

## **Recent Archaeological Evidence of Ancient Iron Industry Carried out Around the North –Western Slope of Sinharaja Forest in Sri Lanka**

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### **1. Abstract**

The Sinharaja Rain Forest in Sri Lanka which is one of the world heritages is more esteemed as a museum of natural history. According to environmentalists Sinharaja rain forest is a piece of land untouched by man. Fields of material scatter pertaining to archaeological heritage of Sri Lanka are spread where there had been human settlements. The chief objective of this study is the identification of early human activities in the light of archaeological proofs and the investigation into the technical knowledge of iron industry the early man possessed. Although the biological importance of the Sinharaja Forest has been amply discussed by many a researcher the human activities or the archaeological reminders pertaining to this “museum” seems to be a subject yet awaiting a lively discussion. Exploratory study carried out in years 2012 and 2013 has identified archaeological proof of iron industry that had been in operation around the hillside of the north-western part of the Sinharaja forest in the distant past. A large quantity of fragments of iron ore is found on some strips of land in Puhulpelpola Suduwelipota, a region found on the road running from Veddagala North to Wewagama, on the fringe of Sinharaja Forest lying in Kalawana Divisional Secretary region which is part and parcel of the reserve where the law is extremely strict. Potsherds found in the area surrounding this place point to the mode of technology of iron and that of distribution of settlements in the region in the distant past. In the study pertaining to distribution of settlements and historical time limit of the Sinharaja Forest it is clearly of much importance that particular attention be given to these finds of iron ore/iron slag. These finds further confirm the importance of the extension of archaeological research over Sinharaja which is a natural rain forest.

**Keywords:** *Sinharaja rain forest, Puhulpelpola Village, Iron slag, Iron industry, Archaeological Evidence*

## **2. Introduction of study area**

Sinharaja Forest is the foremost among the wet evergreen forests in Sri Lanka. It is remarkably rich in biodiversity and has already been named as one of the world heritages. The Siharaja which is some 11.187 ha in extent spreads in all three districts Ratnapura, Galle and Matara. This forest lies between lat No. 6<sup>o</sup>21 and 6<sup>o</sup>27 and long. E. 80<sup>o</sup>21 and 80<sup>o</sup>34 in the south-western region in the island. (De Soyza and Raheem 1996: 07) This reserve which is 25 km in length is 7 km and 3 km in breath respectively at maximum and minimum points. (Perera 2001: 01) This forest includes a reserve about 6091 ha in extent and a proposed reserve 2773 ha in extant.

Eight principal villages connected to the Sinharaja forest form the basis of this study. These 8 villages lying on the north-western hillside of Sinharaja forest belong to four principal Grama Niladhari Divisions. The villages Kudawa, Petiyakanda, Pitakele and Ketalapattala come under Kudawa Grama Niladhari Division. While village Kongahakanda belongs to Panapola Grama Niladhari Division village Kosgulana comes under Hapugoda Grama Niladhari Division. There are two Grama Niladhari Divisions called Veddagala North and Veddagala South. It is the small village known as Puhulpelpola Suduwelipota belonging to Veddagala North which forms the chief field of this study. Reminder of iron ore (iron slag) discovered on the road running from Veddagala North to Wewagama via Puhulpelpola and identified as traces of iron industry carried out by the early man clearly furnishes evidence for the existence of early human settlements in the area. The villages found in this region cannot be identified as new settlements. These villages which reflect exceedingly traditional features can be easily called as traditional villages rich in rural life styles.

## **3. Primary expedition of villages on the north-western hillside of the Sinharaja**

A primary archaeological expedition was made in the north western slope of the Sinharaja in the year 2013. On this exploration carried out using the village Puhulpelpola Suduwelipota as the focal point of research a number of lumps and shreds both of iron ore (iron slag) was identified. Potsherds also were discovered scattered here and there in this study area. In this primary study more emphasis was laid on Suduwelipota where iron ore has

been spread. The fieldwork was confined within the objects of archaeological value found on the surface.

### **3.1 Objectives**

The primary concern was concentrated on identification and reporting of fields belonging to the north-western Sinharaja where iron ore is scattered. What iron ore symbolizes is the manufacture of iron, an ancient occupation. Once the concentration is made on iron ore which is a by-product of the manufacture of iron it will naturally offer an opportunity for a study of the possibilities of the distribution of settlements and of technical skill those early settlers possessed. The iron ore in question will be of use to archaeologists as a material reminder of worth in an investigation into how the human settlements has existed surrounding the Sinharaja. It is with a view to expanding opportunities for fresh researches pertaining to human activities and the pattern of settlements of the past that these facts about the discoveries in question are presented. In accordance with the traditions that prevail in villages on the north-western hillside of the Sinharaja forest their history seems to go back to some centuries. Further, as traditions claim weapons had been manufactured in this region in the past (Wijesinghe 2009: 06).

Moreover, there has been the need as one of the objectives of this study for identification of archeological finds which would prove whether the manufactures of iron was on operation in the villages around the Sinharaja.

### **3.2 Methodology of research**

Interviews was the method adopted to gather traditions and other information about the scatter of archaeological finds already discovered and about places where such discoveries could possibly be made in future. Then the method employed to identify the archaeological finds found in the region was site exploration method. It was during the primary exploration carried out in 2013 that the scatter of iron ore, the proof of the manufacture of iron on the north-western slope of Sinharaja in the distant past was discovered.

Iron ore and potsherds found in Puhulwelpola impart to some extent feasibly clear information about the history of colonization in the region. For the formalization of the methodology employed it will be important to take care of the following facts adopted by Raj

Somadeva relating to the process of field archaeology in identification and interpretation of archaeological finds.

- i. Site formation process
- ii. Size of the sample universe
- iii. Resource potentials
- iv. Micro environmental context
- v. Impact of the recent site modification
- vi. Site chronology

(Somadeva, 2006)

By means of a primary investigation of this sort it is not easy to assign a definite date to the iron ore or potsherds already identified. What this investigation enabled to identify includes merely the site formation process, size of site of the scatter, resource potential of the area, and the human influence.

#### **4. Ancient villages connected with (depending on) the north-western part of the Sinharaja**

As Sinharaja is a reserve of strict enforcement of rules movements of people visiting the place are under control.

Historians are of the opinion that geographical naturalness and climatic advantage had had a tremendous influence on the distribution of settlements in Sri Lanka. As the Sinharaja is a dense forest a majority of people thinks that there had been less human pursuit in or around it. Compared the biological value of the Sinharaga with its archaeological worth sufficient care has not been taken on the latter owing to the above reason. So in this quest made about the history of human settlements in the region which had been neglected by historians and archaeologists the help of traditions had to be sought. The residents of the Sinharaja believe that its settlements are as old as Anuradhapura period. (Sirisena 2013). Wijesinghe who makes reference to Portuguese registers (called the tombsoos) says that the villages surrounding the Sinharaja were in the process of being spread by the 17th century. He believes that “due to broadening of those villages lay between the forest of the Adams Peak and that of Sinharaja the two forests detached from each other.” (Wijesinghe 2009:06) Inhabitants of the region assert that there were radial paths running in various directions through the forest even in the distant past and some of those villages which flourished then

have now been abandoned. The inhabitants further recognize that even in the past people moved about from the south-western part of Sinharaja to the villages that lay in the north-western part of the jungle. “The temples at Batuwangala and Kalubowitiyana were” believed to have been built by King Valagamba who again is said to “have got the inhabitants of those two villages made weapons such as bows, swords etc. and then arrived in Kalavana with his retinue.” (Wijesinghe, 2009:06). According to the traditions prevailing in the region notwithstanding the absence of a written history pertaining to the villages surrounding Sinharaja it still has an oral history according to which the place has a considerable chronicle. But to ascertain information such as the mode of distribution of settlements in the past, the nature of day to day lifestyle of those inhabitants and the technological skills they possessed “the approaches relevant are through archaeology and ethnic archaeology. In this study opportunity knocks to identify material reminders germane to proofs based on traditions of the villages surrounding Sinharaja forest.

## **5. Scatter of iron ore surrounding the north-western part of Sinharaja**

### **5.1 Spread of iron ore**

The village Puhulwelpola where the scatter of iron ore is found lies about 3 km away on the road running to Wewagama from Veddagala North situated on the periphery of Sinharaja. This region comes under Kalawana Provincial Secretary Division. The scatter of iron ore occurs mostly at the summit of the hill through which the Puhulwelpola – Suduwelipota road runs. At the summit of the hill the forest becomes scanty. As the both sides of the road has been washed out by rain water and the iron ore has come up. Iron ore is mostly found along the road within an area some 50–100 metres in extent. While large lumps of iron ore are found very near the road small lumps seems to be lying scattered to some 500 metres or 1 km distance.

### **5.2 Amount and technology of iron ore**

The iron ore that was observed in Puhulwelpola Suduwelipota according to size can be divided into three categories:-

1. Considerably large lumps (20x40cm)
2. Small lumps (8-10cm)
3. Very small lumps (0.5x1cm)

Considerably large lumps of iron ore found beside the road clearly suggest by the mark they bear that they have been driven out of the hearth. Colours of pure lumps of iron ore ranges from light black to dark black. Observation revealed that not only these lumps took the particular form as a result of the overflow of the hearth that occurred at a number of occasions in the form of edges but also that some of them contained in the middle of them a vacuum. As the hearths employed in melting iron ore were in operation for such a long time that the waste heaped up became so massive lumps. It can be clearly noticed that with the passage of time as a result of fragmentation some of them were reduced to small pieces. Then as a result of pursuit such as construction of roads, transport and other modes of human action not only reduced those piece of iron ore further but also were scattered more and more in the surrounding regions.

## **6. Review**

The Sinharaja which is a tropical evergreen rain forest is one of the most important and primary forests in Sri Lanka. An archaeological expedition performed in the villages lying in the south-western slope of this region brought to light that in the distant past melting of iron ore had been in operation in this region. The discovery of iron ore made on a hilly road in the region Puhulpelpola Suduwelipota manifests that the manufacture of iron as an industry in which a considerable manpower was employed took place in the distant past. It can be conjectured that the manufacture of iron which satisfied the needs of the people of the region must have been carried out through ovens operated by means of energy produced by wind. There is no written history available for the north-western hillside of Sinharaja where iron ore, the proof has been found. But this evidence is extremely important to identify those facts such as ancient human settlement existed in this region, their long history, skills those settlers possessed, and nature of their life styles. But if a deep archaeological expedition is carried out in this region it can be reasonably expected that a host of valuable proofs could be made available. Sinharaja does not get a worm reception at archaeological discussions held on early human settlements or technology of iron in Sri Lanka. The reason for such treatment is not that the region lacks archaeological value but insufficient research pertaining to it.

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**Attachments-** Discovered of iron slag (field research 2013 March)



Figure.1 Puhulpelpola-Suduwelipota village



Figure 2. Very small lumps (0.5x1cm)





Figure 3. Considerably large lumps (20x40cm)



Figure 4. Iron Slag



Figure 5. Arcaeological Evidence of Ancient Chopper



Figure 6. Sinharaja Forest (North –Western Slope)