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Unearthing The Past: Colliery In The Khasi-Jaintia Hills From 1815 To The Early Twentieth Century

Dr. Bobby Wycliff Wahlang (ID- No- IJCRT-290539)

Assistant Professor (Department of History)

Ri Bhoi College

The Khasi-Jaintia Hills, later Meghalaya, are commonly known as 'Scotland of the East'. They are situated in northeastern India, bounded in the North by Goalpara, Kamrup, and Nowgong districts of Assam; on the East by Karbi-Anglong and North Cachar Hills districts of Assam; on the South by Mymensingh Sadar district and Sylhet Sadar district of Bangladesh; and on the West by Mymensingh Sadar and Goalpara districts of Assam. The area covers 22,429 Km² and lies between latitudes 24° 58' N and 26° 07' N, and longitudes 89° 48' E and 92° 52' E. Most of the land is mountainous, interspersed with gorges and small valleys, with elevations ranging from 150 m to 1,950 m. Meghalaya had a population of 2,966,889 according to the 2011 Census of India. It was carved out of Assam as an autonomous and full-fledged state on 21 January 1972. The state is inhabited by three major ethnic communities: the Khyriam, the Pnar or Syntengs (popularly known as the Jaintias), and the Garos. Minor communities include the Bhoi, War, and Lyngngam, which belong to the Mon-Khmer-Proto-Austroliod stock, while the Garos belong to the Tibeto-Burman stock and occupy the Garo Hills. All ethnic communities settled in the Khasi-Jaintia Hills region are collectively known as the Khasis or the Cossyeh.

Coal formed from the remains of ancient flora that amassed and accumulated in a swampy environment for millions of years. Due to the heat and compression inside the Earth's crust, it resulted in the squeezing out of the gases and the water, and the remains led to the formation of coal; this process is called coalification. ⁱCoal is one of the most important minerals that mankind has used in various fields of economic activities, and this has contributed to the progress of civilisation. The first uses of coal can be traced in the Bronze Age, approximately around 3000-4000 years ago, in Wales, where it was used during a funeral pyre. Coal was one of the most valuable minerals that contributed to the development of the Industrial Revolution in England and to the rest of the world. Coal was found deposited under the Earth's crust since approximately around 359.2 mya- -299 mya during the Carboniferous epoch. Coal is an ignitable mineral that was used as a fuel for industrial purposes, especially for the manufacturing of iron and steel. It was the deposition of dead plants and other organic matter that resulted in the formation of coal seams beneath the Earth's crust. ⁱⁱ There are different types of coal which can be divided into four categories – brown coal or lignite, bituminous, anthracite (hard coal), and sub-bituminous. In modern times, the process of mining coal is done in a scientific method. Mining was done by the following technique, as shown below.

Coal Mining Methods

<u>Surface mining methods</u>	<u>Underground Mining Method</u>
I) Strip mining	I) Brod & Pillar
II) Slice mining	II) Long Term Method a) Advancing---b) Retreating
III) Horizontal mining	III) Short wall method

This paper intends to trace the development of coal right from the pre-colonial, colonial, and till the early phases of the twentieth century. It will discuss the origin of the coal mine in the Khasi-Jaintia hills, how the coal trade expanded and continued in the post-independence era. This article will not deal with the scientific technologies of extraction of coal; however, it will try to narrate the traditional technology of extraction adopted by the Khasi-Jaintia people and it will discuss in detailed the commercial activities of the coal trade till independence and how it was expanded and banned by the National Green tribunal in the post-independence era.

Geological structure of Meghalaya

For an understanding of the growth and development of coal mining, it is considered imperative to provide a background of the geological features of the Khasi-Jaintia Hills. The Khasi and the Jaintia hills that rise immediately from the plain tract of Sylhet possess unique geographical features, as a vast tract of limestone deposits with thick beds of about 65 to 100 m occurs along the southern part of the Khasi-Jaintia Hills.ⁱⁱⁱ Coal seams have also been seen deposited in intercalated layers. Near *Sohrarim*, coal seams appeared again and they stretch till *Laitryngew*. Thomas Oldham calculated that the thickness of the coal seam is about 3 feet 6 inches to 4 feet, and its deposit is estimated to comprise about 447,000 tons.^{iv}

The geological structure of the Khasi-Jaintia Hills belongs to the rock formation of the Indian Sub-continent and consists of quartzite, phyllites, sandstone, quartz-sericite, and schist conglomerate. These rocks are formed by the natural agencies like heat and pressure, which were immature in form and found exposed in the central and eastern parts of the Meghalaya plateau, and are said to strike in a northeast to southwest direction. On the other hand, the geological structure of the Jaintias Hills is comprised mostly of metamorphic rocks such as gneiss, quartzitic sandstone, and dark green boulders. In general, the Jaintia hills consist of more flat land that slopes downwards towards the south. In this region, sandstone, limestone beds, along with coal, are found in abundance. The central part of the Jaintia hills comprises sandstones, but while moving towards the southern region of the hills, the lower section of this range comprises mostly coal and limestone beds. H.H. Godwin Austen (1869) in his report mentioned that on the western edge of the Jaintia hills, sandstone rocks form the massive structure, the hills-lock at *Chirmang*, and the southern part of Jowai comprises carbonic shales. These rocks formed a dark, hard, earthly coal, and it continued till the western part of the *Sutnga* plateau. However, from the middle of the *Sutnga* plateau, a new series of limestone beds emerged and continued till the southern region of the Jaintia hills. These interbedded coal beds have been in existence since the Eocene age, deposited alongside limestone.^v

The geological structure of the southern plateau comprises mainly sandstone alongside a limestone tract and coal seams. The landscape of the southern region of the Khasi-Jaintia Hills and especially Cherrapunjee, where the British sanatorium was later established, is encircled by a wide range of hills, usually flat, that rise upwards from the plains of Sylhet, stretching from the east towards the west. Almost all the hills of this region possess a peculiar feature, that of a flat-shaped table outline, which envelopes the general ridge, glens, or valleys as well. The western side of the ridges is known as the *Garrow* or Garo hills, where dense and impenetrable forests abound.^{vi}

The central part of the Khasi-Jaintia hills continues to rise till they attain a certain height, and expansion continues from Cherra-poonjee till *Mawphlang*. From *Mawphlang* onwards, the hills again continue to rise till they reach the central upland zone, with the highest point being the Shillong peak (1961 meters). The central part of the Khasi-Jaintia hills, as Sarma states, contains remnants of many levels of land surface produced by erosion over a long period, with the altitude ranging from 1,500 m to 2,083 m. The northern part of the Khasi-Jaintia Hills, which was locally known as *Ri-Bhoi*, is intermingled with narrow, lush valleys covered with prosperous tracts of timber forests.^{vii}

Thomas Oldham, in his report on the geological structure of the Khasi-Jaintia Hills, agreed that this range of mountains is part of the Himalayan fold, but it is younger. He pointed out that the Khasi-Jaintia Hills rise suddenly from the plains to a height of 1 to 300 feet above the general level of the plain and continue to rise toward the central plateau till they attain the summits, with Shillong peak at its height of 6449 feet. The rock composition comprises mainly granite, mixed with sandstone and greenstone. Besides sandstones, metamorphic rocks form a greater portion of the Hills. The sandstone rocks are well exposed in the southern region alongside limestone beds and coal deposits, which have been extracted. Here, limestone alongside coal veins were discovered, and the top of the hills was covered again by small soft stone and clay. The thickness of the coal seam is about 3 feet 6 inches to 4 feet, and its deposit is estimated to comprise about 447,000 tons.^{viii}

Emergence and Expansion of Coal Mining in the Khasi-Jaintia Hills: Tracing Early Evidence and Developmental Stages

The advent of colonial rule in the nineteenth century created conditions that were favourable for the exploration of coal mining in the Khasi-Jaintia hills. Therefore, the British government sent experts like Henry Yule, T. Jones, and Cracroft. T. Oldham, A.J.M. Mills, J. D. Hooker, and others to survey and reports the possibility of exploitation of the mineral resources which will be beneficial for the British government. From their reports, we learn that the coal deposit in the entire Khasi-Jaintia hills is approximately 1197 million tonnes. These coal belts were *Byrungpoonjee*, *Cherrapoonjee*, *Sohrarim*, *Laitryngew*, *Shella-Mawlong*, *Lakadong*, *Tuber*, *Lakasein*, *Lumshnong*, *Langrin*, and along the river basin of the *Rilang River*.^{ix} Thus, coal is also another mineral which have contributed to the revenue of the British government.

The presence of coal seams was first reported to the Governor-General-in-Council at Calcutta by Mr James Stark in 1815. Mr. Stark noticed that these coal seams were located just at the foothills of the Pandua region, which is not far away from Sylhet. He was able to get permission from Mr. A. Trotter, then Secretary Public Department, to mine the coal and send it to the foundry at Fort William. Stark reported to the government that the test conducted at the foundry at Fort William shows that the coal is of good quality. He therefore requested the government to permit him to supply coal to Calcutta at the rate of 1-rupee 8annas per maunds. He also requests the government to grant him duty-free free for five years. In 1815, around 2000 maunds of coal from the hills were sent to Calcutta, but he could not find any buyers.^x Thus, Mr Stark withdrew from the coal mining and concentrated on the lime trade.

As we notice that the coal specimens which Mr Stark had displayed in 1815 at Calcutta could not find any demand, yet the progress for further exploration for coal belts in the hills continues. Thus, in 1828, J.D. Hooker report to the government about and existence of the coal veins at the foothills of the Pandua region near Sylhet. In his observation, he mentions that these coal beds extended further to the north and contain substances known as bitumen or tar, which he suggested that the government take hold of this region. Again in 1832, William Cracroft submits a report of the coal seams that were found deposited near the British sanatorium at Cherrapoonjee and throughout the adjoining range. He even carried on an experiment by sending the coal from the hills to the foundry at Calcutta, where it was noticed that the coal from the hills was better than the coal from Burdwan. The composition of the coal specimens was as follows.

Specific gravity of coal	1.275
Volatile matter of gas	38.5
Carbon or coke	60.7
Earthy impurities or ash	0.8

Despite the low demand for the Cherrapoonjee coal in the markets at Calcutta, the government did not abandon the mission of exploration of coal in the hills. They send an expert, Mr Landers, the superintendent of coal mines, to survey the possibility of discovering new coal mines. Almost twenty-five years after Mr Stark dispatched the coal to Calcutta, Landers reported to the government in 1840 about the coal belt situated at *Mustoh*. Mr Henry Inglis, a limestone merchant, has extracted some coal from this site, and it was sent to *Chattack*. The coal belt located at *Mustoh* and at *Mawlong* is very close to *Chattack*, and for transporting the coal, they can use the rivers. A better coal belt with good quality was also unearthed at *Byrongpoonjee*. The coal is of a soft quality, which can be easily extracted, and the coal seams are approximately three feet thick. After experimentation, it was found that this coal is as good as the *Cherra* coal since it produces less ash. But the coal, except *Mustoh* coal, is of an inferior quality since the coal is mixed with the earthy clay. The coal seams further extended towards the south and ended at the river beds at a place known as *Shella*. But the *Shella* coal is of an inferior quality, but its thickness is approximately three feet.^{xi}

Later on. The government, under the initiative of Major Lister, decided to use only the Cherra coal as they had obtained the permission for the extraction of coal in perpetuity from the Syiem of Sohra on condition that the British government would pay one rupee as royalty for 100 maunds to the Syiem. Consequently, the government immediately handed over the right to mine coal to the Oriental Company of Calcutta. However, Mr Engledue's agent of the Oriental company failed to supply the required amount of quantity of coal. Therefore, the right of mining of coal in Cherra was transferred to the Sylhet Coal Company, which was managed by Messrs Gisborne & Company as their representative.^{xii} It is important to take note that the failure of the Oriental Company to supply the required maunds of coal was due to a lack of proper transportation, like roads, as well as the high cost of transporting the coal from the hills to the plains of Sylhet. Later on, the government sent officials like T.C. Watson and Henry Yule, engineers, to explore the possibility of connecting Cherrapoonjee to the plains of Sylhet through roads and railway lines.

Since coal mining has once again commenced on a large scale, the government felt the need to improve the means of transportation by expanding old roads and constructing new roads as well as railway lines from *Cherra* to *Theriaghat*, located near the river beds of the *Surma* River. It is interesting to note that during summer, the plains of Sylhet were like an ocean. Therefore, from the last week of April till the end of October, small boats used to ply the river for transporting goods. The Khasi porters usually charge four annas for carrying the bulky goods from the hills down to *Theriaghat*. The old road that connects Cherra with *Theriaghat*, which was usually used for horse and bullock-cart, was functional, and it can be expanded for wheeled carriage as well as for elephants to be used for transportation of goods. T. C. Watson also suggests the connection of *Chhattisgarh* with *Theriaghat* by a steamer, which is only fourteen miles and will take only four to eight hours. A suggestion was also put in place to connect Calcutta to Chhattisgarh on the river Surma, which is achievable within less than six days.^{xiii}

Similarly, Henry Yule was also in favour of the expansion of the cobbled stone road for carts and bullock-drawn carriages. However, he notices that a proper bridge needs to be constructed since most of the bridges that the Khasi-Jaintia use for connecting to the plains of Sylhet were the living-root bridges. These bridges cannot be used by a horse carriage or even by a bullock cart. The present bridge (Living-root bridge) was made from a rubber tree, which connects one end of the river to another end of the river, for instance, the living-root bridge that connects *Ringhot* village with *Cherra*. Yule also request the government to immediately construct a bridge over the river *Theria*, which will ease the problems of transporting coal and other goods to the bank of the *Surma* River. It was estimated that the cost of transportation of coal by steamer boat from *Theriaghat* to *Surdah*, located on the upper part of Calcutta's eastern bank of the Ganges, is Rs

(21) twenty-one per (100) Hundred *maunds*. The total distance from *Chattack* is 150 miles, and the journey will take almost twenty-four days.^{xiv}

In 1852, Colonel. Lister submitted the report to the Governor-General-in-Council at Calcutta, the total despatched of coal and the cost of transportation of coal from the hills to Calcutta using roads, railway, and by steamers at Rs . 66,584 for the first experiment.

Year	Place	Maunds	Prices	Loss
1842	Chattack	44,350	4annas for 4.6/8 pie per maunds	Nil
1842	Calcutta	39,750	7annas. 7. 1/8 maunds	Nil
1842	'do'	65,955	7. annas 3.1/2 maunds	Nil
1844 February	'do'	5,642	'do'	Nil
1844 November- December	'do'	90,940	7. Anna's. 9.1/2 maunds	Lost six boats

Thus, the average value of Cherra coal at Calcutta = 7annas 6.1/4 or Rs 47 per 100 maunds.^{xv} The coal that was supplied to Calcutta, as mentioned in the table, was mined from the Cherrapoonjee coal belt that includes Sohrarim and Laitryngew, but the better coal, which produces less ash, comes from Cherrapoonjee. The coal from Cherra was mostly used for steamboats. By the 1850's the coal from the hills found its markets in Sylhet and Calcutta. As the coal business started to boom, a conflict took place over the ownership of coal mines. For instance, the Cherra court has to settle the claims of H. Inglis over some mines located near Sohrarim, where he claims that he is the rightful lessee and while the other party, that is, Mr Duncan and Gibson, also claim the same. But since Henry Inglis is the son-in-law of Captain Lister, the political Agent of the British government, the Cherra court gives the Judgement in his favour.^{xvi}

In Jaintia hills, the presence of a coal belt was found at *Lakadong* and its adjoining areas, and this region is already under the control of the government as the Jaintia *Raja* has renounced the claim of ownership over this land since 1835.^{xvii} In this region, the coal seams which appeared at Lakadong stretch towards the east and their thickness expands when they reach areas like *Lumshnong*, *Muriang*, *Lamare*, *Mutang*, *Bapung*, *Jarian*, *Shangpung*, *Ioski*, and *Umat*. The thickness of the seam was not even; at certain places it was around one foot to almost six feet, and in certain areas it reached eleven feet.^{xviii} The quality of the coal, though a little bit brownish, yet they was majority darkish in colour and hard, and they were formed from fossil but mostly marine remains, which belong to the Eocene age, approximately 56 to 34 million years ago. The coal was high in sulphur content, and it is very useful to generate electricity as well as for industrial use.^{xix}

The operation of coal mines in the Jaintia hills came into effect in 1848 when the government granted the mining lease to Mr. W.B. Darley to work on the coalfields at *Lakadong*. The terms of the lease were - that the lease is not transferable; its validity was for thirty years, and a royalty of one rupee must be paid for every 100 mounds to the government. However, Darley could not effectively mine the coal and therefore,

the government in 1851 transferred the mining lease to Mr. W. Moran for a short period only, and the quantity of coal that was mined from the Jaintia hills from 1848 to 1856 was approximately 1,39,508 mounds. In fact, according to Hunter, the estimated coal deposit of coal in the entire Khasi-Jaintia hills is approximately more than 1,100,000 tons. The coal that was supplied to Sylhet and Bengal from the Jaintia hills was of a very high quality. It is worth around Rs 12,500 for 25,000 mounds.^{xx} Despite the vast deposits of coal in the Jaintia hills the problems face by coal traders was the lack of a better means of transportation and the high-cost charge by the coolies from the pits to the depots.^{xxi}

The coal mining activities in the early 1860s till the dawn of the twentieth century, though accelerated at a slow pace, continued to flourish along sides with limestone and orange trade. In 1862, G. D. Shower realised the high quality of coal and other valuable minerals of the hills and requested the government to take the initiative for improving the means of transporting the coal to the plains of Sylhet^{xxii}. Thus, the obvious obstacle faced by the coal miners was the transportation of the coal to the plains of Sylhet. For instance, *Borghat*, located at the mouth of the Surma river, is only six miles from *Lakadong*, but the coal traders find it difficult to transport the coal due to the steep and vertical terrain to go down the plains of Sylhet. After 1860, good quality coal was discovered at places like *Umat*, *Amwi*, *Narpuh*, *Manaicherra*, *Lubacherra*, *Mhadep*, and *Thanjinath*. The *Umat*, *Mahdep*, *Narpuhr Elaka*, and *Lubacherra* valley coal belt was of a high-quality coal which belongs to the category of sub-bituminous and Ignite A.^{xxiii} The presence of the coal belt in this region south of Jowai was unknown to the European traders. It was only after a thorough persuasion and promises that the locals disclosed to the government the richness of the coal seams. These coal seams were located in areas which was sacred to the Jaintia people as they believed that their gods and goddesses reside within the sacred grooves. Later on, the *Lubacherra* valley and *Narpuhr Elaka* were leased to Mr. R. H. Henderson in 1895, who is the agent of the *Lubacherra* Tea estate of Sylhet. But this company failed to commence the operation of the mine; therefore, in 1899, the lease was abolished.^{xxiv}

Therefore, in 1892, in order to gain the trust of the local populace, the government enacted rules and regulations for the coal miner that they must follow; otherwise, their lease will be terminated. The rules were as follows-

- (I) Once the lease is granted, the lessee must start working the mine immediately for two years. If he fails to operate the said mine, the lease will be terminated at the end of two years.
- (II) Once the lease was granted, he must pay the royalty as well as the rent of the mine to the government.
- (III) They must not destroy the drinking water sources, they must not mine coal in the sacred groves, they must not destroy the burial place, and pollute the river streams.
- (IV) In no part of the leased land will be allowed for the construction of buildings or other structures be allowed.^{xxv}

Conclusion

By the beginning of the twentieth century, local entrepreneurs like Babu Jeebon Roy, Don Rai, and others stepped into the coal business.^{xxvi} The coal that was extracted during this period was also consumed by the local people. It was used as a fuel to keep the people of the hills both in Jowai and in Shillong during the winter. Thomas Jones, a Welsh missionary who was a champion for promoting the economy of the Khasi-Jaintia society, taught the Khasi blacksmith to use coal as a fuel for smelting the iron ore.^{xxvii} The history of coal mining, which commenced in 1815, continues to today, but in a scientific manner. The coal from the hills finds its market not only in the plains of Sylhet and Dacca. The markets expand to Bengal and reach the plains of the Ganges River, where it was used by the boat operators. Thus, coal, which was consumed only in the plains of Sylhet, was linked to the national market in Bengal and in the Ganga Doab region. By the end of the nineteenth century and the dawn of the twentieth century, European capitalist began to invest their capital in coal mining in the hills. As a consequence, the traditional market was linked to the national market, and finally it was connected to the world capitalist market. Thus, the self-sufficient economy of the Khasi-Jaintia was disrupted with the advent of colonial rule.

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- ⁱⁱ <https://en.wikipedia.org/wiki/coal> accessed 11th June 2025 Time: 19:05
- ⁱⁱⁱ S Sarma, 'Meghalaya: The Land and Forest'. Guahati Geophil Publishing House.2003-11-12
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- ^v H.H. Godwin Austen, "Notes on the Geology and physical features of the Jaintia Hills". *Journals of the Asiatic Society of Bengal*. Calcutta Baptist Mission Press 1869. 151- 156.
- ^{vi} D.D. Mali. "An Introduction to the Economy of Meghalaya' Shillong Scorpio Printers 1978.6-8
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- ^{xii} T. Oldham. 'Geology, Meteorology & Ethnography of Meghalaya'. New Delhi, Mittal Publication 1984. 58
- ^{xiii} "Chirra Punji, and a detail of some of the favourable circumstances which render it an Advantageous site for the erection of an Iron and steel Manufactory on an extensive scale". *Journal of the Asiatic Society of Bengal. Vol-III 1834*. Calcutta Baptist Mission Press. 25-33
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- ^{xv} T. Oldham. 'Geology, Meteorology & Ethnography of Meghalaya'. New Delhi, Mittal Publication 1984. 60
- ^{xvi} A.J.M. Mills. 'Report on the Khasi and Jaintia Hills 1853' North Eastern Hill University Publication Shillong, 1985. 38-69
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- ^{xxi} Ibid. 234
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- ^{xxvii} A Brief Sketch on the Life and Work of Thomas Jones in the Khasi Jaintia Hills in *Sesquicentennial Jubilee Souvenir*, Khasi Jaintia Presbyterian Synod, Shillong, 1991, p. 12.