astronomy itself in theory, to practicalities that merge the ever-growing discipline with other sciences, including, yet not limited to engineering, information technology and physics. The modernization of Chinese society turned innovation over onto a new leaf of inventions, encompassing the branches of concentrated space exploration, navigation, and even environmental governance within space technology.

In a way, the Chinese continue their conquests — for knowledge beyond their comfort zones of what is known on Earth. As the International Space Station retires in 2024, China will become the only country with a permanent space station, Tiangong, meaning *sky palace*. They have, indeed, conquered for themselves places beyond the Earth; a home in space, a journey to the far side of the moon, (more than) a few exquisite collections of manned and unmanned spacecraft, their names reflecting an originality and perseverance unique to their culture.

This may seem like history repeating itself in a different font — the conquest of the Mongols in the Yuan Dynasty, meeting its rapid decline from an uneven distribution — their excellent abilities to conquer, but unpolished skills in governance. Notwithstanding, the trope *feels* like a similar song, but there is a wild difference that sets the plots far apart: the Mongols were nomads, whereas the Chinese had rooted themselves in their heritage with a profoundness traversing the history books. In fact, the Chinese never ceased to overlook their existing progress throughout astronomy advancements. Establishing a strong satellite network, the Chinese broadcasting services have been one of the most sturdy and self-reliant, expanding its television and mobile service scope to the widest it has ever been for civilians within and beyond the country. These installations layer citizens' wellbeing with comfort and the contentment of accessing entertainment, building upon the firm foundations of China's meteorological satellites, designed to bring security through monitoring weather and natural disaster with precision, accelerating the acute responses to mitigate and relieve disaster efforts in the event of unexpected catastrophes.

It is as if the stars too, have seen the grit in this civilization's efforts to journey from only seeing them from far below, yet being able to learn about them with precision, to eventually, slowly but surely, on their way to reach them. The Great Wall of China is not the only thing that can be seen from space — the blood, sweat and tears behind the walls hold no voice, yet speak their deafening volumes.

— *Meandering, Gallivanting*

Past the bolstering pace in developments of the industrial revolution, the Chinese have long since journeyed everywhere with more than their feet, but rather developed a variety of vehicles designed to bring us to and fro between destinations far and near.

Present-day urban Chinese infrastructure accounts for routes and paths specifically designed for scooters and bicycles in place of heading between locations by foot, as well as being one of the leading countries to successfully facilitate shared transportation in the form of rental bicycles and scooters, often conveniently set at public parking spaces for these alternative vehicles, that take up less space and are often more eco-friendly than fossil-fueled cars. Across the rooster-shaped map encompassing China's many large provinces, China first developed its high-speed rail in 2008 between Beijing and Tianjin. Closely following the establishment, the Shanghai Maglev makes use of magnetic levitation rather than traditional track, giving itself the name of the world's fastest commercially operated train at a top speed of 431 kilometers per hour. China's railroads have continued to expand rapidly since then, currently possessing a network spanning over 40,000 kilometers, with the ambitions to reach 200,000 kilometers in 2035.

Over time, China has purposed its advancements in technological inventions to highlight an increase in efficiency, most notably seen through the amount of time each accelerated innovation saves. Within the commercial world, not only have the Chinese strived to close the distance between lands to shorten the amount of time in commute, but also reduce complex or repetitive procedures for purchases and trade. The rise of Alipay, the digital wallet, moves the country away from banknotes and their long-standing history to an economic ecosystem where scan-to-see, tap-and-pay becomes the epitome of urban transactions. Alipay's biggest competitor, WeChat Pay, pushes the all-in-one narrative further — set as merely one function in the multipurpose application, many Chinese civilians can simply install a single software in their phones — WeChat, and possess a multitude of functions such as reels, blogs, chats, games, online magazines, health declarations, and many more.

Believe it or not, the bar for the merchant industry has since lowered over centuries, as the risks have too. As a merchant throughout the Chinese Dynasties, one would have to endure the physical challenges of simply getting around to the most profitable spots within and beyond the country, having to painstakingly abandon their family for extended periods of time in the process. But the times have changed. Commerce is no longer the no-go cautioned against, leaving its reputation of being reserved for the ambitious in the dust. The strands of the web of Chinese innovation from astronomy continue to leave its lasting impacts on the country's internal developments, an immensely secure satellite network laying down the solid groundwork for trade to shift from real life to the internet, merchants now not even having to set foot beyond the comfort of their own homes in the extreme, a yield from the establishment of vast online shopping and payment platforms facilitated by China's very own satellite network.

Perhaps the merchants from the ages set in stone (bamboo, and the printing press too) would have chosen to reincarnate as a merchant today, simply to opt for a taste of the joys in the smooth exchange the Chinese have since brought themselves upon.

— *What next?*

The Chinese have long since progressed along the stairway to heaven with their leaps and bounds in innovation. In just a few thousand words, we have witnessed a marathon in which they may fall, down or behind; they may be put on hold entirely; they may be sighing in exhaustion of this long, uneasy run. Yet we see much more, of their stamina, their unceasing efforts to pass the spirit along with the slap of a palm, and most of all the epiphanies in smothering the cervices of imperfections that do none, but become the drive for them to rise after each fall, to pass finish line after finish line, and still run its course to achieve the impossible, as a river would flood each step of a staircase to the skies with its currents.

As part of human history, we have come so far; we have *only* come so far. And so, we proceed to ask ourselves; *where*, are the heavens we are trying to reach? *Which*, are the roads we are trying to plow through? *How*, should we tread, or sprint, or climb, or soar along our paths to the ever-changing, ever-renewing, ever-vast world of innovation? We are certainly not the first to do so, nor will we be the last — these are questions the intelligent Chinese also pose.

In fact, it is a common assumption to define a causal relationship between the Chinese and their inventions, rooted in the belief that it is only through continuous, repeated attempts and mere grit to achieve a certain technological advancement that spins the wheels of human history and its development. This extensive legend says

otherwise — gallant with the revelation that it is in fact, reciprocal between themselves; as water does so with the light: they flow freely, determined to renew themselves in a better form; they soar towards the heavens, the birth of a new transformative invention; and they fall — not with resignation, but with pride and joy, freely back again, into the flow which soon drives them to yet another peak of new discovery. They are the dewdrops upon a spiderweb of interconnected innovations within society. They are the oasis of rest and regeneration amidst a desert of ageing ideas in which freshness fades faster than ever before. Over centuries, the Chinese have built a fountain from tears of tediousness that springs the sweat of success.

An accident at home escorted 87-year-old Liu Guo-Jiang to his last breath, departing from the world where his wife remains with the Stairway to Heaven. Nevertheless, his love remains within each of the six thousand, two hundred and eight steps in Chongqing. Chinese inventors too, have since paved their road to the heavens, a steeply long-winding road stretching across space and time. Likewise, their achievements fade not over the passage of time and the shift of runners in the marathon, droplets in the currents, but remain in the passion and love they hold for each novel creation from their culture. Divergently, the steps they climb never cease; the roads to the heavens are ever changing and growing, with every path they build with their own hands.

# New Tales of China's Inventions: Acupuncture: the past, present and future

*Maryknoll Convent School (Secondary Section), Wong, Hiu Ka Kabi – 16*

China is a land of invention and creation, where many such innovative inventions have been created to completely rewrite the history of mankind. China never stops surprising the world with its remarkable inventiveness, from papermaking to mobile payment systems. The technologies that continually set new boundaries of the world allowed people to witness the constant waves of tales about China's inventions. As we enter a new era, it is important for us to look back at our previous inventions so that we can understand more about what future discoveries will emerge. One of the past inventions, acupuncture is widely practised though few people know its origin.

Acupuncture is an ancient medical practice rooted in China that became increasingly popular all over the world, especially among Western countries, during recent years. The power of healing through acupuncture is still an amazement to the world due to its non-invasive and holistic treatment approach. Acupuncture has its origin in ancient Chinese philosophy, from the concept of yin and yang, that is the balance, circulation of Qi (pronounced "chee"), which means life force or life energy. This concept proposed that if the flow of Qi is imbalanced and interrupted, it can result in illnesses and physical issues. These philosophical principles led to the development of acupuncture as a way through which balance and harmony can be restored in the body.

The first proof about acupuncture goes back to the time of Shang Dynasty (1600–1100 BC) in China. At this time, bone needles and sharp stones were put in the skin at definite points along the body's meridians. These are the channels that are believed to transport Qi in all parts of the body. These early acupuncturists were dependent much on natural observation to observe the works and disturbances of the human body.

Over the ages, acupuncture developed and during the Han Dynasty (206 BC – 220 AD), a medical compendium called Huangdi Neijing or The Yellow Emperor's Inner Canon was created which helped to standardise acupuncture treatment. The meridians, the points of acupuncture and their curative effects are discussed in full measure. As inner Canon integrated acupuncture as one of the major treatises on Traditional Chinese Medicine (TCM), it became its foundation for further development.

In the 19th and early 20th centuries, acupuncture's long history was interrupted by a new phenomenon – Westernization that led to the development of modern medicine. By the time of the May Fourth Movement, acupuncture techniques were widely ridiculed and had become obsolete in the Western world even inside China. But acupuncture was revived in the 1950s when Chairman Mao Zedong, leader of People's Republic of China spoke well about traditional Chinese medicine and that it had a lot to offer. This led to the establishment of acupuncture clinics and the popularity once again.

In the modern era, acupuncture is admitted as a complementary and alternative medicine (CAM) practice. While its efficacy has been substantiated by numerous scientific research, the mechanism of actions is not yet fully understood. It is believed that introducing thin, sterile needles into particular acupuncture points stimulate the nervous system and release endorphins which promote self-healing by the body.

Nowadays, acupuncture is practised in many parts of the world and several regulations have been set to ensure that it becomes safely used. It is frequently valued for pain relief, stress control and overall well-being. In the Western

world, acupuncture is often used as an integrative treatment apart from standard medicine where it involves both traditional and modern methods.

In short, acupuncture is an ancient Chinese practice that forms part of traditional Chinese medicine. So based on the philosophies of yin–yang and circulation of qi, it has been utilised as a way to restore balance in an individual’s body hence promoting healing for thousands of years. While acupuncture has had its fair share of hurdles in the past, it is still considered an essential and respected form of medical practice that enjoys worldwide recognition. Its ongoing development and distribution also show its continued significance in medicine.

# Chinese inventions

*Pui Kiu College, Lee, Ying On – 17*

Whenever we talk about Chinese invention, we always think of papermaking, printing, gunpowder and the compass – the four great inventions of ancient China which have significant contributions of the Chinese nation to world civilization. Counting the impressive, splendid invention from China in the epoch of technology, artificial satellite, the space station, electric vehicles, the evolutionary 5G and 6G are of top-notch. However, in my point of view, the most worth mentioning Chinese invention is the hybrid rice, not only it is a revolutionary act, but also it benefits all of people of the globe and contributes a lot to our daily lives in terms of food supply and details of it are expounded below.

The current food crisis is probably the worst in a decade. With the consequences of climate change coinciding with trade restrictions and conflict, years of progress in the battle against hunger and poverty are being rapidly reversed. Many countries are responding with policies that amount to food protectionism, which on a global level will only lead to further food insecurity as richer countries outcompete poorer ones in the race for scarce resources. The majority of analysts believe there is an urgent need to make structural changes to global food systems, rooted in both sustainable food and agricultural practices and adequate planning.

Yuan Longping, the world-renowned “Father of Hybrid Rice,” is an outstanding agronomist from China and winner of multiple awards including the National Science and Technology Award, the WIPO Gold Medal for Inventors, the UNESCO Science Prize, and the World Food Prize. He has devoted to hybrid rice research since his early 20s and has established a technological roadmap for super hybrid rice breeding. His accomplishments have contributed to China’s food self-sufficiency and the world’s food security.

Hybrid rice can be divided into three categories of strategic development: the three-line method, the two-line method, and the one-line method. As the application method becomes simpler, the efficiency increases. The level of [heterosis](#) is increasingly strong, which varies from species to subspecies and even includes distant heterosis.

The three-line method utilizes heterosis in the following three lines: the nucleo-cytoplasm interaction male sterility line (i.e., male-sterile line), the male sterility maintenance line (i.e., maintainer line), and the male sterility recovery line (i.e., restorer line). The male-sterile line provides a material basis for the production of a large number of hybrid seeds, the [maintainer line](#) is used to propagate the sterile line, and the [restorer line](#) is used to pollinate the sterile line to produce male-recovered hybrid rice seeds with heterosis. Chinese three-line hybrid rice was first used successfully in 1973, becoming a classic method of utilizing heterosis.

The two-line method requires only sterile lines and restorer lines to utilize heterosis, while the most successful method is to utilize photo-thermo-sensitive genic male-sterile (PTGMS) lines, which display male sterility during long days and high temperatures, and [male fertility](#) during short days and low temperatures. Hybrid seeds are produced during the sterility period and sterile lines are produced by inbreeding during the fertility period, [rendering](#) the maintenance line unnecessary.

Two-line hybrid rice was a significant scientific and technological achievement for China’s agricultural community. First achieved in 1995, its annual planting area now accounts for more than 50% of hybrid rice varieties. The achievement “Research and Application of Two-line Hybrid Rice Technology” won the 2013 National Science and [Technology](#) Progress of China Special Prize. Third-generation hybrid rice, which can also be considered as a



two-line method, in a sense, achieves heterosis through the self-breeding of common recessive nuclear male-sterile lines via genetic engineering technology. These varieties are currently being tested for production.

One-line hybrid rice breeds hybrids with fixed heterosis and no separation, and does not require annual hybrid seed production. This technology is still being developed.

China has been a leading exporter of hybrid rice. Hybrid rice technology is listed by the [Food and Agriculture Organization](#) of the United Nations as the preferred method for increasing [food production](#) and solving the problem of food shortages in developing countries. Many people come to China to study and exchange information about hybrid rice technologies, including senior experts from the United States, [Japan](#), and India. At present, Chinese hybrid rice has been successfully tested or developed in more than 60 countries including India, Bangladesh, Vietnam, the Philippines, Pakistan, the United States, Indonesia, Myanmar, [Brazil](#), and Madagascar, with planting areas exceeding  $6 \times 10^6 \text{ hm}^2 \cdot \text{a}^{-1}$ . In this way, China is providing a solution to global food-shortage problems.

When grown under the same conditions as comparable purebred rice varieties, it can produce up to 30% more yield. there are more than 2.2 billion acres of rice fields in the world, covering 150 million hectares. If half of them, 75 million hectares, are planted with hybrid, assuming an increase in yield of 2 tons per hectare, 75 million hectares will produce an additional 150 million tons of rice, which can feed around 400 to 500 million people. Take the Philippines as an example: Since 1995, the Philippines has taken the development of hybrid rice as a strategic decision to solve food problems and develop the economy. In 2005, the area planted with hybrid rice reached 370,000 hectares, with an average grain yield of 6.5 tons per hectare, which is 80% higher than the average yield of other conventional rice. In essence, the hybrid rice is indeed imperative to all residents of the world, it increases food supply, and ease food shortage to a large extent. So, among all the superior invention made from china, hybrid rice is definitely the most honourable, it contributes significantly to all of us, it leads us to better lives, a better world. In conclusion, through unwavering dedication, Chinese scientists successfully invented the hybrid rice, improving the breeding method from three line to two line, and it is envisaged that there will be one line in the future, and I believe it can come true.

# China's Inventions and Why Are They So Important

*St. Joseph's College, Lee, Cyrus Chi Hin – 16*

According to the statistics released from the China National Intellectual Property Administration (CNIPA), from January 2023 to July 2023, the number of invention patents granted in China was 515,000, with a year-on-year growth of 9.49%. The innovative industry in China is emerging, however why are inventions so important such that not even the society pursues new inventions, but also the government is determined to expand this industry? The 'Three Step' Development Strategy established by the Chinese Government has 3 stages: The first stage in 2020 aimed to develop an innovative system with Chinese characteristics; during the second stage in 2030, China will surpass USA to become the top innovative country; finally at the last stage in 2050, China hopes to become world dominant power in science and technology. In what ways inventions are important? This will be discussed in the remainder of this essay.

First and foremost, how did the Chinese create their own inventions? What makes them different from other cultures so that they can have their own unique inventions? The Chinese nation is known for their diligence and their strict education to children. Yet in an era which demands innovative ideas and creative thinking, are these really the key elements which has brought them to their success? Personally, I think to invent a brand new design, circumspection and flexibility is the most important traits one must own.

To begin with, investors has been carefully observing details that appear in our daily life, has been inspired by these signs, and has came up with ideas which then successfully turns into reality. Cai Lun, the inventor of paper, by observing the way how paper wasps made their nests, he noticed that he could produce paper from a similar fashion therefore he came up with his new method of making paper: using bamboo, hemp waste, old rags, fishnets and bark from trees as the materials. The materials were boiled to a pulp that was beaten with a wood or stone mallet before being mixed with a large amount of water, at last processed with wooden sieves and removed from excess water to make paper. Had Cai Lun not been inspired by the way paper wasps make their nests, he would not have come up with this invention which benefited human civilization to this date.

Moreover, a person needs to have a flexible mind to come up with ideas which are astounding enough to keep them unique. Dayu, the inventor of chopsticks, invented chopsticks out of sheer starvation. On a cold and windy night, when Dayu was cooking meat in a pot to compensate for his hunger, he suddenly realized that the meat was too hot for one to use bare hands to fetch it. He saw a tree and cut its branches off, then used 2 of the straws to clamp the meat from the pot. Dayu's flexible mind has allowed him to discover the limitations of humans, and how we can make use of tools to solve problems. To summarize, inventions are made only when people are circumspect and flexible.

Now we know that the Chinese have achieved their success because of their circumspection and flexibility, you may wonder: Why is it so important to make inventions then?

How is the innovative industry so powerful in a way such that no other jobs can substitute it?

Firstly, each invention is a commitment to the society, and in the long term inventions might lead to the prosperity of a country. In other words, inventions improve our society and increase the quality of people's lives. The BeiDou Navigation Satellite System was invented and gradually applied in China, installed in vehicles and fishing vessels to assist navigation and to tackle emergency situations or remind motor vehicles of road accidents, fishing vessels of bad weather by knowing the latest changes in traffic or weather. By reducing the number of accidents and the impact of accidents, the efficiency of urban life has been facilitated. Additionally, people's livelihood and even national security has been improved. In such ways the society has been benefited. To think further, the BeiDou Navigation Satellite System can greatly reduce the number of deaths in China every year, promote China into a safe country and further contribute to the prosperity of China. This tells us that inventions can have a major impact on a country as time goes by.

Furthermore, inventions aid the survival of humans. To elaborate more, inventions keep human civilization alive so that civilization does not break down. Using 5G communication technology as an example, it has already covered 95% of China's territory, and although it gave birth to new technologies such as unmanned aerial vehicles, smart cities and even smart healthcare, most crucially it supported the mobile network of the 1.4 billion people in China. Imagine if 5G communication technology never existed, what would happen to those 1.4 billion people? Without a network, they would not have been able to call food delivery for a takeaway lunchbox, keep in touch with the Internet, or even communicate with their loved ones to tell them that they are safe through mobile apps such as LINE or WeChat. How would humans adapt to such an environment in a short period of time? Order would have been disrupted, chaos would have been everywhere, everyone in the world would have been driven mad! We should be grateful that inventions are satisfying different needs of humans so that civilization is kept unharmed until today.

You may be asking yourself, why are these dumb people not caring for their own fame or benefits but are serving the community? Well, we have seen how inventions changed other people's lives. However, does that mean Cai Lun or Dayu do not live on other people's inventions? Certainly not, one cannot invent all the inventions therefore humans sometimes need to fetch their companions for help when they are in vain. Always remember that humans are interconnected and can only live interdependent lives. If the rest of the world died, one would not be able to survive as he needs other people's help with affairs he cannot manage alone; these wise scientists have realized that humans cannot sweep the snow from their own doorstep. As another human being, we should also remember their spirit: to care for others and lend them a helping hand, so that we can pass on human civilization to the next generation.