

= Khewra Salt Mine =

The Khewra Salt Mine (or Mayo Salt Mine) is located in Khewra , north of Pind Dadan Khan , an administrative subdivision of Jhelum District , Punjab Region , Pakistan , which rises from the Indo @-@ Gangetic Plain . It is Pakistan 's largest and oldest salt mine and the world 's second largest . It is a major tourist attraction , drawing up to 250 @,@ 000 visitors a year . Its history dates back to its discovery by Alexander 's troops in 320 BC , but it started trading in the Mughal era . The main tunnel at ground level was developed by Dr. H. Warth , a mining engineer , in 1872 during British rule . After independence , the Pakistan Mineral Development Corporation took over the mine , which still remains the largest source of salt in the country , producing more than 350 @,@ 000 tons per annum of about 99 % pure halite . Estimates of the reserves of salt in the mine vary from 82 million tons to 600 million tons .

= History =

The Khewra Salt Mine is also known as Mayo Salt Mine , in honour of Lord Mayo , who visited it as Viceroy of India . The mine is a part of a salt range that originated about 800 million years ago , when evaporation of a shallow sea followed by geological movement formed a salt range that stretched for about 300 kilometers (185 miles) . The salt reserves at Khewra were discovered when Alexander the Great crossed the Jhelum and Mianwali region during his Indian campaign . The mine was discovered , however , not by Alexander , nor by his allies , but by his army 's horses , when they were found licking the stones . Ailing horses of his army also recovered after licking the rock salt stones . During the Mughal era the salt was traded in various markets , as far away as Central Asia . On the downfall of the Mughal empire , the mine was taken over by Sikhs . Hari Singh Nalwa , the Sikh Commander @-@ in @-@ Chief , shared the management of the Salt Range with Gulab Singh , the Raja of Jammu . The former controlled the Warcha mine , while the latter held Khewra . The salt quarried during Sikh rule was both eaten and used as a source of revenue . In 1872 , some time after they had taken over the Sikhs ' territory , the British developed the mine further . They found the mining to have been inefficient , with irregular and narrow tunnels and entrances that made the movement of labourers difficult and dangerous . The supply of water inside the mine was poor , and there was no storage facility for the mined salt . The only road to the mine was over difficult , rocky terrain . To address these problems the government levelled the road , built warehouses , provided a water supply , improved the entrances and tunnels , and introduced a better mechanism for excavation of salt . Penalties were introduced to control salt smuggling . While working with Geological Survey of India in the 1930s and 1940s , Birbal Sahni found evidence of angiosperms , gymnosperms and insects from the Cambrian period inside the mine .

= Location =

Khewra Salt Mine is situated in Pind Dadan Khan Tehsil of Jhelum District . Located about 200 km (125 miles) from Islamabad and Lahore , it is accessed via the M2 motorway , about 30 kilometers (20 miles) off the Lilla interchange while going towards Pind Dadan Khan on the Lilla road . The mine is in mountains that are part of a salt range , a mineral @-@ rich mountain system extending about 200 km from the Jhelum river south of Pothohar Plateau to where the Jhelum river joins the Indus river . Khewra mine is about 288 meters (945 feet) above sea level and about 730 meters (2400 feet) into the mountain from the mine entrance . The underground mine covers an area of 110 km² (43 sq. miles) .

= Production =

Estimates of the total reserves of salt in the mines range from 82 million tons to 600 million tons . In raw form it contains negligible amounts of Calcium , Magnesium , Potassium , Sulfates and moisture , with Iron , Zinc , Copper , Manganese , Chromium and Lead as trace elements . Salt from Khewra ,

also known as Himalayan salt , is red , pink , off @-@ white or transparent . In the early years of British rule , the Khewra mine produced about 28 @,@ 000 to 30 @,@ 000 tons per annum ; it increased to about 187 @,@ 400 tons per annum for the five fiscal years ending 1946 ? 7 and to 136 @,@ 824 tons for the two years ending 1949 ? 50 with the systematic working introduced by Dr H. Warth . The mine 's output was reported in 2003 to be 385 @,@ 000 tons of salt per annum , which amounts to almost half of Pakistan 's total production of rock salt . At that rate of output , the tunnel would be expected to last for another 350 years .

The mine comprises nineteen stories , of which eleven are below ground . From the entrance , the mine extends about 730 meters (2440 ft) into the mountains , and the total length of its tunnels is about 40 km (25 miles) . Quarrying is done using the room and pillar method , mining only half of the salt and leaving the remaining half to support what is above . The temperature inside the mine remains about 18 ? 20 ° C throughout the year . A 2 ft (610 mm) narrow gauge railway track laid during the British era is used to bring salt out of the mine in rail cars .

Himalayan salt is Pakistan 's best known rock salt . It is used for cooking , as bath salt , as brine and as a raw material for many industries , including a soda ash plant set up by AkzoNobel in 1940 . Salt from Khewra mine is also used to make decorative items like lamps , vases , ashtrays and statues , which are exported to the United States , India and many European countries . The use of rock salt to make artistic and decorative items started during the Mughal era , when many craftsman made tableware and decorations from it . Warth introduced the use of a lathe to cut out art pieces from the rock salt , as he found it similar to gypsum in physical characteristics .

In 2008 the Government of Pakistan decided to sell off seventeen profitable organizations including Khewra salt mines , but the plan was shelved . The mine is now operated by the Pakistan Mineral Development Corporation , a government department .

= = Tourism = =

Khewra Salt Mine is a major tourist attraction , with around 250 @,@ 000 visitors a year , earning it considerable revenue . Visitors are taken into the mine on a train . There are numerous pools of salty water inside . The Badshahi Mosque was built in the mining tunnels with multi @-@ colored salt bricks about fifty years ago . Other artistic carvings in the mine include a replica of Minar @-@ e @-@ Pakistan , a statue of Allama Iqbal , an accumulation of crystals that form the name of Muhammad in Urdu script , a model of the Great Wall of China and another of the Mall Road of Murree . In 2003 two phases of development of tourist facilities and attractions were carried out , at a total cost of 9 million rupees . A clinical ward with 20 beds was established in 2007 , costing 10 million rupees , for the treatment of asthma and other respiratory diseases using salt therapy . The " Visit Pakistan Year 2007 " event included a train safari visit of Khewra Salt Mine . In February 2011 Pakistan railways started operating special trains for tourists from Lahore and Rawalpindi to Khewra . For this purpose the railway station of Khewra was refurbished with the help of a private firm .

Other visitor attractions in the mine include the 75 @-@ meter @-@ high (245 feet) Assembly Hall ; Pul @-@ Saraat , a salt bridge with no pillars over a 25 @-@ meters @-@ deep (80 @-@ foot @-@ deep) brine pond ; Sheesh Mahal (Palace of Mirrors) , where salt crystals are light pink ; and a cafe .

= = Other projects = =

The Pakistan Mineral Development Corporation established the Mine Survey Institute at Khewra in 1971 . The institute conducts mine surveys , organizes mining @-@ related courses for the miners and has establishes the Khewra Model High School and the Khewra Women College . More recently the miners won an important environmental case against the mining company for the provision of unpolluted drinking water . The water available to the residents of Khewra had been polluted by salt , coal and other nearby mining activity . This case is internationally recognised as important with regard to the relationship between humanity and the environment .

In 2003 , while the Government of Pakistan was looking for ways to increase the country 's strategic

store of oil to 90 days , the PMDC put forward a proposal to use the Khewra mines to store strategic oil reserves . Scientific reports confirmed the feasibility of this proposal , but it was turned down .

= = Flooding in 2010 = =

In 2010 , during torrential rain all over Pakistan , water from a nearby nullah entered the mine , reaching a depth of two feet (60 cm) and blocking the exits , after which the mine was closed . It was subsequently reopened and remains open .

= = Gallery = =