Kalka Shimla Railway- World Heritage Site

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Abstract

Old yet beautiful, historic cities or heritage site are valuable for their historical architecture and local culture with their intangible heritage capital. India is a multicultural nation with its ancient culture and vibrant cultural heritage. The site of Himachal Pradesh with its beautiful valley of the Shivalik hills in district Shimla. The first Indian heritage site approved by the state government in 1997. Kalka - Shimla in Himachal Pradesh is a famous heritage site owing to its ancient architecture, history and local culture. The UNSECO is also expanding its hand to preserve the ancient heritage site. The purpose of this paper is to investigate the important of heritage site and preserving the beauty of natural landscape bridges & tunnels.

Keywords: Intangible heritage, Heritage Site, Landscape, Tunnels

1. Introduction

The word "heritage" is a large array of artifacts, experiences and processes traditionally embedded in the past that a culture and its inhabitants inherit. Heritage may apply to behaviors or traits that they were passed down over the years, from class by class. If we look at our family tree, we'd be able to acquire a sense of lineage ancestry. Heritage is also used to explain a culture. The stuff you're consuming, garments you wear and the mother tongue you speak and the Deity whom you love are all facets in religion. As normal, the God that you represent is the representation is the way we thought and to-do things. These things we've learned as leaders of society. Both human contributions as leaders of social classes may be named. It's history [1]. Art, music, literature, design, sculpture, theory, theology and technology can be used as cultural facets. However, community often contains rituals, practices, events, forms of living and one's view on different aspects in existence. “Culture is that complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society.” [2]

2. Himachal Pradesh

Himachal Pradesh is a tiny hilly state located in northern India. The State’s topography is essentially hilly from the low to the very high hills. Its height from the main sea level ranges from 350 meters to 6975 metres. The state of Himachal Pradesh is situated between north latitude of 30°12'40" and 33°12'40" and 75°47'55" to east longitudes of 79°04'22". Popular for their wonderful and warm culture, the Hamachli individuals have an untouched starkness that creates the Himachal state indeed more excellent with their exciting body character and colorful dresses.

3. Kalka – Shimla (Heritage Railway)

The Kalka Shimla legacy Railroad was built up amid the British run the show in India with the deliberate of connecting the summer capital of the British Indian rail organize to Shimla. The rail network owns the Guinness Book of World Records for the 96 km steepest height at an altitude of 800 bridges and 103 tunnels with one tunnel being non-functional.

The model train Kalka Shimla was a collaborative venture of Indian Railways and Himachal Pradesh Tourism to promote the hill state's picturesque valleys, pine trees, captivating nature, and important past, colonial wonders and natural beauty. Kalka Shimla Railroad, a 96 kilometer long single-track rail course, was set up within the mid-19th century to serve as Shimla town of the Good countries, demonstrative of the mechanical and asset endeavors on disincent soak slope communities by rail. Soon the Shimla district took on tremendous political significance when the Indian Colonial Government chose to take up summer residence there owing to a safer altitude-related atmosphere. The problem of transport to the foothills of the Himalayas, the Delhi area and the Ganges plain was critical. The idea of a rail connection had already been discussed in 1847. Popularly recognized as the
Mountain City of India, Shimla is situated at an altitude of 2100 meters above the mean sea point. The 96 km narrow-gauge Kalka-Shimla Railway, also referred to as the toy train track, was made in 1903 to link Shimla, the summer capital of British India, with the northern plains. In the same year, the railcars were installed forward. The first carriages were very quick, light and small (17 feet) 4-wheel carriages. The growth culminated with the building in 1906 of the Kalka-Shimla railway line, which had 806 bridges and 103 tunnels. This ancient marvel of engineering has become known as the British Jewel of the North. It was also part of the UNESCO World Heritage Site of the Mountain Railways. The first carts were very simple, light and small (17 feet) 4-wheel carts. The growth accelerated with the building of the Kalka-Shimla railway line, which had more than 806 bridges and 103 tunnels in 1906. This ancient engineering masterpiece became famous as the "British Jewel of the East." It was also part of the UNESCO World Heritage Site, the Mountain Railways. [3]

4. Origin and Growth of Kalka Shimla Heritage Railway Line

This grand slope station is found on the transverse slope of the Central Himalayas and is additionally considered a door to the Central Himalayas and the more prominent Himalayas. The enchanted Excellence of this paradise requests to all who are energized to conquer unknown lands, and to come across individuals who are quick to protect their antiquated legacy and community with an energetic confidence. It is one of the finest beginning focuses for the Safari Visits jeep and the other climbs to the more prominent Himalayas. At the tallness of British run the show in India, Sir John Lawrence, Emissary of India, chosen to require the inconvenience of moving the government twice a year between Calcutta and Shimla more than 1,000 miles removed and pronounced Shimla the Summer Capital of India in 1864. The Kalka-Shimla Toy Railroad Line (close gage line 2 foot 6 inches) was built to supply helpful get to to Shimla, India's summer capital beneath British run the show. The rail line to Shimla goes back to the Railroads Framework in India (16 April 1853). Inside the Delhi Look In the Delhi Journal, in November 1847, a correspondent portrayed the railroad to Shimla with activity gauges. The street gives an all-encompassing see of the beautiful view and the foothills of the Himalayas (Shivalik ranges). The view around the complete way gets to be one of the foremost lovely characters of the ride. Over its assessed length of 60 miles (96 km-5 hrs), the line passes over a consistent arrangement of valleys and goads, flanking tall mountains with an amazing feat. The closest enormous gage head is Kalka's four-to-seven-hour trip from Delhi. At that point ride the mountain prepare from Kalka to Shimla. The vision is astonishing, with the line going through an amazing 103 burrows.

The British officers are beginning to come to Shimla for their summer breaks and shooting parties. The forest of Shimla was full of hyena, lions, and leopards, barking deer's, jackals and many rare pheasants of the Himalayas. The lovely and elegant climatic conditions of Shimla, reflecting much like the European conditions In India and offering a perfect place for
the British to withdraw not just from the sun but also from the local civilization of the Indian plains.

The nonappearance of a support bridge is one of the foremost curiously highlights of the Kalka-Shimla course. In a pinewood close Dharampur there's as it were one 60-foot plate support span and a steel trunk viaduct which supplanted a stone display in 1935. Multi-arched galleries such as Roman water passages are the foremost visit way of bringing a line through the gorges between slope goads. It's fair 60 ft. Cover The extend in pine wood between the ancient motor of the bungalow Dharampur, and the steel trunk viaduct, which supplanted the stone display with 869 bridges, comprising around 3% of the course. Multi-arched corridors, such as Roman reservoir conduits, were utilized to carry tracks over the tough scene that been inconceivable to navigate. Ruler of Slopes, Railroad Office has recommended the dispatch of two new summer extraordinary trains on the Kalka-Shimla course. The choice to function two special trains was made, keeping in intellect the expanding number of sightseers traveling to Shimla within the sum.

5. Various Heritage Station in Kalka Shimla Railway

Kalka Railroad Station is the northern conclusion of the Delhi-Kalka-line and the beginning point of the UNESCO World Legacy Location Kalka Shimla Railroad is found within the Indian state of Haryana. The way winds from the foothills of the Himalayan Sivalik in Kalka to a few noteworthy focuses, such as Dharampur, Solan, Kandaghat, Taradevi, Barog, Salogra, Totu (Jutogh), Summerhill and Shimla at elevations 207. The Kalka-Shimla Railroad was built up in 1898. It is in 6 km. The railroad begins to rise over the developing city in an arrangement of little "circles" after passing the JajraNadi.

5.1 Taksal

The railroad enters the valley and rises up to Gumman in a grouping of "Switch" circles, the moment of which incorporates a brief pipe.

5.2 Koti

Koti station is the moment longest burrow on the course, 694m profound. It's a small difficult to see the reason of this tube, since it fair cuts off the bear of the mountain. Small by small, the course continues to meet the railroad, 2 km brief of Sonwara, and there's a level crossing of jabil the only one crossing path.

5.3 Sonwara

Sonwara is 6 km away from Sonwara, where the train enters a lovely double switchback to pick up some height and finally, after tunneling through the mountain, reaches the route – and the Continental Divide – at Dharampur station.

5.4 Dharampur

Dharampur is 6 km between Dharampur and Solan, and the subduction zone extends via the railway line from NW to SE. The river of the valley is in Kumarhatti, at an altitude of 1580 m. To get there,
the rail contours down the north side of the mountain and then Figure 4: Dharampur Station reaches the canyon, sometimes without realizing you’ve just passed a critical line.

5.5 Kumarhatti

Kumarhatti has hit the mountain in 4 km. The railroad is now staring at a long 300 m high ridge that limits its path. The main path has to go straight to the west, for another 8 km, so the railway engineers had to dig into the hill by means of a tunnel 1144 m long, which emerges at the station of Baron – the most beautiful station on the route.

5.6 Barogue

The town of Solan is located at a height of 4 km and overlooking the 2000 m Mount Karol. It’s the perfect location for a community with lots of scope for accommodation and manufacturing, but it wasn’t big enough for the British who needed fresh air and fantastic views.

5.7 Solan

The very first job of the railroad is 41 km from Salogra (1500) to Kandaghat (1420) – 7 km at 1:88. The contour choice is determined for the next peak to which the railroad is led, which is 80 m lower than Solan.

5.8 Salogra

In a distance of 7 km. The option of contour is defined by the next saddle to which the railway is guided, which is 80 m lower than Solan.

5.9 Kandaghat

Kandaghat is 5 km and far from the railway and the railroad chooses opposite sides of the mountain on the way to Kathlihat’s next route. The ability to allow use of many deep valleys wider the track, road and the gradient, but this is also one of the steepest sections of the route. Simple multi-arched bridges crown the heads of these rivers.

5.10 Shogi

At a moment, at an altitude of 8 km, the railroad travels straight down the crest of the mountain to the peak where the Temple of Tara Devi is situated. You can easily see the jubbarhatti airport runway to the west. At the top of the rise, the lane veers to the left and the railroad to the north. Once the railroad hits the base of the mountain, the sight of Shimla is a stunning deal to you. The third longest tunnel on the road (493 m long) takes back side of the ridge and to the Tara Devi station.
5.11 Tara Devi

Tara Devi is 5 km and the 2100 m high point of Kamna Devi to the west, turning the route to the west and the railroad to the east. Jutogh to Summer Hill – 3 km as the train goes around the corner, the Vice Regal Lodge comes into view and a bit of steep climbing brings us to the penultimate Summer Hill stop to Shimla.

5.12 Shimla Station

Shimla sits on the clear, south-facing range and divided at an altitude of 2200 m. The topography from Kalka is essentially shared by both the road and track is never that steep. British entered the path was part of a much longer commercial route the Hindu-Tibet path, which goes beyond Shimla through Fagu and Theog, Narkanda at 2700 m which their depart from the Valley floor to the valley of the Sutle River at an altitude of 800 m. This tracks the river deep into the high Himalayas to a height of 2700 m at the foot of the Shipki La Crossing, where the elevation at the Tibetan frontier is 3900 m.

6. Tunnels in Station and Multi Arch in track

Kalka Shimla Railway one of several heritage railroads in the world provides special trains and coaches as well as regular train service between Kalka and Shimla. The Kalka Shimla Railway Line is one of the most prominent hill railroads in India. Trains running on such tracks are commonly referred to as Toy Trains. A ride on this railroad is a rare experience as one travels across the spectacular scenery of the magnificent Himalayas, across tunnels and over bridges; among the lush green valley, lined with pine and oak trees. The traveler is left with a long-lasting recollection of rhapsody and victory. The Kalka Shimla railway line was inaugurated by the the model train travels through 102 tunnels 969 bridges, 919 curves and 20 railway stations on its trip. The Guinness Record of 'Track Figures and Feats' includes the Kalka-Shimla Railway as India’s biggest narrow gage infrastructure operation. A total of 107 tunnels were constructed but later renumbered in 1930 because some of the tunnels were not in service and the overall number fell to 103. By 2006 the tunnel had been destroyed at 46 Solan breweries and today only 102 remain operational. There are 889 bridges and a total of 919 switches. The height is from 656 meters above sea level at Kalka to 2076 meters above sea level at Shimla. Everything this demonstrates that this line is a marvelous technological accomplishment as you remember the reality that it was designed 150 years earlier. The track has been popular for all these years, and it shows that when the British construct anything they create it to last. An fascinating aspect of these tunnels is that before now, when these tunnels need to be lit for repairs, clear mirrors are used to absorb the sunlight and replicate the light within the tunnel.

6.1 Dagshai and Solan

Dagshai is one of the oldest townships in the Solan district of Himachal Pradesh, India. It is situated at the top of a hill of 5689 feet (1734 mtr) which stands sphinx-like astride the Kalka Shimla Railway Highway at a point of 11 km from Solan. It was established in 1847 by the East India Company to capture five villages from Maharaja Patiala aka Bhupinder Singh free of charge.

6.2 Koti tunnel
Koti tunnel, 2276 foot wide, was constructed at the expense of Rs. 3.83 lakhs. Construction started in May 1900 and was finished in October 1903. The tunnel passes through clay and shale. In 1947-48, a 160-foot arch was restored, without impacting the regular operating train.

6.3 Colonel Barogue and Tunnel

This is a tale about the British Colonel and the longest tunnel on the railway line. Colonel Barogue was a railway worker, and he was tasked to build this tunnel. He wanted to work from both sides of the mountain to the amount of time spent constructing it. Yet his estimates were incorrect, so the two sides were unable to reach each other in the middle.

6.4 The Ghost of the Tunnel (No.103)

Shimla has a number of ghost tales linked to it. There's one of the 103 tunnels on the Shimla-Kalka railway line that has the spirit of a British sahib. The spirit in tunnel 103 is known to be one who talks directly to the individuals he falls into touch with in complete detail. This tunnel was being constructed beneath the home of a powerful goddess, and the staff were terrified to operate there, because they did not want to meet the goddess of divine wrath. Research had to be halted for a little bit, because a breathing pipe had been confused for a huge serpent sent by the goddess herself. This tunnel is the second longest tunnel on the 992 meter line. Today, the track continues to be a source of pride for all of Himachal and of interest for visitors. Another 992-metre-long tunnel named Tara Devi was constructed at the cost of Rs.3.04 lakhs by the British East India Company. Because the temple of the Tara Devi tunnel stood at the peak of the Tara Devi range.

7. Multi Arch Features in these track

An aqueduct is an artificial channel to pass water and is usually in the form of arch bridges which is a spectacular sight in the Kalka Shimla railway due to the lack of Girder bridges. These multi arched corridors were considered as the most popular way for the flowing of water channels like the ones used in ancient Rome. There is just one 60-foot plate girder range in the pinewood surrounding. It is a concrete viaduct that replaced a stone gallery in 1935. The remaining 866 bridges, covering three per cent of the route, take the railroad across the ravines and across the peaks. Multi- galleries, such as ancient Roman aqueducts, were used to carry tracks over the rugged landscape that would otherwise have been impossible to traverse. [4] These stone masonry arched64 bridges, which use lime stone, have as much as four stories, each floor having an arch and each arch having a different shape. Bridge No. 493, traditionally recognized as the "Wall Tower".

8. Kalka Shimla Railway as a World Heritage Site

The Kalka Shimla Railway is an outstanding engineering accomplishment in the construction of the Himalayan Mountains owing to its length, altitude and the complexity of the terrain over which it works in challenging tropical climatic conditions. The Kalka Shimla Railway was constructed under British colonial rule, as Shimla was the summer capital of the country. In turn, the Indian people soon used the railroad to settle in the mountains and create permanent human societies. The reliability of rail transport, which greatly decreased the time and the complexity of commuting was a crucial factor in this social and cultural growth. The Kalka Shimla Railway has been periodically updated in a manner of usage that is compatible with its heritage, although its equipment has been preserved in very good shape, by continuous maintenance and repair work that has been both excellent and in accordance with the quality of the railway. The Ancient, roughly 113-year-old KLK-SML (Kalka-Shimla) railway line, which opened for public transport on 9 Nov. 1903, became a UNESCO World Heritage Railway line when it was given Heritage status on 10 July 2008 and classified under 'Mountain Railways of India.
Criterion (ii): The Kalka Shimla Railway exhibits a significant transition of culture and technology during the colonial era of its development, in particular with regard to the eminently political role of the terminus station, Shimla. The railroad then allowed a major and lasting human community, of which it has remained the key vector until the present day [4].

Criterion (IV): The Kalka Shimla Railway is an excellent illustration of how access to the plains and plateaux of the Indian mountains has been given, as are the two other Indian railroads already listed on the World Heritage List. This is emblematic of the technological and resource attempts of human society of the time to eradicate mountain communities by train. [5]

The century-old Kalka-Shimla railway line, a 96-kilometre-long narrow-gauge railroad extended to and from this hill town of Europe-then the summer capital of British India-has been selected by the UN Educational, Science and Cultural Organisation (UNESCO) as a World Heritage Site[6]. After a survey, a 30-inch rail gage was installed over 30 years by a private firm under the control of the government. "The Guinness Book of Rail Facts & Events" reports Kalka Shimla Railways as India's largest narrow gage engineering firm. Indeed, it is clear that the building of 103 tunnels (102 New tunnels) aggregating five miles and more than 800 bridges over three years has not been an simple feat in rugged and challenging terrain. In 2007, the government of Himachal Pradesh proclaimed the railroad heritage. The UNESCO specialist committee toured the railroad for around a week beginning on 11 September 2007 to study and examine it for future inclusion as a World Heritage Site. On 8 July 2008, the Kalka – Shimla Railway became part of the World Heritage Site Mountain Railway of India [7]. The Kalka Shimla Railway is a 96-km long single-track rail route, established in the mid-19th century, linking Kalka in the foothills to Shimla. Originally, 107 tunnels were installed on the Kalka Shimla Railway Line and 102 are now in service. The longest tunnel in Barogue is part of the World Heritage Site of the Mountain Railways of India. Management is provided by the Ministry and the related regional offices of the Property Management Programe, which deals with properties, houses, roads, bridges and tunnels.

9. Social, Economic and Political Impacts of Heritage site

Shimla Hill Railways have developed a great deal of curiosity in travelers who have led to the rapid growth of Shimla.70 British officers begin coming to Shimla for their summer holidays and shooting parties. The forest of Shimla was full of hyena, lions, leopards, barking deers, jackals and many rare pheasants of the Himalayas. The town of Shimla was designed and built by the British in keeping with its ecological imperatives for living, working and playing. Institutional, British Political residential and tourist usage on the peak, commercial establishment on the middle contours and Indian residential down below was the general pattern of growth. The numerous patches of dense growth are interspersed with green cover and woods. The atmosphere, foliage, ecosystem, architecture, forest, lakes, rivers and grasslands contribute to the city's attractions, rendering it the most popular destination for visitors. In the city, there are amazing walks. The colonial culture thus left an indelible mark in the shape of the traditional urban development of Shimla.

Economic and social growth relies largely on transport and communications. Road transport is the primary mode of transportation and storage. There is a network of 2050 kms of highways, 161 kms of which are double-lane paths. The overall length of the rail line (Shimla Kalka Train) is 72 km. In the point of view of transport and communications, the district of Solan holds an significant position, as National Highway No 22 and the railway line pass through the area. The Kalka Shimla Railway Line is one of India's most famous hill railroads. Trains operating on such lines are generally referred to as 'Toy Trains.' A ride on this railroad is a rare experience as one travels across the spectacular scenery of the mighty Himalayas, across tunnels and bridges, in the beautiful green valleys lined with pine and oak trees. The traveler is left with a long- recollection of rhapsody and victory. The model train travels through 102 tunnels 969 bridges, 919 curves and 20 railway stations on its trip.
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