

RUPKUND HUMAN REMAINS: A MYSTERY YET UNRESOLVED

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Rupkund is a small bowl-shaped lake of glacial origin, situated at an altitude of about 16,000 ft., in the Central Himalayan region of Garhwal. The circumference of the lake at water level is about 370 ft. The only approach to the lake is a lip-shaped depression on the south-western corner of the bowl, formed by snow-covered peaks. According to local belief system the lake has a mythical origin. It is believed, as narrated in folk songs of the region, that Mahadev created the lake by the strike of his trident, so that his consort Nanda may quench her thirst; and Nanda, while drinking water, saw her own image (*roop*) reflected by water. Thus, the lake came to be known as '*Rupkund*'. It is also known as Rudrakund.

For most part of the year the lake itself remains covered by snow, except for a brief period in August-September, when the snow melts away but even then, the lake surface may remain mostly frozen and the shores with snow covered patches. The region is devoid of vegetation except two varieties of high altitude flowers called '*Brahma Kamal*' and '*Feni Kamal*'. It was due to an assignment for the collection of these flowers in 1942-43 that led to first official recognition of the presence of large number of human body remains on the shores of Rupkund Lake. H. K. Madhwal was the first official to chance upon the site a large number of human body remains on the lake shore on 2 September 1942.

In a broadcast from All India Radio, Calcutta, on 06-03-1956, this is what was said: "What appeared to be a ledge was actually the outer edge of a small lake. As we approached nearer, we could see the muddy waters of a lake and when we actually reached its bank, we were face to face with a ghastly scene that made us catch our breath. The whole place was littered with scores of human bodies. Flesh like inflated rubber was sticking to most of the bodies. Their grinning faces made the scene still more hideous. Our porters were so much terrified at this gruesome site that they at once took to their heels, thinking that they had landed in a ghost land. My assistant, Lacham Singh and I, however, stayed back for a while to have a closer view of the bodies and the lake. We saw that the bodies were unusually large. The leather *chappals* which we found lying here and there in the debris were large-sized and of a type not commonly seen in the Uttar Pradesh. There were also pieces of wooden utensils, country-made umbrellas and bamboo sticks mixed with the rubble. Most of these human relics were partially buried in the gravel and silt on the lake..." (Madhwal, 1956). However, in 1955, when Madhwal visited Rupkund again in an expedition organized by U.P. Forest Department along with Reuter and Statesman, the site was totally different as no whole bodies were seen. In the intervening years, there must have been rockslides which dismembered the bodies and scattered the remains over the whole area. As a matter of fact, Mahesh Chandra of the Statesman, in his dispatch dated 26 September 1955, wrote that there had been reason to believe that considerable alterations occurred in the snow conditions in Rupkund region and that in recent years, more bodies had, as a consequence, become exposed to the weather. He further wrote that he was informed by one Rup Singh who had participated in the *Yatra* 26 years ago (reference could be to the *Raj Jat* of 1925) that on that occasion he had seen clothes on some of the bodies. Rup Singh of village Mundoli and an Ex serviceman had said, that on that occasion he and one of his companions had seen the bodies reclining against the hill slopes under layers of snow with only few limbs jutting out here

and there. During the joint expedition in 1955 they witnessed, “Fresh boulders came hurtling down into the lake area, further mutilating the bodies” (Mahesh Chandra, *The Statesman* September 26th).

From the above account, it becomes evident that when the tragedy occurred, the people who became victims were assembled at the north-east bank of the lake and a severe snow storm/blizzard struck them, piercing their bodies due to funnel effect through the only opening diagonally opposite, thus freezing them to death. The mutilation of the bodies and scattering of bones occurred subsequently due to rock slides or falling of boulders, on the slope below Jyunra Gali. According to various estimates about 200-300 body remains were visible but still some more may have been lying buried under the rocks or in the lake itself having been transported down the slope by sliding snow block or torrents of molten snow water. The depth of the lake is unknown but a small rivulet known as Rupganga originates from the lake and flows into the Mandakini, a tributary of Alaknanda.

Madhwal had reported the presence of human bodies to the then Deputy Commissioner, Garhwal, R.V. Vernede, who in turn referred the matter to Mr. Action, the then Commissioner, Kumaon. Mr. Action thought that the human bodies lying at Rupkund were probably those of the fleeing army of Zorawar Singh who was killed in 1841 during his last Tibetan campaign, but no further probe was undertaken in the matter, due to exigencies of war.

The presence of these body remains may have been in the knowledge of the people of last three villages of the region, but hardly spoken about. The first authentic reports about Rupkund came in 1898, while the presence of human bodies was discovered and reported by Long staff in 1905 (Verma, 1959). In 1925, during the Nanda Raj Jat which passes by the Rupkund Lake towards the foot of Trisul massif, some of the participants in the Jat (pilgrims) saw the human bodies lying (reclining) on the north-eastern bank of the lake, vertically below Jyunra Gali (the Gali of death), and directly opposite the only approach to the lake.

At this point it is relevant to explain briefly what Raj Jat is about. It is Royal pilgrimage of goddess Nanda, held with a periodicity of 12 years or so, preceded and thus indicated, by the birth of a four-horned ram, in one of the villages of Chandpur area of Garhwal. Goddess Nanda is the presiding deity of Garhwal and Kumaon and by claiming a special relationship with her the rulers of this Central Himalayan region legitimized and consolidated their authority over the land and people. It was so, perhaps, with the Katyuries in the 9th and 10th centuries, who first ruled from Joshimath in Garhwal and later moved to Baijnath in Kumaon. It is probably that Katyuries in their migratory journey from Kashmir brought the Nanda cult to Garhwal-Kumaon region. After their disintegration, various Garhwal Chiefdoms became independent but were later brought under the suzerainty of Ajay Pal of Panwar dynasty of Garhwal. Ajay Pal was descendent, 37th in line of succession, of Pilgrim Prince Kanak Pal of Dhar, who had come on pilgrimage to Badrinath, but stayed back. He married the daughter of Chandpur Garh Raja and inherited the kingdom as well. It is claimed by bards and folklore that the princess who married Kanak Pal was named as Nanda. Thus the goddess Nanda is personified as princess Nanda and Chandpur as her *mait* (Natal village/villages).

The precise origin of *Raj Jat* is not known. By some account it goes back to 9th century, by others it was started by Ajay Pal or his son Kalyan Pal in 14th century; whatever that may be, the tradition is that it goes back in antiquity. Some dates in the last century are: 1905, 1925, 1951, 1968, 1987 and 2000. It was to be held in 2013, but due to the disaster that struck the whole of Uttarakhand in June, it was postponed to 2014. The Raj Jat originates from Nauti village of Chandpur which is considered as *mait* or natal village of the goddess Nanda, also fondly called as Gaura. It is one of the longest and most difficult pilgrimages of the world--an arduous journey of 280 kilometres, most of which is to be undertaken barefoot

over the mountainous terrain of Central Himalaya (Chandola, 2000). It terminates at Homkund, at the base of Trisul massif, on the far side of Rupkund, passing by it and over Jyunragali.

Originating from village Nauti, the Raj Jat passes through many villages where the Nanda temples are located and specially Kurud, where there is a temple of Raj Rajeshwari, a sister of Nanda. It reaches Wan, the last village from where it goes to Bedini Bugyal, where there is a Baitarni Kund. At this Kund, the Kunwars of Kansua, the descendants of Kanak Pal (junior branch), offer oblation to their ancestors and Raja Jasdhawal of Kannauj, who along with his Rani Balampa and the retinue, are said to have perished at Rupkund. The annual *Jat* is held every year up to this point. The *Raj Jat* proceeds further from Bedini to Patar Nachaunia, Kailwa Vinayak, Hunia Thaur, Rupkund and beyond over Jyunra Gali to Homkund where the goddess Nanda is bid farewell to proceed to Kailash, her husband's place.

This route is an ancient mountain track and the people of the last three villages remember that through this track, one could go to Niti Pass. They also remember that their ancestors used to get wool, salt and borax from the Hunia (Tibetan) traders, who used to travel through this route. In this connection, it is relevant to point out that on the lower side of Rupkund is Hunia Thaur, i.e., the camp of the Hunia, and on the far side beyond Homkund is Hunia Than, i.e., place or settlement of the Hunias. Beyond Hunia Than is Niti Pass, which means that sometime in the past, one could go to Tibet but presently the route is closed--maybe due to disuse or rockslides, etc.

The Rupkund Lake also has a place in the whole scheme of the pilgrimage. Here the pilgrims stop and pay homage or oblation to the ancestors who were supposed to have perished there hundreds of years ago. Thus, over a period of time, the lake has also become part of a ritual.

However, it was only in June 1955 that the Deputy Minister of Forest, Government of Uttar Pradesh, the Late Jagmohan Singh Negi, made a press announcement, disclosing the presence of hundreds of human remains, along the shores of Rupkund. He also put forward a theory that the body remains belonged to the fleeing army of the Dogra General Jorawar Singh, who was killed during the last of his Tibetan Campaign in 1841.

The theory raised a controversy as well an interest, with regard to the identity of the body remains and the time and nature of the tragedy resulting in the accumulation of such a large number of human body remains. Consequently, in order to resolve the mystery, an expedition to Rupkund was organized by *The Reuter* and *The Statesman*, jointly with the Forest Department of U.P. in September 1955. The expedition succeeded in bringing back a small collection of bones, including two human skulls, one jawbone, a leg, a forearm covered with flesh and some cultural artefacts. The collection was handed over to Professor D.N. Majumdar, Head of the Department of Anthropology, Lucknow University, for scientific studies. Dr. Majumdar, after studying the collection, prepared a preliminary report, which could not say much because of the very small size of the sample (Majumdar, 1955--quoted in Verma, 1959).

Since the disclosure had raised a great public interest, concerted efforts were made in August-September 1956 to resolve the mystery. Three different expeditions were organized and were successful in reaching Rupkund between 4th and 18th September 1956--one by the Department of Anthropology (now Anthropological Survey of India), Government of India, Calcutta, under the leadership of its Director, Dr. N. Dutta Majumdar (I was a part of this expedition); second by the Department of Anthropology, Lucknow University, under the leadership of Prof. D.N. Majumdar; and the third by Swami Pranavanand, Fellow of the Royal Geographical Society and a renowned explorer. Swami Pranavanand is said to have visited Rupkund in 1957 and 1958, and added to his collection which is said to be lodged in

the Government Museum, Lucknow. All the three expeditions were successful in bringing back sizeable collections of both skeletal remains as well as cultural artefacts for further scientific studies to determine the identity and origin of victims and the time of the tragedy (Negi, 1958, 1997, 2000, 2002, 2009).

The Anthropological Survey of India collection had a large segment of human body which comprised portion of a body from the waist to both the knees. The bones were fully covered with both dried up and deteriorated flesh and skin. The sex of the individual could not be determined. In their collection, most of the bones were free from any attached soft tissues but few of them had muscular and cartilaginous tissues attached to them. The medullar cavity of such long bones was found to be full of soft and yellow pasty substance, presumably marrow. Several samples of flesh and bone marrow were collected on the spot in sealed sterilized tubes. The lines of investigation on the skeletal material were as follows:

- 1) Diagnosis of sex and maturity of the skeletal posts.
- 2) Anthropometric measurements of the skulls and long bones and estimation of stature from the long bones.
- 3) Determination of blood group substances A & B in the various tissues such as bone, marrow and flesh.
- 4) Radio-Carbon dating from the wooden/skeletal material to establish the time of the tragedy.

From the studies it was found that the victims had sex ratio of about 25-35 per cent female and 75-65 per cent male, which meant that the victims included substantial number of females. It was found that most of the individuals were adults, but some individuals below the age of 18 or even less were present amongst the victims.

Stature in the living was estimated from measuring long bones of 50 males and 29 females. The average stature for male was 5 ft. 6.5 inches; in case of females, it was 5 ft. 2 inches. Among males, 34 per cent being tall, 36 per cent medium and 30 per cent below medium; among females, 62 per cent being tall, 30 per cent medium and 35 per cent below medium.

As regards dating, the two wooden samples subjected to Radio-Carbon dating--one at the University College of Science, Calcutta, and the other at Royal Institution, London--yielded 470 ± 120 years and 500 ± 60 years, respectively. Thus, the two estimates have a common overlapping period which extends from 500 to 590 years. The tragedy seems to have occurred nearly 500 years ago.

The Department of Anthropology, University of Lucknow collection was subjected to anthropometric studies in their laboratories. They also sent their samples to the University of Michigan (USA) for Radio-Carbon dating.

As regards stature, the study conducted by the Department of Anthropology reports only tall people, with an average stature of 5 ft. 9 inches calculated from absolute femur length of a total of 8 femora. They place the victims to be originating from western India, extending further west up to Swat and Hunza Valley and N.W.F.P. of Pakistan. Prof. Majumdar has even mooted the possibility of the army of Mohammad Tuglaq, based on the finding of a coin of Tuglaq, amongst the remains (Singh, 1972).

The Radio-Carbon dating from the skeletal material sent by them to Michigan State University yielded the date as 650 ± 150 years, thus extending the time period from 500 years to 800 years (Crane & Griffin, 1958).

As per Swami Pranavanand's collection it is not known where he got the further investigation done and what the results were. However, he believed that the folk songs of Nauti and Chandpur region, which narrate the *Jat* performed by Raja Jasdawal of Kannauj with his pregnant Rani Balampa--said to be a sister of Nanda/Gaura--his two children and the

retinue, which perished in Rupkund for violating the sanctity of the sacred region. In his article 'The Rupkund Mystery-Solved' (Pranavanand, 1959), he emphasizes that the folk songs of Nauti have to be considered authoritative and that the Raja Jasdawal of Kannauj perished at Rupkund at the end of 14th century (Sax, 1991).

The legend of Jasdawal has it that the Raja of Kannauj, along with his pregnant Rani Balampa and his retinue, went to perform the *Raj Jat*, to absolve himself and his kingdom of the curse of Nanda. On the way, the dancing girls in his retinue, performed dances at a place, now known as Patar Nachaunia (i.e., dancing place), that enraged the Devi and the dancing girls were turned into stones which are said to be still at the place. The Rani also gave birth to a baby girl (the place is known as Balampa ka Sulera). This caused pollution in the sacred land. The Raja had invited the wrath of Mahadev and Parvati (Nanda) due to defilement of the sacred land by the delivery of a child and the presence of dancing girls on the pilgrimage route. The wrath of gods caused heavy hailstorm and snowfall that killed the whole party. The folksongs of the Nauti and the region are sung by the womenfolk even today, vividly describing the whole episode.

The Anthropological Survey of India studies also show that the victims may have originated from different ethnic groups as indicated by the stature estimations. There were at least two groups, one medium to tall and the other short to medium, the first perhaps comprised the pilgrims from western U.P., Rajasthan and Punjab and, the second, the local hill people who may have acted as porters and guides. These results could be obtained mainly because the survey had a large sample of long bones; on the other hand, the Lucknow study was based on a much smaller sample of long bones, which meant that this study missed the presence of the short to medium statured individuals as these samples included long bones of only 9 medium to tall individuals. However, measuring the long bones other than femora, the Lucknow University's later investigation also came to a conclusion similar to that of the Anthropological Survey of India that, in the assemblage of human remains, there were at least two groups, one medium to tall and the other, medium to short (Singh, 1981).

Since the legend of Raja Jasdawal of Kannauj says that he, along with his retinue, perished in Rupkund, the AnSI carried out an Anthropometric and Blood Group Survey in Kannauj, Mainpuri and Etah districts of western U.P. and Dholpur in Rajasthan to see if the results of Rupkund remains agreed or matched with the data of Rajput populations of these districts. It was later found that the results did match with each other in respect to stature and ABO blood groups in case of the bone and marrow samples from Rupkund remains (Department of Anthropology, Government of India, 1959).

Another important aspect that should be considered is whether all the bodies, totalling around 500 or so, were from the same tragic occurrence. It has already been stated that the track traversing Jyunra Gali just above the north-eastern part of the lake shore is most dangerous and it becomes utmost difficult to negotiate it in rainy or snowy weather. It is possible that pilgrims during different Raj Jats may have fallen to their death while negotiating that part of the track. The name Jyunra Gali, i.e. the Gali of death, does indicate the possibility. This is also supported by the Lucknow University investigation which says: "The entire bone deposit is not of the same age but of successive stages, as some of the bones show signs of mineralization whereas others are fresh. This fact is supported by fluorine, ash and calcium contents" (Singh, 1972).

There are many loose ends in the above interpretation but the Radio-Carbon dating eliminates the possibility of the first theory propounded by J.M.S. Negi that the victims comprised of the fleeing army of General Zorawar Singh who was killed in 1841(i.e. only 150 years ago). Besides, the fleeing army of Zorawar Singh could not have reached Rupkund from western Tibet as, at present, there is no route to Tibet through Rupkund.

The cultural material therefore collected by all three expeditions in 1956, and before them by *The Statesman* and Forest Department expedition in 1955, as well as witnessed by the pilgrims of Raj *Jat* in 2000, have a decisive role in identification of the victims. The material consists of leather chappals, sticks(both of bamboo and cyprus), pieces of glass bangles, T-shaped resting sticks usually used by porters to support the load while resting and by *sadhus* or mendicants. Wooden parts of *damru* (percussion instrument) or pots and a number of other articles associated with the pilgrims indicate that the victims were none other than pilgrims. Whether they were the legendary Raja Jasdhawal and his retinue or some other pilgrims, is the moot question that needs to be answered. Yet, another evidence in support of the pilgrim theory is the finding of a giant stick, which seemed to have been cut from cyprus and measuring roughly 12 feet long and 1 foot in circumference as reported by Mahesh Chandra. Such a ‘Giant Stick’ could only be used as part of a *Doli* carrying a God/Goddess or somebody of high birth, but most probably a deity.

The tragedy occurred some 500 hundred years ago (between 500-800 years) as determined by carbon 14 dating on two series of samples each of Anthropological Survey of India and Lucknow University, Department of Anthropology.

None of the study is, however, conclusive regarding the identity and origin of the victims. Thus, the question about the identity of the people that perished in Rupkund has not been firmly answered yet. The means and techniques that existed then for solving the mystery had not succeeded; nor are the various theories taking round, fully satisfactory. It is also yet to be ascertained as to what was the number of people that had perished.

In November 2002, I presented a paper entitled ‘Rupkund Human Remains, The Unresolved Mystery’ in a seminar on ‘Bio-Cultural Profile of Central and Western Himalayas’ organized by the North-Western regional office of the Anthropological Survey of India, Dehradun. The paper was taken notice of by the media and both *The Times of India* and *Hindustan Times* published the story. Soon after, I was approached by Miditech, a television software production house that was planning to produce a documentary on Rupkund and asked if I could join them. I declined. After a few days, they informed me that Prof. Wolfgang Sax of Heidelberg University in Germany had agreed to join them and again asked if I could also join. I declined again for a simple reason that firstly it was a commercial venture I did not feel to be part of and secondly because they wanted to build a story around the facts which was not agreeable to me.

In September 2003, an expedition under the leadership of Professor Sax, financed by the National Geographic magazine, visited Rupkund and succeeded in bringing back 30 human body remains and some cultural artefacts. They had also collected some tissue samples for the extraction of DNA which were sent to Professor Lalji Singh of Centre for Cellular and Molecular Biology, Hyderabad, for analysis. The skeletal material was examined by Prof. S.R. Walimbe and Prof. Joglekar at Deccan College, Pune. For dating, the material was sent to Oxford University’s Radio-Carbon accelerator unit and was done by Dr. Tom Higham, using Accelerated Mass Spectrophotometric method, which determined that the tragedy had occurred in the 9th century, about 850 years ago. It was also determined that all the victims died at the same time, i.e. , it was a one-time occurrence.

As regards the DNA, it is said that there was unique mutation in the mitochondrial DNA of three samples which pointed out that they belonged to the same family. Also, the mutation was unique in the sense that it occurred only in certain population in Maharashtra. In case of skeletal material, it was found that there was some extra growth on the skull which is a genetic deformation and also found in certain population of Maharashtra. Joglekar is said to be certain that the population comprised the Chitpavan Brahmans of Konkan in Maharashtra, as these mutations are specific to them. As regards ethnic composition, Prof.

D.K. Bhattacharya of Delhi University found that “the remains were of two distinct types. One was markedly taller, while the other, smaller kind shared a distinct depression in their skulls-such as what one might find on porters carrying weights with head straps.” (For details, see *Outlook*, 8th November 2004, and *The Hindu*, 25th January 2005)

The National Geographic made a documentary entitled ‘Skeleton Lake’ and aired it on their Channel on 9th November 2004. The documentary claimed that the mystery had been solved once for all. The victims were said to be pilgrims and the tragedy occurred about 850 years ago as determined by Accelerated Mass Spectrophotometric method at Oxford University, UK. The DNA analysis conducted at the CCMB revealed that the victims were Indians from a particular region of India and were related. It is not known how many samples were analysed and whether the sampling was representative of 500 or so victims.

The claim of National Geographic, that the mystery had been solved, is far from acceptable since it also says that the victims were pilgrims, and so on. The uncertainty still remains as to the number of victims of the tragedy and whether it was a one-time occurrence.

It would not be out of place here to examine the claim by the National Geographic (that the mystery had been solved) in the light of the findings of Anthropological Survey and the University of Lucknow.

All three claims that the victims were pilgrims of two distinct ethnic types: one, medium to tall, probably pilgrims from outside Uttarakhand and the other, medium to short stature, probably the locals serving as porters and guides. They also claim that there were women and children among the victims.

There is a remarkable commonality among these claims. But it is to be noted here that the Survey and the Lucknow University had already made the findings in 1958, therefore the finality claimed in 2004 does not arise.

In spite of the claims, some questions remain unanswered and they are: Was the tragedy a one-time occurrence? Oxford University claims that the Accelerated Mass Spectrophotometric method indicates that all the victims died at the same time. But how many samples were tested? If the number of samples that was collected was, say, 30(if at all the samples were tested), can they represent the number of victims which numbers somewhere between, say, 300-500?

The Lucknow University findings say that in the assemblage of the bones, some show the sign of mineralization whereas others were fresh, which shows differentiation in age.

Similarly, with reference to the DNA test, it may be asked: how many samples were tested? It is accepted that those tested may have been of the same family or close relatives, but what about the whole lot of victims?

Also, in case of skulls, how many were examined? Can the examination of one or two or, say, four afford a generalization in respect of the whole lot of victims?

It has been reported that during different Raj Jats, some pilgrims did fall down from the Jyunra Gali to death and their bodies also got mixed with the assemblage. Few hundred years back, the Raj Jat was stopped due to such accidents and was resumed only towards the end of 19th century. Then there had been frequent instances of self-sacrifice (*Atmosarg*) from the Gali, which had been stopped by the Government in 1931.

So it seems that it was not a one-time occurrence. It may be true that the bulk of the bodies may belong to pilgrims who came 850 or so years ago, but more bodies were being added at later dates due to various causes. I call it “Mystery Yet Unresolved” and unresolved it is to this day.

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