

Huge construction project, wonder of the world

The Great Wall winds its way westward over the vast territory of China from the bank of the Yalu River and ends at the foot of snow-covered Qilianshan and Tianshan (mountains). It climbs steep mountains and cuts across pasturelands and deserts. A most massive barrier, it involves difficult engineering work and has a very long history. It is seldom that we see such a gigantic project in China or elsewhere in the world.

As early as the Spring and Autumn Period each principality in China constructed its own great wall at various strategic places to defend itself from rivals. The Great Wall is different from ordinary city walls in that it extends itself continuously for miles and does not encircle a city.

In early days many a great wall had been built -- north, east, west and south -- over the vast territory of China. Each stretches several hundred h in length. The Chinese name Chang Cheng or long wall came into existence because of its length. Chang Cheng (Great Wall), which extends through North China, is very magnificent. Every time the Great Wall was reconstructed --in Qin, Han and Ming Dynasties -- its length exceeded 5,000 km (10,000 li). Hence the name Wan Li Chang Cheng or the long wall of 10,000 li. Actually, the long wall of 10,000 li is more than its stated length. The Great Wall reconstructed during the Ming Dynasty alone exceeds 7,300 km in length. Most of the ruined silos of the Ming built wall remain to this day.

According to records put down in Chinese literature, as many as 20 principalities and dynasties took part in reconstructing the Great Wall. If we add the length of the wall built in each dynasty the total comes to over 50,000 km. We find ruined sites of Great Wall in China's northwest, northeast, various provinces of North China as well as the vast stretch of land lying between the Yellow River and the Yangtze River. In Inner Mongolia the Great Wall attains a length of 15,000 km (30,000 li) in all.

The project of the long wall of 10,000 li certainly entails tremendous amount of construction work. According to a rough estimate of the bricks, stones, cubic meters of earth used to make the wall during the Ming Dynasty, it is said that with the material we can build a wall --one meter thick and five meters high, to encircle the earth once and we still haven't exhausted it yet. If the same amount of material is used to pave a highway five meters wide and 35 cm thick, it can encircle the earth three or four times. If we add the total length of the Great Wall built in successive Chinese dynasties, it can encircle the earth 30--40 times!

Chang Cheng--the Great Wall, imposing and magnificent, certainly deserves to be called the wonder of the world!

100,000 li wall, 2,000 years in the making

We seldom find a civil engineering project, such as the Great Wall, which takes so long a time to build-- since its inception to the end of the Ming Dynasty.

The time when the Great Wall was first built can be traced to the Spring and Autumn Period and the Warring States Period. When the ruling power of the Zhou king declined, principalities sprang up and carved up the country into many states, rivalling each other. To defend against the attack of neighboring states, the principalities built great and high walls in their own domains. From the point of view of the development of defense network the Great Wall emerged first as single architectural units -- horizontally arranged wall and beacon tower. There were a series of castles of a defensive nature or defense works in which each state stationed guards in their own domains to watch the beacon fire. Gradually, however, they were linked up into a great wall.

"Shi Jing" or the Book of Poetry makes reference to "cheng bi suo fang", which means that King Xuan Wang of the Zhou Dynasty built a small section of wall against attacks by the Xiangyun tribe in 9th century B.C. This small wall coordinated with beacon towers in transmitting military intelligence.

Zhou You Wang, another king, was reported to have made fun of principalities by lighting the beacon fire to please his lover in the absence of real attack. It angered the principalities so much that when the enemy came and the fire was once more lighted, no one came to his help. The king was killed. This episode reflects the state of affairs then.

By the Spring and Autumn Period it was the Chu state which was first to construct several hundred km long wall in mid-7th century B.C., referred to as fangcheng (square city) in Chinese literature. This fangcheng was said to be in the intersection between Hubei, Shaanxi and Henan provinces. It is to be regretted that the ruined site of this wall has not been located to this date.

Afterwards border walls were built by the states of Qi, Wei, Han, Zhao, Yan and Qin. Individual smaller states, such as Zhongshan (in what is now Hebei province) also built long wall to defend themselves. Historians call this principality long wall for the defense of each feudal state. About 4th century B.C. the northern parts of the three principalities Of Yan, Zhao and Qin happened to border on the nomadic Xiong Nu and Dong Hu, with whom frequent contacts had been kept and border incursions frequently occurred by the nomads, which seriously disturbed normal life in the area. "Long walls to defend against the Hu" were thus constructed by the three principalities in the north. They form the main foundation of the long wall of 10,000 li by Qin Shi Huang-- first sovereign of Qin. These earlier walls, built sometimes in the east, sometimes in the west, sometimes in the south and sometimes in the north, were unconnected with each other. They were far inferior to the wall built by Qin Shi Huang. They are called pre-Qin walls by historians.

In 221 B.C. Qin Shi Huang annexed six principalities and established the first centralized feudal nation in Chinese history. To protect the security of China, safeguard the people and production in the central plain, and ensure a stable life, Qin Shi Huang at once sent his senior general Meng Tian (accompanied by Prince Fu Su who acted as supervisor) with a force of 300,000 to attack the Dong Hu and Xiong Nu in the north. At the same time, the senior general linked up the earlier northern walls of Yan, Zhao and Qin states. Here built

the walls, by making additions and expansions. The walls extended from Lintao in the west to eastern Liaoning in the east, totaling over 5,000 km (10,000 li). The most magnificent engineering project of ancient China--the imposing long wall of 10,000 li thus made its appearance in North China.

Qin Shi Huang ordered the dismantling of defense walls formerly erected by the principalities together with passes and strategic barriers to prevent the reemergence of separatist states.

Qin Shi Huang made an inspection tour in the eastern sea, arriving at Qinhuangdao. A stone tablet called Jie Shi Ming in the island makes mention of this fact. A passage of the inscription says that the principalities having been annexed, China was at Peace. Interstate border walls had been destroyed. The strategic barriers were finally lifted.

This passage is a reference to the dismantling of long wall along with strategic passes in various former principalities.

Since the Qin, various dynasties, including Western Han, Eastern Han, Northern Wei, Eastern Wei, Northern Qi, Northern Zhou, Sui, Liao, Jin and Ming, rebuilt the Great Wall on extensive scale and extended it. The engineering projects undertaken in the Han and Ming dynasties were the largest. The Han Dynasty Great Wall with its system of fortifications and beacon towers exceeded 10,000 km in length from Dunhuang, Gansu Province westward to western Xinjiang Region.

Tang, Yuan and Qing dynasties, which did not undertake construction of the Great Wall on any large scale, nevertheless repaired the passes and fortresses and made use of them, too. It may be said, therefore, that the Chinese governments never interrupted defense work over the Great Wall in the course of more than 2,000 years.

Ming was the last dynasty which undertook extensive repair and constructions of the Great Wall on large scale. This was the peak in the development of construction project of the Great Wall with neatly arranged blocks of stones, faced with bricks as the structure of the wall along key sections in the east, making the Great Wall more solid than ever.

Beginning from 1368 or the first reigning year of Hong Wu, Zhu Yuanzhang, the first emperor of the Ming Dynasty, sent senior general Xu Da to rebuild the Juyongguan Pass, a strategic fortification outside Beijing. The building of the fortification lasted 200 years. It was basically completed during the reigns of Long Qing and Wan Li. Construction of fortress in the pass, mountain pass, stone blocks, blockhouses, etc. lasted until the end of the reign of Chong Zhen, the last emperor of the said dynasty.

The Ming-Great Wall started itself from the mouth of the Yalu River, extending westward to Qilianshan (mountain). It totals 7,300 km or more. The section between Shanhaiguan Pass and Juyongguan Pass, north

of Beijing, seat of royal government, was an important defence system, built into a very tall and solid structure--more so than in other parts.

In the wake of the development in politics and in military situation in early-Qing Dynasty, especially during the reign of Emperor Kang Xi, it was decided not to repair or rebuild the Great Wall, except to repair certain city wall within pass as well as mountain pass along the unified wall for purposes of inspection of the whole defence work.

A policy of control through conciliation was adopted by Kang Xi and Qian Long's reign, whereby Mongolian and Xinjiang princes and nobles were brought under control by a show of conciliation. The Qing rulers used religion to exercise thought control over the people. This policy saved tremendous amount of expenditure which would otherwise have to be used to build the Great Wall.

The changed policy of the Qing rulers was testified by many historic accounts at the beginning of the dynasty and by the building of a huge summer resort for the emperor in Chengde, some distance from Beijing and the construction of hop lama temples elsewhere together with other political measures.

When Emperor Kang Xi inspected the eastern sea, he wrote a poem, criticizing Qin ShiHuang for building the Great Wall. In the Poem he explained the reason for his own policy not to rebuild the Great Wall. Touching on the construction of the Great Wall by Qin ShiHuang to the edge of the sea, he said "so many laborers were conscripted in pursuit of an exaggerated aim--to no purpose. The wetitleh of the people was exhausted. Yet the empire, meant to last for ten thousand years, did not last long." Thus "only great pass survives in the old site and only the surviving form makes the territory grand and imposing." The Great Wall is now only a historic relic.

The royal house of the Qing built a border wall called Liu Tiao Bian or Willow Wall to confine activities of the nomads in certain part of the territory. It repaired some parts of the Great Wall to put down insurrection by people. These, however, are in no sense the same as the original Great Wall.

The Great Wall is a product of contradictions between various ruling cliques in ancient China. It is scattered in all direction--south, north, east and west. More than 20 walls had been built in some sections as reinforcement. Prefectures and counties were set up by the Chinese government since the time of Qin Shi Huang inside and outside the Great Wall.

The Great Wall blunt during the Han Dynasty went northward beyond the limit of the Qin-wall by several hundred kilometers and even 1,000 km in some places. In Ming Dynasty Nuergan Du Si (a sort of provincial governmental institute) had been set up in a place now in the Soviet Union called Nicholayevsk, more than 1,000 km from Shanhaiguan Pass. This was a Chinese organ dealing with military and civil affairs in the

region. The Great Wall, therefore, had never been China's boundary. Nor was it a demarcation line for fixing administrative areas in China.

Solid defence, a complete network

Judging from the standpoint of modern warfare, the Great Wall can not be said to be a defence network of any great military value. Nevertheless when man's chief military weapons were the sword, arrows and bows, ge (hook weapon) or mao (spear), the situation was quite different.

The Great Wall offers excellent defence since it had been built in strategic places. It played an important role then. Many were instances in ancient times when it took a very long time to take a city or mountain pass. There were even cases when those who launched the attack had to retreat without a fight, when they saw the strong defence work of the city. In the Central Plain of China such firm and high defence work proved to be very useful to foil the attacks of mobile cavalry, which roamed from one place to another.

As a result of continuous construction and making improvement by the Ming Dynasty the Great Wall became a perfect defence network, whereby the central Chinese authority could, by means of various administrative and military levels of organization, reach the basic or grassroots military unit, down to each soldier guarding the Great Wall. The Ming Dynasty overthrew the Yuan, obtaining ruling power throughout the nation. The original rulers, however, only retreated to their former positions. They were not destroyed. This made it possible for them to make a come-back.

Under these circumstances, the Great Wall became a major security issue for the Ming Dynasty. Following the founding of the Ming Dynasty the construction work for the Great Wall was greatly strengthened and a series of military deployment made. The Great Wall was perfected, forming itself into a complete defence network or system with "nine borders and eleven fortified towns", entrusted with the defence of separate regions. This may be said to be the height of the defence work of the 10,000 li long wall. The existing mountain passes, castles and beacons are only the ruined sites of this network of Ming-built Great Wall. The book "Ming Shi" or History of the Ming Dynasty records the Great Wall in a section called "Bing Zhi" or Military Annals thus: The Yuans, having been driven back to the north, nevertheless always planned to revive their former glory. Emperor Yong Le moved his capital to Beijing, close to Mongolia on three sides.

Following the reign of ZhengTong, enemy attacks became numerous day by day. Border defence became an all important task throughout the Ming Dynasty. From the Yalu River in the east to Jiayuguan Pass in the west extending for 10,000 li, each place was defended by the military. At first, four fortified towns, namely, Liaodong, Xuanfu, Datong and Yansui were established. Since the military headquarters of Taiyuan prefecture stationed troops in Piantou and Sanbian prefecture had its administrative organ in Guyuan, Piantou and Guyuan were also called two fortified towns. This brings to nine the number of border towns.

The so-called "nine borders" means a division of regions along the Great Wall into nine sections, separately administered. Each border was a fortified town. All in all they were called major fortified towns of nine borders.

Apart from nine borders and nine fortified towns, ChangZheng and Zhenbao, northwest of Beijing, were added to answer the need of strengthening defence of the capital and safeguarding the Ming Tombs. This brings the total of fortified towns to eleven. Each fortified town exercised jurisdiction over strips of territory along the Great Wall. Garrisons were stationed. The number of officers and men was as follows.

1. Liaodong (fortified town)

The base headquarters was stationed at Guangning (what is now Beizhen, Liaoning province). Totaling 975 km the Great Wall under its jurisdiction starts from Dandong, near the mouth of the Yalu River and extends westward to Shanhaiguan Pass. Officers and men used to be 99,875.

2. Jizhen (fortified town)

The headquarters was in Santunying (what is Qianqi, Hebei province). Totaling 880 km the Great Wall under its jurisdiction starts from Shanhaiguan and extends westward to Mutianyu (now Huairou, Beijing). The full strength of the force including officers and men used to be 107,813.

3. Changzhen (fortified town)

The headquarters was in Changping. Changzhen had been added to reinforce the defence of the capital and to guard the Ming Tombs. Totaling 230 km the Great Wall under its jurisdiction starts from Mutianyu and extends westward to Zijingguan Pass. The full strength of the force including officers and men used to be 19,039.

4. Zhenbao (fortified town)

The headquarters was in Baoding, which was set up to reinforce the defence of the capital. Totaling 390 km the Great Wall under its jurisdiction starts from Zijingguan Pass and extends southward to Guguan Pass. The full strength of the force including officers and men used to be 34,697.

5. Xuanfu (fortified town)

The headquarters was in Xuanhua. Totaling 600km the Great Wall under its jurisdiction starts from Juyongguan Pass and extends westward to Xiyanghe River (northeast of Datong, Shanxi province). The full strength of the force including officers and men used to be 151,452.

6. Datong (fortified town)

The headquarters was in Datong itself, Shanxi province. Totaling 335 km the Great Wall under its jurisdiction starts from Zhenkoutai (northeast of Tianzhen, Shanxi province) and extends westward to Yajiaoshan (northeast of Pianguan Pass, Shanxi province). The full strength of the force used to be 135,778.

7. Taiyuan (also known as Shanxi fortified town)

The headquarters was in Pianguan Pass. The Great Wall under its jurisdiction starts from the banks of the Yellow River at Baode and Hequ, passes through Pianguan Pass, Laoyingbao, Ningwuguan Pass, Yanmenguan Pass, Pingxingguan Pass, Longquanguan Pass, Guguan Pass, down to Huangyuling. It totals some 800 km in length. Placed between Datong and Xuanfu within the Great Wall, this section under Taiyuan jurisdiction was sometimes referred to as the Inner Great Wall, which was mostly made of stones. Over 20 stone walls had been built in some places. The full strength of the force including officers and men reached 57,611.

8. Yansui (also known as Yulin fortified town)

The headquarters was first at Suide, but later moved to Yulinbao (or Yulin, Shaanxi province). Totaling 885km the Great Wall under its jurisdiction starts from Huangfuzhou (Fugu, Shaanxi province) and extends westward to Huamachi (now Yanchi county, Ningxiaregion). The full strength of the force reached 80,196.

9. Ningxia (fortified town)

The headquarters was in Yinchuan, Ningxia region. Totaling 1,000 km the Great Wall under its jurisdiction starts from Dayanchi (now Yanchi County, Ningxia region) and extends westward to Lanjing (now Gaolan and Jingyuan counties, Gansu province). The full strength of the force used to be 71,693.

10. Guyuan (fortified town)

The headquarters was in Guyuan county, Ningxia region. Totaling 500 km the Great Wall under its jurisdiction starts from Jingbian and connects itself with the Great Wall in Yulin fortified town. It extends to Gaolan, where it connects itself with the wall in Gansu in the west. The full strength of the force reached 126,919.

11. Gansu (fortified town)

The headquarters was in Zhangye. The Great Wall under its jurisdiction starts from Jincheng (now Lanzhou) and extends westward to Jiayuguan Pass, at the foot of the Qilianshan (mountain). It totals 800 km in length. The full strength of the force including officers and men reached 91,571.

The Great Wall of the so-called nine borders and eleven fortified towns totaled 7,300km in length, manned by a garrison force of 976,600. This figure was true for a certain specific period as duly recorded in Chinese literature. However, the actual length must have been longer. The strength of military force titleered from time to time.

Under each fortified town there were numerous lu or military subarea which varied in size according to circumstances. Each included mountain passes, castles, furnace mounds (used to make smoke for signal in case of invasion) and other defence setup. Control was exercised grade. For instance, Shanhaiguan Pass was a mountain pass under the jurisdiction of Shanhai, a stronghold of the Great Wall under Jizhen fortified town. According to Chinese literature Shanhai was made up of Nanhaikouguan Pass,

Nanshuiguan Pass, Shanhaiguan Pass, Beishuiguan Pass, Hanmenguan Pass, Jiaoshanguan Pass, Sandaoguan Pass, Sieryuguan Pass, the watchtower at Nanshuiguan Pass and watchtower at Beishuiguan Pass, plus other defence works and furnace mounds.

The Great Wall built during the Ming Dynasty had a corresponding network of military organizations, quite complete by itself. There was military order in each grade of defence work. Ming Dynasty regulations provided that he who had the overall control of one fortified town was called zhenshou (commander in chief of military force). The one who defended each in was called fen shou (or sub-commander). The one who was charged with defence of a city or castle was called shou bei. Those who defended a city with the chief officer were called xie shou. The commander of the garrison was called zongbing. His deputy was known as fu zong bing. The next inferior officer was can jiang. Still next was you ji jiang jun.

These officers were nominated and selected from dukes, marquises, earls, military governors of province, and provincial military commanders, etc. Zong bing (zhen shou) was a military officer. The governor was a civil official. The officers from zong bing downward had charge of routine defence works as well as building, repair or maintenance of the Great Wall, mountain passes, furnace mounds, etc.

Defence work of the Great Wall during the Ming Dynasty was divided into architectures of differing grades, classes, forms and uses, such as fortified town, castle, garrison city, mountain pass city, stronghold city, city wall, watch tower, wall tower and furnace mound (for making smoke as signal in case of invasion). These architectures are connected with each other and coordinate with each other, forming a complete network of defence projects. Senior generals Xu Da, Feng Sheng of the early Hong Wu's reign and Tan Lun, President of the Board of War and Qi Jiguang, commander of Jizhen fortified town (during the reigning years of Long Qing and Wan Li) contributed a great deal in the construction of the Great Wall.

Mountain pass city

The mountain pass city is a major defence stronghold along the Great Wall of the Ming Dynasty. During emergency top generals and high-ranking officers were stationed in the mountain pass city, whose location was considered to be of great importance. In order to control strategic point, using fewer soldiers to ward off the attack of large number of invading enemy, mountain pass city had to be built on top of mountain, cliff, deep gully or gorge. Sometimes it was in the bend of a river or gulf. It could also be a place where mountain and the sea meet. The right selection of the location, therefore, is all important and may lead to excellent result. If the mountain pass city is guarded by even one man, (provided the location is good) he can ward off the attack of 10,000 men, wanting to storm the city.

Mountain pass city constitutes a defence system by itself. The Juyongguan Pass, for instance, had been built in a 15-km gully surrounded by many mountains, where successive lines of defence had been set up. To the

south is Nankou Pass. To the north are Shangguan Pass and Badalingkou Pass (Beikou Pass). Beyond Badaling are outposts: chadaocheng (city built on forked path), furnace or beacon fire site, city wall, etc.

Shanhaiguan Pass is an even more well-integrated defense system. The Great Wall winds its way down the Yanshan (mountain) and extends to Laolongtou, where the sea and the mountain meet. The mountain pass city is located just in the middle. In front of it is Luocheng, which forms a double layer defence line. Beyond are the Weiyuancheng and Balibao outposts. Nanyicheng is on both sides of the pass. To the seaside is Ninghaicheng. To the west is Xiluocheng. Both inside and outside the Great Wall we find many castles and beacon fire sites, well connected with Shanhaiguan in an integrated manner. The defence work is thus complete and well-planned.

The Wall

The wall is the main construction work, connecting strategic mountain passes and beacon fire sites into an integrated unit. The wall is built in accordance with the terrain. Its width and height vary from place to place. Take Juyongguan Pass and Badaling for instance. The body of the wall here averages 7 or 8 meters in height. It is 6 or 7 meters thick at the base. The top is 5 meters wide. The wall is therefore narrow at top and broad at base.

Inside the body of the wall, not far away, is an arched gate, where stone or brick paved steps lead one to the top. The top is built with three or four layers of bricks, paved into road, 4-5 meters wide, which accommodates five horse or 10 persons abreast. A brick wall--one meter high, is erected inside the wall top, known as *nverqiang* or parapet. Outside is a 2 m high battlement, each of which contains a small opening on top to watch over the movement of approaching invaders. Another small opening is found below from which arrows can be discharged. On the wall in the section of Shalingkou Pass (Jinshanling), Luanping, Hebei we find layer and layer of battlements on two sides of major watch towers, where observatory openings and arrow-discharging openings are found. This is used to enable defenders to climb to the top of the wall and make a last-ditch stand in case the enemy has broken through the defence. To avoid washing away of wall by rain, drainage and spouting openings have been installed.

On the wall we find several types of towers. One is called *qiang tai*, as high as the wall itself. It is projected prominently outside the wall, whose outer edge is a battlement. On the tower is a berth, which provides shelter to pillaging soldiers from wind and rain. Another is called *di tai* or *di lou*, a two-storied building. On the ground floor there are a dozen or so arched rooms -- built of bricks and used as barracks for an equal number of soldiers. In giving battle many soldiers can take cover here during offensive. The upper floor consists of battlements and rooms built of bricks or combining of wooden pillars and brick walls. Beacon fires can be lighted here, as there are facilities for this. A third type is called *zhan tai*, located in strategic places. Considerable supplies of arrows and bows, cannons and ammunitions are stored here. Defense works surrounding the towers are more complete and can enable soldiers to put up a strong resistance.

The high "fence" watchtowers are a new addition to the Great Wall, previously unknown. They were built by patriotic generals Tan Lun and Qi Jiguang. During the JiaJing reigning years, Tan Lun, then prefecture magistrate of Taizhou, Zhejiang province and later governor of Fujiang, successfully defended China's coastal areas against invading Japanese forces with the help of Qi Jiguang, his chief officer.

The book "Ming Shi" or History of the Ming Dynasty gives an account of one Wu Shilai, petitioning the emperor to appoint Tan Lun and Qi Jiguang to train Chinese soldiers. Tan Lun was given the post of commander of Jizhen, Liaodong and Baoding forces, where as Qi Jiguang headed the training corps of 30,000 soldiers from Jizhen, Zhending, Daming, Jingxing and elsewhere.

The same books says that Emperor Mu Zong entrusted all military affairs to Tan Lun, who inspected the Great Wall. Tan Lun and Qi Jiguang outlined a plan to build 3,000 watchtowers from Juyongguan Pass to Shanhaiguan Pass in order to gain control over vital points along the defense line.

When the watch towers had been completed, 9,000 soldiers from Zhejiang province were stationed on the Great Wall. The border defense having thus been greatly strengthened, the enemy was no longer able to harass the border region.

Qi Jiguang describes in more detail in a book on military training about the building and use of watch towers. Previously, said Qi, the Great Wall had been built rather thin and low and had become dilapidated. Small stone and brick terraces were unconnected with the wall. Soldiers had to stand under glaring sunshine or in frost and rain and were given no shelters. It was difficult to send military supplies during an emergency. The supplies could not be stored in the wall, as no such facilities existed. When enemy came in great number, they could shoot arrows at the soldiers on a higher position. The soldiers could hardly stand on the top of the wall. If one wall was breached, the soldier had to kneel as he could barely hold ground. In view of this it was imperative that watch towers with spacious rooms had to be built to block enemy from further advance. The watch towers were three or four zhang in height. The width was 12-18 zhang. The watch towers were connected with each other and could send reinforcement to neighbors. Watch towers were like fences standing on the Great Wall.

According to Qi Jiguang the method of building watch towers was like this: There was to be a base, which was level with the edge, stretching out one zhang and five chi outside and five chi inside the wall. The middle layer was empty with windows for discharging arrows. The upper floor was a lookout turret, surrounded by battlements. The soldiers were to be hidden inside. The lower layer was the place where cannons were to be fired on approaching enemy. The enemy were now held at bay: their arrows could not reach the soldiers on top of the wall. Their cavalry dare not approach the Great Wall.

Each tower was headed by an officer, who coordinated defense. The tower itself had a head officer and an assistant, in charge of logistics. On both sides were 30-50 soldiers. For every five watch towers there was a

higher ranking officer. A still higher officer was in charge of ten watch towers. The military was well organized. "Ming Shi" has a chapter on the biography of Qin Jiguang which says that since Jia Jing's reign there were no towers even though the Great Wall had been built. Qi Jiguang suggested to the emperor that towers should be built on the wall, with battlements all around. Each tower was to be five zhang in height. It was a tri level, empty inside. One hundred soldiers could sleep in it, with provisions of food and supply of weaponry. Qi Jiguang said that plan for the construction of 1,200 towers should be drawn up by engineering corps.

A recent study of actual sites reveals that over 1,000 km-Great Wall from Shanhaiguan Pass to Juyongguan Pass the structures of thousands of fence watch towers coincide with the description given in literature. In watch towers tablets have been found with writing of Tan Lun and Qi Jiguang.

Similar towers are found in the section between Changzhen and Zhenbaozhen, built according to plans conceived by Qi Jiguang.

Beacon fire site

These were known by a score of names: feng sui, feng tai, yan dun, lang yan tai, ting, sui, etc. They were known as ting or sui or ting sui during the Han Dynasty. In the Tang and Song dynasties they came to be called feng tai. But they were known as yan dun or duntai in the Ming Dynasty.

Beacon fire site is a place to make smoke or fire as signal to warn people of enemy attack during day or night. It is an independent high platform, with attached houses and facilities to make smoke or start fire, either on top or below the raised platform. Underneath the platform is the sleeping quarter for soldiers, stable and warehouse. Walls surround houses. The building materials and the structure of beacon fire site are the same as for other defense works. They are either built of stones or rammed earth or bricks and stones. They are roughly divided into four types: one type is built on two sides, close to the Great Wall. Another type is built outside the Great Wall, extending to faraway place. A third type is linked with royal prefecture, royal county or the capital. The fourth type is linked to neighboring prefecture, county, mountain pass or fortified town in the military zone.

It is said that using dung of wolf to make smoke, the smoke can remain in the sky for a very long time. Therefore beacon fire site is sometimes known as wolf dung fire platform. Many passages in Chinese literature say "all over there are wolf dung smoke." Which means that the war has spread to many parts of the country.

Beacon fire site is a very important defense installation of the Great Wall, forming itself into a complete network at early stage. Definite provisions have been laid down governing the selection of site, architectural form and the making of smoke or fire. The book "WuJing Zong Yao" written by Zeng Gongliang of the Song

Dynasty, has a detailed account, in which he quoted Tang Dynasty beacon fire system and referred to a passage from chapter "Shou Ju Fa" in the book "Tong Dian" by Du You of Tang Dynasty.

According to Tang Dynasty provisions there must be a beacon fire site every 30 li to be erected on mountains. In case too many mountains block the view, the distance can be titleered. The beacon fire site should be located in a spot where three such sites come into view of each other. In border areas beacon fire site should be surrounded by protective walls. A key person is to be in charge, aided by a deputy. Nine persons are to work in the site. They should be chosen from among those who have families. The deputy supervises over the nine, who keep watch on 'enemy movement by turn day and night. One of them is in charge of the tally (used as proof for transmitting intelligence), who is relieved every two years. Smoke is made during day while fire is made at night. A lookout should be maintained to watch the tube to make sure that there is a signal coming out from the beacon fire site.

In making response fire is to be made within the furnace to enable smoke to rise above the chimney. Fuel wood should be placed above the earthen furnace. In case only one fire is needed one man should be in charge for lighting and extinguishing it. In case of two fires, two men are to be in charge. In case of three, an equal number of men will be put in charge.

Should fog and cloudy weather occur and smoke can hardly be seen from afar, messenger should be sent to inform the next station. When weather becomes clear, smoke is to be made according to regulation. When 50-500 enemy cavalry or infantry invade the territory one column of smoke is to be made. When 500-3,000 enemy come two columns of smokes are to be made. Should 500-1,000 cavalry drive southward, three columns of smokes are to be made. Should 3,000 cavalry come, three columns of smoke are to be made. Burning four smokes mean the approaching enemy are numbered over 10,000.

One column of smoke is a signal the prefecture and county under whose jurisdiction the furnace is placed. Two or more columns of smoke is a signal to the capital. The prefecture, county and township from which the signal is sent should dispatch messenger to inform the royal court. If the enemy retreats, after making the smoke as a direct signal to the capital, one column of smoke is again to be made to signal retreat. The enemy invasion is signaled by making smoke three times and extinguishing it three times. To signal that all is well two columns of smokes should be made and extinguished.

According to the same chapter of the book "Tong Dian": beacon fire site is located in strategic spot on mountain. It can also be built on elevated plain, if there is no mountain. Below the site is a stable for horses and sheep.

The raised platform is five zhang in height. The base is two zhang in width. The top is one zhang. The platform is round in shape. A round house covers the platform. The house measures one zhang six chi. It projects out three chi on one side, covered with planks.

In the house are installed three furnaces, which project outside. Three more furnaces are built below. The furnaces are plastered with lime. Three places for fuel wood are erected. There are three ropes for lighting the fire. A small ladder is used. Windows are built on walls to watch enemy movement. A firing tube, flag, drum, two bows, a driving device for starting fire on flint, stones, wood, water jar, food provision, hemp, rocket, common artemisia, wolf dung, cow dung, etc. stand by.

A fire is made in the morning and evening to signal all is well. Should this "all is well" signal fail to be lighted, the beacon fire site is regarded as overrun by the enemy.

Each beacon fire site is manned by six persons, who keep vigil day and night by turn. The head of the crew is a man who knows military intelligence and sends or receives messages.

As a result of political and military development the Tang Dynasty did not adopt defensive measures and did not build the Great Wall to any great extent. Yet it did built many military townships. It summarized the beacon fire system of the Spring and Autumn Period, Warring States Period, the Qin and Han dynasties.

The Tang Dynasty introduced a complete beacon fire system, incorporating previous alarm signal systems. The Tang Dynasty system, including method of installation, architectural form, organization of beacon fire, kind of fire, regulations and methods of making smoke and fire, regulation of alarm raising and changing of guards, transmitting alarm signals, secret code -- all these were inherited and used by later generations. Construction project of the Great Wall under the Ming Dynasty saw great improvement. The system of beacon fire site, the making of smoke and fire, etc. were also improved. Cannons were fired as an additional signal. Sulphur and stiltetre had been added to make it more effective.

According to regulations laid down in 1466 or the second year of Cheng Hua, Ming Dynasty: cannon shot was fired once and one beacon fire made when 100-200 enemy troops advanced on the border region. Two shots were fired and two fires lighted when 500 enemy troops invaded the territory. Three shots and three fires were discharged and made in case of attack by 1,000 enemy troops. Four shots and four fires were discharged and made when 5,000 enemy force approached. Should over 10,000 enemy troops encroach upon the territory, five shots were to be fired and five beacon fires made.

Sulphur and stiltetre having been added, the signals and military intelligence were sent more accurately and quickly.

On account of the importance of military intelligence beacon fire sites were strictly managed during each dynasty. Soldiers of the beacon fire sites were not allowed to leave the site without permission for fear of failing to send military intelligence.

A slip of bamboo (written by someone with a note in Han Dynasty) discovered in Dunhuang says that soldiers in the border region are not allowed to leave even an inch of ground in the beacon fire site. A provision laid

down in the second reigning year of Cheng Hua says that it is deemed necessary to check on the soldiers in the beacon fire site and to provide adequate supply of dry hay. Constant watch is maintained day and night. During emergency smoke must be made by day and fire by night as 'signal of military intelligence. This must not be violated. In case of victory those who send intelligence quickly will be rewarded. Those who fail to do so will be prosecuted under martial law. It can be seen from this that reward and punishment are duely maintained. The management of beacon fire site can be said to be very strict indeed.

Great Wall -- result of hard labor and wisdom of Chinese people

Casting a backward glance on the history of the Great Wall we find both the ruling cliques of Han nationality and those of fraternal nationalities undertook to repair the Great Wall. Preliminary estimate reveals that since Qin Dynasty, Han, Sui and Ming among Han nationality ruling cliques had a hand in constructing the Great Wall. Among fraternal nationalities, Northern Wei, Eastern Wei, Northern Qi, Northern Zhou, Liao, Jin, etc. also repaired the Great Wall. Even Yuan and Qing dynasties repaired mountain passes and small sections of walls. In a sense the wall can be said to be the result of the sweat, blood and wisdom of the Chinese people.

The labor force for the building of the Great Wall is mainly derived from the following sources as we learn from Chinese literature: Garrison force is the main force. Qin Shi Huang(the first emperor of Qin Dynasty) dispatched senior general Meng Tian to construct the Great Wall with a force of 300,000 men after defeating the Xiong Nu. It took nine years to complete the project.

Conscripted laborers. In 555 A.D. or the sixth reigning year of Tian Bao, Northern Qi Dynasty as many as 1,800,000 laborers were conscripted to repair a 450 km-long Great Wall from Xiakou Pass, Youzhou (now Nankou Pass, Juyongguan Pass, Beijing) to Hengzhou(now Datong, Shanxi province).

Convicts and persons sentenced to exile. In Qin and Han dynasties a special form of punishment was meted out to persons (convicted of crime) to build the Great Wall. Pei Yin, who wrote commentaries on "Shi Ji" or Record of the Historian quotes Ru Chun as saying that persons whose hair were shaved off and wore iron rings on neck were sent to build the Great Wall. These men had to watch over invading troops by day and build the Great Wall by night. The punishment lasted four years. Other forms of labor service set up under different names.

Experience in building the Great Wall over long Period of time by laboring people and strategists in early days reveal that to achieve the purpose of defending the country and economize on manpower and materials a good way is to utilize terrain and build massive fortification, mountain pass and beacon tower in strategic places. This is entirely in keeping with the principles of military science. This is called using terrain and strategic places to contain nomadic invaders. The massive fortification between Liaodong (eastern Liaoning province), Shanhaiguan Pass and Juyongguan Pass were constructed along mountain ridges. Rocks

and steep cliffs were therefore utilized. One look from the outside at many parts of the fortification seems to suggest that the Great Wall was located in very dangerous place indeed. Yet inside we find the walls were in level and low place. Defending the barrier the soldiers can easily repulse invaders and ascend or descend the wall without difficulty. It is easy to transport military supplies, too. Some cliffs are used as walls, known as cliff wall and some steep places are used as walls, too. The enemy can hardly be expected to climb such precipitous ramparts. When the Great Wall reaches a big river or lake the natural barrier is again used for strategic purpose.

Stress is made on the choice of terrain in constructing mountain pass, beacon fire site, smoke-making platform and castle in order to gain strategy and save manpower and materials.

"To suit local conditions and use locally available materials" -- this is an experience gained in the course of construction. Since there are mountains, cliffs, deserts, loess regions, etc. a vast amount of materials are to be used. To avoid costly transport over long distances, builders and strategists mainly use earth and stone before using bricks. In places where stones are found in abundance, such as mountains and areas full of stones, stone is used. In loess regions rammed earth is used. In Yumenguan Pass and in Gobi Desert, Xinjiang region where only sand and pebbles are found but not stone or earth, walls of sandy soil are supported with layers of tamarisk twigs and reeds. The Great Wall built with just such materials have been preserved to this day in ruined sites in spite of the fact that over 2,000 years have elapsed.

Blocks of stones faced with bricks are used to build the Ming Great Wall -- another example of using local materials. In tablets on Juyongguan Pass, Badaling and elsewhere we find accounts saying that bricks and stones are obtained locally by setting up kilns to make the building materials or from quarry.

Different groups responsible for construction of different sections of the wall

The construction of the Great Wall was by different groups of men held responsible for a certain section. The responsibility was clear and so was the work assignment, yielding excellent result.

The section between Wuwei, Zhangye and Jiuquan in the Gansu Corridor was constructed by local prefectures, which subdivided the section and held men under their command responsible for the construction project.

The Ming Dynasty Great Wall was constructed under commanders of fortified towns, who subdivided the construction project into "in" and mountain passes. For major construction work prefectures, fortified towns and even the central government mobilized troops and conscripted laborers to do the job from different parts of the country.

A stone tablet giving an account of the construction project at Badaling during 1582 A.D. or tenth reigning year of Wan Li says:

Lu Wenyuan assumed command over the project from Juyongguan Pass to Shifosi, measuring 75 zhang and 2 chi long. A stone arched gate had been built. The project was completed by the army.

Here is a list of names of commanding officers responsible for construction work:

Liu Youben, commanding officer of Jinan Wei

Liu Guangqian, commanding officer of Qingzhou Zuo Wei

Zong Jiguang, commanding officer of Jinan Wei

Zhang Tingyin, subordinate officer of Feicheng Wei

The following commanding officers were responsible for kilns and quarries:

Zhao Congshan

Liu Yanzhi

Song Dian

Bian Yingchun

Zhao Guanghuan

Construction was completed in the tenth month of the tenth reigning year Of Wan Li.

A section of only 70 zhang (about 200 meters) and an arched stone gate were built by several thousand soldiers plus even more conscripted laborers, from which we get an idea of the difficulty of the building process.

There are many such stone tablets along the Great Wall. In a section 800 km long from Mutianyu, Beijing and in Jinshanling, Luanping, Hebei province and way down to Shanhaiguan Pass thousands of stone tablets inscribed with the names of Qi Jiguang and others are found. Practically every watch tower and every section had a tablet, which is a record, saying that certain people were responsible for the engineering work and for its quality.

In Mutianyu another tablet gives an account of an officer who had been wrongly charged for embezzlement. It was later found that the quality and length of the constructed wall were in keeping with the required standard. The tablet was therefore erected to clear him of blame or guilt.

The difficulty involved in construction work is tremendous, considering that there are so many mountains and gullies, deserts and pastureland over which work was carried on without the aid of machines and modern transport. Long slabs of stones (three meters) weighing over 2,000 catties had been constructed on Juyongguan Pass, which were along very steep mountain ridges. Tourists of today have a bad enough job in climbing the precipitous steps. One can imagine the vast difficulty in transporting many such stones and bricks (weighing scores catties) as well as massive quantities of lime up the mountains. The Great Wall is therefore indeed an engineering feat, which commands our respect.

According to records and legends there are three kinds of methods for transporting building materials:

1. Transport by manual labor

Bricks, mortars and stones were carried on the back of man, by means of baskets, one piece of long Pole, etc. Men stood in a line to pass the material from hand to hand. This was done in narrow pathway to avoid people bumping into each other and to raise efficiency.

2. Transport by simple mechanical means

Handcarts, rolling logs, prizing, etc. were used even in those days. On mountain tops windlasses were installed, hoisting huge stones up from below. Cableways were another device, through which bricks, mortars, etc. were sent in basket. The cableway was made by fixing cables on two sides of the valley or gully.

3. Draft animals

Sheep and donkeys, which are good mountain climbers, were used to transport goods. Bricks and mortars were carried in baskets by donkeys. Bricks were sometimes tied to horns of sheep, which were driven up the mountains.

The techniques of building bricks, stones, arched doorways, mortars, using a string with a brass knob on end to find level line -- these proved to be excellent devices. Judging from the fact the Great Wall still stands today-- 500 years after the Ming Dynasty, as a massive and magnificent structure it is a reflection of the excellent work of earlier builders, who commands our admiration.

We may therefore say that every brick, every tile, every piece of earth, every stone had been built with the labor of the people. The massive construction project represents the ingenuity, wisdom and perseverance of the Chinese people in conquering difficulties.

China's cultural treasury and great historic monument

From the time when it was first built to its gradual perfection and improvement and finally to the fulfillment of its historic mission as a defense line, the 10,000-li long wall saw the rise and fall of feudal China. The defense network is a monument of history embodying the labor of various ethnic groups of people over a period of 2,000 years.

Apart from its role of defensive system the massive structure played a positive role in fostering the political and economic development as well as cultural prosperity in the northern region of China (including China's northwest and northeast) and safeguarding communication between east and west.

Before it came into existence the population along the Great Wall had been sparse and the land idle. Since the time of Western Zhou Dynasty land was brought under cultivation. The area was politically administered in addition to being a military installation. Twelve prefectures were set up by Qin Shi Huang (the first emperor) -- Longxi, Beidi, Shangjun, Jiuyuan, Yunzhong, Yanmen, Daijun, Shangu, Yuyang, Youbeiping, Liaoxi and

Liaodong, which managed political and military affairs in the region placed within the territory under control of the centralized Chinese authority.

Emperor Han Wu Di built the Great Wall in Gansu Corridor and at the same time setup four prefectures: Wuwei, Zhangye, Jiuquan and Dunhuang, regarded as areas of importance under the centralized government.

These political measures played a positive role in fostering the development of China's multi-national state. To solve the problem of military supply for the garrison forces stationed along the Great Wall, a system was developed whereby garrison troops or peasants opened up wasteland and grew food grains, which developed the economy of the north region of China to a very great extent.

Actually the policy had been started by Qin Shi Huang, who established prefectures and migrated people to the border area. The policy was further pursued under Western Han Dynasty, which built more walls and opened up wasteland by garrison troops. Upon the recommendation of Sang Hongyang, Chao Cuo, Zhao Chongguo, emperors Han Wu Di, Han Zhao Di and Han Xuan Di pursued the same policy. Many tracts of land along the defence barrier and further afield were opened up by garrison troops and emigrant peasants. Waterconservancy projects were undertaken for irrigation purpose. This was a policy of preparing for war through farming.

Zhao Chongguo petitioned to the emperor, saying that by opening up land within the defence barrier a lot of labor could be saved, while the troops could still be used to defend the border. This means that not only military supplies had been saved but that it was good for national defense.

The same policy was pursued in vassal states in the Western Regions, which extended to Cheshi, Quli and Chigucheng (in what is now the Issyk Kul Lake in the Soviet Union).

As a result of this policy diligently pursued by the Western Han Dynasty the production in vassal states in the Western Regions became greatly developed. The land was opened up by either the army or the peasants. This policy of defending the country and developing production has been inherited throughout the dynasties. It was practiced in areas outside the Great Wall and played an excellent role in developing wasteland and backward regions of China.

There was hardly any culture at all in the region along the Great Wall in former days. It was the military and administrative personnel, of fitters and soldiers of the garrison force. And masses of people who came to open up the wasteland that brought culture from the Central Plain and other parts of China. This fostered the inter flow of culture among ethnic groups and enriched their culture.

In 1971 an Eastern Han Dynasty mural grave was discovered in Helingeer, Inner Mongolian Autonomous Region. The excellent murals described the occupant of the grave travelling from Juyongguan Pass to Inner

WildGreatWall Adventure Tours

Watsapp/Tel: +86 18510254530

E-mail: wildgreatwall@gmail.com

Website: www.wildgreatwall.com

Mongolia when he was alive. This is proof of enriched cultural interchange between the Central Plain and the Great Wall region.

The Hexi Great Wall with its beacon towers and fortified towns set up in the Western Regions by Emperor Han Wu Di two centuries B.C. played a major part in safeguarding East-West communication route, developing economy and trade with various European and Asian countries.

Two thousand years ago silk products from China were shipped through the Silk Road, which passed through Kangju, Parthia and Syria, hence to countries along the Mediterranean Sea. Chinese silk products enjoyed a tremendous reputation in the international market even then. The Silk Road starts from Changan and extends over 10,000 km. It measures some 5,000 km within the territory of the Han Dynasty. After entering Dunhuang, the Silk Road is divided into southern and northern routes. The southern route passes through Loulan, Hetian, Shache, Shule (now Keshi, Xinjiang), Taohuai, Guishancheng, Ershicheng, arriving at Darouzi and Parthia (now Persia and Iran). Continuing westward the route ends in Tiaozi (now Iraq) and Daqin (Roman Empire along the Mediterranean Sea). The northern route travels from Dunhuang, passing through Yumenguan Pass and extends to Cheshi, Yanpeng, Qiuci, etc. It meets the southern route at Shule. The ruined site of this 5,000 km Silk Road within Eastern Han Dynasty territory is along the Great Wall and its many beacon fire sites. The ruined beacon sites still stand to this day. In them and in ancient tombs many wooden strips and writings on silk, seals, and silk and hemp ropes have been found. By the same road woolen textiles, melons, fruits (including grapes) from Western countries were shipped to Changan and various places in China. Art and culture were exchanged via this road as well. Buddhism, which came to China via the Silk Road over 2,000 years ago, exerted a strong impact on ancient Chinese social ideology. Many art treasures are left standing today along the same ancient road: Maijishan Grottoes, Binglingsi Grottoes, Dunhuang Grottoes in Gansu province, Kumutula Cave of Thousand Buddhas and Kezier Cave of Thousand Buddhas in Xinjiang region, etc.

Murals, Buddhist statues and carvings, which are artistic treasure in cultural exchange between China and other countries, reflect great glory and splendid history of this passageway East and West.

The Great Wall is a yardstick of history. It is also a source of reference to scientific research. For instance the Yellow River valley, through which the massive barrier passes, is the place where the river changes its course and deserts expand. Scientists of historic geography study the changed course of river by relying on the yardstick of the wall, which has its exact dates and locations. The information is therefore a guide to water conservancy project and reclamation of desert.

China is a nation where earthquakes occur rather frequently. Many sections of the wall happen to be located in faulting positions. Since each earthquake leaves traces of rupture and change of position, the Great Wall is a valuable source of reference to the study of the frequency of earthquakes and measures against earthquakes.

The immense barrier an epic

Tens of thousands of writers have praised it in classic Chinese literature since ancient times -- in these, chronology, poems, and lyrics, pairs of scrolls written with couplets, novels, and legendary tales. Poems dedicated to frontier fortresses with the Great Wall as the theme are grand and heroic, imbued with a spirit that can conquer mountains and rivers. They rank as important literary works. The poems by Cen Can, Gao Shi, Wang Changling and Wang Wei are popular and read by many readers in later generations. Military writings and political essays about the Great Wall constitute major works in ancient Chinese political and military science or history. They deserve to be studied and are useful references.

Socialist new China has emerged like the red sun in the east. A nation with separatist regimes and torn apart by rival principalities among various ethnic groups, due to contradictions among different power groups, is gone forever. The Great Wall is a symbol of diligence, labor and will power of different ethnic groups. In order to protect the Great Wall -- a creative work of ancient laboring people of China and a precious historic relic, over 100 sections of the Great Wall have been declared under protection in various provinces, cities, autonomous regions and autonomous cities. In 1961 the State Council declared Shanhaiguan Pass, Cloud Terrace of Juyongguan Pass, Badaling, Pingxingguan Pass, Jiayuguan Pass, which are famous city walls and mountain passes as key historic relics under state protection. Special departments have been set up to preserve and manage these major historic monuments.

New cities, factories, farms, pastureland, schools, hospitals and living quarters now standing formerly sparsely populated, backward, and poverty-stricken areas along the Great Wall. Mountains are now forested. Oases spring up in deserts. Wasteland is turned into good farming areas. Either side of the Great Wall now wears a new look. The whole scene is one of prosperity. The ancient Great Wall is even more imposing and picturesque today than ever before.

Love China, repair her Great Wall

Three hundred years have elapsed since the Qing Dynasty ceased to repair and reconstruct the Great Wall, which also ceased to be maintained in the same span of time. Three hundred years of attack by rain and wind and destruction by man have reduced the Great Wall into a rather dilapidated place and into a state of decay by slow process.

In 1952 soon after liberation the Chinese government began to appropriate funds to repair the massive ancient architecture of the nation, which was listed as China's major repair project.

Juyongguan Pass, Badaling and Shanhaiguan Pass were first to be repaired. Jiayuguan Pass was later added in the list for repair. The three passes were opened to tourists from abroad and the nation, who number by tens of thousands. This has had a meaningful impact.

However, repair is a tremendous engineering task. It is impossible within a short period of time to meet the need of maintenance and repair of the wall and of increased tourism by solely relying on government fund. The section in Badaling is so crowded today that it is difficult indeed to accommodate a great influx of visitors.

Guided by the policy to open up China to western countries and to enliven the domestic economy, the Beijing Evening News, Beijing Daily and Economic Daily initiated a proposal in July, 1984 to start a campaign to solicit fund to repair the Great Wall. This is as it should be. Many important historic monuments have been built or reconstructed by this means -- with the help of personages in various fields and professions and by ordinary persons. The proposal soon won approval and support from Chinese and foreign personages, experts, scholars, leadership of the Party and government as well as practically every trade.

Comrades Deng Xiaoping, Xi Zhongxun and others wrote inscription "Love China Repair Her Great Wall." Donations soon got underway. Friends from over 20 countries, including U.S.A., Japan, U.K., France and Italy, compatriots from Hongkong and Macao, Chinese overseas donated to the funds enthusiastically.

Various ambassadors in Beijing and embassy personnel contributed a great deal towards this campaign. Friends of China regard the Great Wall not only as the pride of one nation but also as the cultural treasure of mankind. It is a tie that links the hearts of Peace-loving people of the world.

Warm response from all quarters -- the whole Chinese people, overseas Chinese from abroad and friends of various countries of the world prompted the responsible departments in Beijing to start a survey and undertake reconstruction. On the eve of China's national day in 1984 the first phase of reconstruction at Badaling was completed. Tourists now can ascend the No. 7 (northern) and No. 8 (northern) watchtowers, 887.6 meters above sea level, to enjoy a better view of the massive wall. The second and third phases will be undertaken in succession.

Similar campaigns are underway for repair of key sections of the Great Wall in other provinces and cities meanwhile. Reconstruction is slated to start mainly as follows.

Mutianyu

Situated in Huairou County, 72 km northeast of Beijing, the Great Wall winds its way on the Yanshan Mountain, 20 km north of Huairou. Mutianyu stands in the east opposite Badaling, which is in the west. It connects Gubeikou Pass in the north and Huanghuacheng in the west.

Badaling, Juyongguan Pass, Zijinguan Pass and Daomaguan Pass used to be three main barriers northeast of Beijing during the Ming Dynasty. The Great Wall was extended to this place from Shanhaiguan Pass in the reigning years of Hong Wu. The section was completed by the reigning years of Wan Li.

Magnificent in appearance the Mutianyu Great Wall has been preserved intact. Here vegetation is abundant and fruit trees abound. The scenic beauty in spring and autumn is excellent. It is like a garden on a mountain top. We find scenic spots, such as Lianhuachi(lake), Zhenzhuquan (spring) and Longtan (lake) in the neighborhood. Mutianyu is a place for tourists to go and enjoy the beauty of Chinese landscape.

In 1982 funds were allocated by government departments concerned to repair the wall. Additional funds have been provided from the donation campaign. More repairs can be undertaken on big scale. It is expected that Mutianyu Great Wall will attract even more visitors.

ShanHaiguan Pass

Located in Qinhuangdao by the Bobal Sea, Shanhaiguan is an important pass in the eastern Great Wall. It was reconstructed by the Ming Dynasty. Work continued until the end of the dynasty. The wall connects itself from the Yanshan Mountain with the sea. It provides the only and best scenery of beautiful sea and beautiful mountain in one setting. Shanhaiguan was proclaimed a key historic monument by the State Council in 1961. Construction had been launched by the historic relics departments to repair Shanhaiguan over a period of about 30 years, but only on limited scale, far from meeting the demand of growing tourism.

In 1985 the government, this time aided by private donations, started an overall repair job. From Yanshan Mountain southward to the sea at Laolongtou, scores km long Great Wall plus mountain pass and mounds are listed for repair each year. First phase repair works are now started on Ninghaicheng with donation of 700,000 yuan from Shanghai. Dilapidated city towers, corner towers and watch towers are scheduled to be restored to original shape.

Jinshanling

This lies within Luanping County, Hebei province, 130 km from Beijing. It used to be under the jurisdiction of Gubeilu, an important doorway in the northeast defence line of the Ming Dynasty.

Surveys were done here by the Historic Relics Bureau and the Ministry of Culture in 1981. The magnificence of this section is equal to that of Badaling. On this account Jinshanling is named second Badaling. This section is now known to friends abroad and people at home. For three years in succession funds have been allocated by the State to repair this section, aided by recent donations. Highway and tourist services have been projected to be built. One of the most magnificent parts of the Great Wall will shortly be opened to public.

Huangyaguan Pass

This was an important pass under the Jizhou fortified town in the Ming Dynasty, lying 20 km northeast of Jixian County, Tianjin. The precipitous cliff called Huangya is in a strategic position, with the Great Wall winding its way across mountains and ridges. Built in the early years of the Ming Dynasty it was completed

WildGreatWall Adventure Tours

Watsapp/Tel: +86 18510254530

E-mail: wildgreatwall@gmail.com

Website: www.wildgreatwall.com

A History of the Great Wall of China by *Luo Zhewen*



only by Qi Jiguang, commander of Jizhou fortified town in the reigning years of Long Qing. The Huangyaguan Pass of the Great Wall has certain special features in structure. Stone slabs, bricks and stones faced with bricks have been used. Watchtowers are rectangular, round in shape, also built with the same materials. It is a section of the Great Wall much to be valued. The layout of the architecture is unique. Within the mountain pass city wall we find a network of T-Shaped road junctions or crooked ruler so that when the enemy enters into the city he can hardly find his way. The entangled paths are an outstanding piece of defense engineering work.

This section of the wall, however, has been even more badly damaged than other sections. Since such a historic monument is difficult to find elsewhere in Tianjin, first class industrialized seaport in China, a large sum was soon collected when the campaign for fund to rebuild the section got started. Surveying by technicians was immediately undertaken. The first phase of construction -- 800 m wall and watch towers will soon be completed. Jixian county, ancient town east of Beijing will welcome visitors from abroad and at home with its excellent scenic beauty of mountains, the Dulesi Temple (built of wood, 1,000 years ago) and the White Pagoda in Guanyinsi Temple in strange shape, and of course Huangyaguan Pass Great Wall itself.

The campaign Love China Repair Her Great Wall is now underway in depth with Liaoning, Hebei and other places through which the Great Wall passes in length. It is hoped that the Great Wall will shine in great Splendor in a new era in China's history.

WildGreatWall Adventure Tours

Watsapp/Tel: +86 18510254530

E-mail: wildgreatwall@gmail.com

Website: www.wildgreatwall.com