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THE COPPER HOARD ARTIFACTS IN THE S C ROY COLLECTION, RANCHI*

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PART ONE

While preparing a study of the Bronze Age metalwork of India, I was fortunate in having had the opportunity to study the relevant artifacts in the Rai Bahadur S.C. Roy Collection, which is presently housed in the Man in India office and library in Ranchi. These enigmatic objects, a reflection of S. C. Roy's manifold and pioneer research, have received astonishingly little scholarly attention despite their great importance as practically the sole remnants of the indigenous culture of eastern Chota Nagpur presumably during the second millennium B. C.

Interested in the ethnology and prehistory of southern Bihar, Roy conducted survey work there from the late 1890's till his death in 1942. Although Roy's peregrinations occasionally brought him as far afield as Assam, usually they centred on the Ranchi district. He was the first scholar to report the Chota Nagpur group of Copper Hoard implements, the latter which heretofore were known almost exclusively from the Ganga-Yamuna doab.[1] In 1915 Roy referred to "heavy copper celts" and in 1916 to "copper bar celts"[2] which he attributed to the mythical Asuras who he felt were the early predecessors of the modern Asur. Roy was in the enviable position of having discovered a wealth of prehistoric and early historic materials. But without detailed excavation reports and analytical studies, it was difficult to make historical sense particularly of the diverse Hoard strayfinds. This

* Part One of the paper was authored by P. Yule; Part Two by Monika Thiel-Horstmann.

situation by no means can be attributed to a want of skill or energy on Roy's part. On the contrary, to this day few intensive studies have penetrated the archaeology of the area. Understandably Roy was neither able to fix the absolute date of the relevant metal finds nor that for the origins of the Asur. While 'copper' objects occasionally were reported, for example, at Dargama and on the Harra Chowra Darh at Bichna, in the vicinity of "Asura" sites, with their brick foundations, tanks, cinerary urns, copper ornaments, stone beads and smelting remains in *asur garhs* (forts) and in *asur sasans* (cemeteries), Roy stated clearly that no Copper Hoard implements were found in the 'Asura' graves themselves.[3] The creators of these metal finds still remain obscure and for the time being we can do little more than repeat Roy's hypothesis of 1915 that the Hoard objects belong to the so-called "Copper Age", prior to the early Iron Age.[4] Presumably in the Iron Age or later new artifact types succeeded them.

Roy's collecting activities provided a start for the nascent Bihar and Orissa Research Society at Patna. Metal finds which Roy himself discovered and those presented to him he presumably at first stored in his home. Sir Edward A. Gait, the lieutenant governor of Bihar and Orissa also came into possession of some 'celts' at this time, possibly from Roy. Examples were stored in the Commissioner's Bungalow and later in the north wing of the Patna High Court until a suitable museum was built in 1929. The Hoard objects were inventoried and subsequently some were exchanged for objects from other institutions. Thus a few examples found their way in the 1920's to the Museum or Archaeology and Anthropology in Cambridge and also the Lucknow Provincial (now State) Museum. In return, the Patna Museum received some late second millennium British flanged palstaves from Cambridge and some Copper Hoard implements from Lucknow. The objects exchanged from Patna to other institutions are still identifiable by the three-digit inventory numbers originally given them. Some of these artifacts from the Chota Nagpur reportedly also were sent a few years ago to the Orissa State Museum in Bhubaneshwar. Were it not for Roy's activities, the Chota Nagpur group of metal artifacts would be as good as unknown.

At the time of writing the 132 Hoard objects in Ranchi comprise the largest collection of prehistoric metal finds from Chota Nagpur in existence and they represent the second largest collection of Copper Hoard objects *per se*.[5] At least one artifact-type is unique to the collection, type VI axe-ingots. Eight different types are represented, which are wholly characteristic of the southern half of Bihar in the Bronze Age. Types represented in Ranchi are described as follows in the typology of all Indian prehistoric metal objects[6] :

A*xe-type VII* (Fig. 1a)

Viewed in plan, a broad lead edge; sides converge concavely from the blade tips to the rounded butt; trapezoidal in cross section; blunt lead edge; biconvex in profile. Except for the two examples from Chota Nagpur (in the Roy Collection)[7] all derive from the Gungeria hoard, Dist. Balaghat, Madhya Pradesh.

L range	13.7–23.0 cm
mean	16.96 cm
L/MW range	2.03–3.21 : 1
mean	2.68 : 1
Weight range	706–2116 gm
mean	1513 gm
Total examples known :	25

Axe-ingots, type I (Fig. 1b)

In plan 'shouldered' with the lead portion comprising some two-thirds of the entire length; butt end is narrower than the front and is squarish. Except for a singleton from Haryana (presently on deposit at the Kanya Gurukul, Narela) all seem to derive from hoards in the Chota Nagpur area.[8]

L range	18.0–26.2 cm
mean	19.86 cm
L/MW range	1.12–1.38 : 1
mean	1.26 : 1
Weight range	1500–c. 3000 gm
mean	c. 2380 gm
Total known examples :	17

Axe-ingots, type Ia (Fig. 1c)

In plan large, 'shouldered' and broad with a squarish butt end; in profile all edges blunt; relatively thin (av. 1.43 cm); as a group relatively homogeneous in shape. Most of the examples derive from the southeast border area of present day Bihar.[9]

L range	19.0–25.9 cm
mean	22.8 cm
L/MW range	1.11–1.24 : 1
mean	1.16 : 1
Weight range	1940–c. 4000 gm
mean	c. 3293 gm
Total known examples :	17

Axe ingots, type Ib (Fig. 1d)

In plan the lead portion is relatively large, 'shouldered' and forms a semicircle spanning 180-230 degrees; butt narrower than front; both sides curve inward; edges smooth and dull; as a group relatively homogeneous in shape and size. The majority derive from the eastern Chota Nagpur area.[10]

L range	19.1–27.1 cm
mean	24.3 cm
L/MW range	1.08–1.28 : 1
mean	1.13 : 1
Weight range	1870–4250 gm
mean	2964 gm
Total examples known :	12 including variants

Axe-ingots, type III (Fig. 2e)

No sharp edges or corners; in plan lead edge convex: sides taper to a flattish or roundish butt; crude casting technique is diagnostic; in section, particularly at edges, clearly planoconvex; 'dimple' impressed on convex face of some; surface frequently granular. This type derives almost exclusively from the eastern Chota Nagpur area of Bihar.[11]

L range	13.5–22.9 cm
mean	15.2 cm
L/MW range	1.53–1.8 : 1
mean	1.65 : 1
Weight range	700–2700 gm
mean	1700 gm
Total examples known :	91

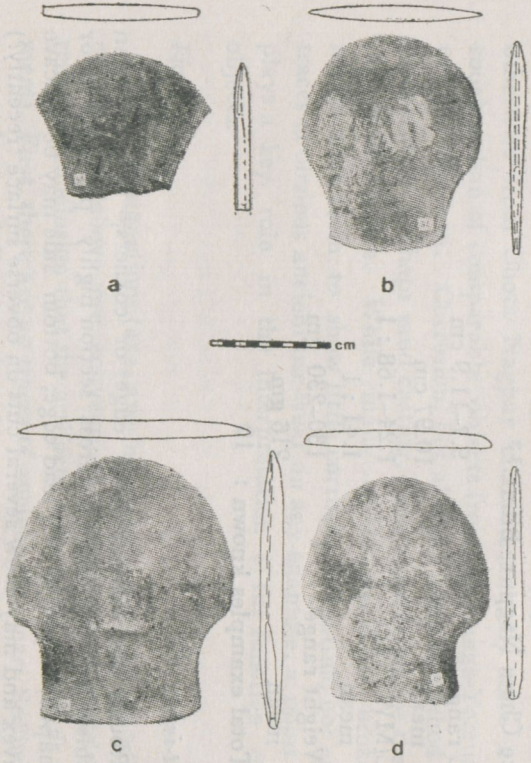

Fig. 1. Chota Nagpur Copper Hoard artifacts : a axe, type VII; b axe-ingot, type I; c axe-ingot, type Ia; d axe-ingot, type Ib.–Scale 1:4.–all derive from 'Chota Nagpur'.

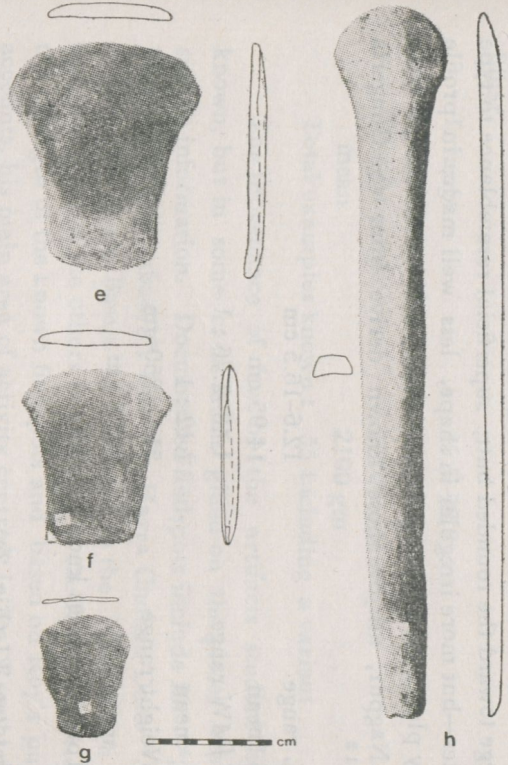

Fig. 2. Chota Nagpur Copper Hoard artifacts : e axe-ingot, type III; f axe-ingot, type IV; g axe-ingot, type VI; h bar celt-ingot.–Scale 1:4.–All derive from 'Chota Nagpur' except e which is more specifically from Biru (Dist. Ranchi).

Axe-ingots, type IV (Fig. 2f)

In plan convex lead edge; slightly concave side edges which converge toward the rounded butt; superficial resemblance to type VII axes—but more irregular in shape, less well made; in profile slightly planoconvex; rough cast. Except for one example from Chota Nagpur, all of those known derive from the Gungeria hoard.[12]

L range	12.6–16.5 cm
mean	14.95 cm
L/MW range	1.48–2.76 : 1
mean	2.12 : 1
Weight range	514–1250 gm
mean	872.3 gm
Total examples known :	11

Axe-ingot, type VI (Fig. 2g)

Irregularly and variously shaped; formed simply by molten copper poured onto a flat surface; in plan lead edge roughly convex and broader than the butt; in profile relatively thin; especially rough workmanship. All of the examples bear the nominal provenance Chota Nagpur, Bihar.[13]

L range	9.7–11.9 cm
mean	10.97 cm
L/MW range	1.24–1.68 : 1
mean	1.41 : 1
Weight range	130–230 gm
mean	216 gm
Total examples known :	10

Bar celt-ingots (Fig. 2h)

Rough cast without sharp edges or corners; long; in plan with chisel-like lead edge; in cross section highly planoconvex or bell-shaped; in profile dull lead edge; bottom side may be concave or convex and may show several cuts on obverse surface (recently?) perpendicular to length; casting skin common.[14] Important find

spots include Bhaktabundh, Hami, Harra Chowra Darh and Kamdara; most examples bear the provenance Chota Nagpur, Bihar.

L range	35.5–58.8 cm
Mean dimensions	45.91 × 5.77 × 2.26 cm
Weight range	1710–c. 3100 gm
mean	2100 gm
Total examples known :	55 including a variant

The provenance of few of the artifacts studied here are known, but in some cases labels glued on the pieces themselves supply information. Documented findspots include Biru[15]; "Dist. Manbhum" (Dhanbad)[16], Gola[17], Harra Chowra Darh[18], Kamdara[19] and Thana Bassia[20]. Gola lies in the Hazaribagh district but nearly all of the others are located in the Ranchi district. On the strength of the known findspots and based on Roy's published accounts, his main area of activity centred in the Ranchi district. Thus, for metallic artifacts without a known provenance, the conventional "Chota Nagpur, Bihar" has been used here throughout.

The prehistoric metal objects of the Roy Collection and those otherwise from Chota Nagpur characteristically have a surface rougher than of comparable objects from the Ganga-Yamuna doab or from Haryana. Corrosion, but also the simple method of low-temperature, perhaps sand casting, seem responsible for the roughness of the surface. While many of the pieces are broken, the breaks often seem to show little corrosion or patina, nor are there traces of obvious ancient use-wear on any example, a point which plays a key role in the interpretation of the function of these objects.

Function

The designations (axe, axe-ingot etc.) which I have given the object-types above are conventional and based ultimately on the reasoned conclusion that the artifacts were not utilized as implements. First, there are no traces of ancient use-wear. Second, most are too heavy, dull or rough to have served the roles which writers customarily ascribe them. Axe-ingots are not blanks which were

later to be forged into axes or hoes, for no known prehistoric axes resemble them in shape. Moreover, prehistoric axes are nearly unknown in this area. The bar celt-ingots have occasionally been discussed as digging points for mining or cultivation an unlikely interpretation since they are far heavier than digging sticks, for example, from modern tribal India.[21] Nor do they find significant parallels among known early ard points.[22] Unfortunately, none of the relevant objects from Chota Nagpur has ever occurred in a controlled excavation, the main handicap confronting a serious study of this material and its associated culture.

Conclusions

Certain sites have yielded Hoards of the Chota Nagpur Group of which at least a few details are known of the find circumstances (Dargama, Hami, Parihati).[23] But these provide no unequivocal evidence for a deposition in either burials or in settlements and our Hoard objects may well have been buried simply in isolated deposits. As opposed to traders' or casters' hoards, grave goods or other kinds of caches, in view of observations on use-wear, a hypothetical votive deposition of ingots seems a likely interpretation. But the one level of meaning need not necessarily exclude the other. The occurrence of hemispherical copper ingots, sometimes broken (from Aguibani in West Bengal) in order to facilitate melting, gives a hint of a metallurgical activity, if not for the entire Chota Nagpur Group, then at least for the objects of this particular hoard. Bar celt-ingots also are frequently (primary purpose ?, modern ?) broken, perhaps for the same reason.[24] Why some ingots are hemispherical and others axe-shaped or in the form of a bar celt-ingot remains unknown.

The Hoards could also be interpreted as potlach offerings, whereby for various reasons quantities of precious objects are discarded, sacrificed or destroyed. Too, striking is the fact that the usual artifactual repertoire of ancient and modern Indian villages, such as knives, digging tools and arrowheads are absent in the Copper Hoards. If we discount an 'Asura' authorship (*infra*) for the Hoards, it would have been a disturbing thought for Roy, as it is for the modern archaeologist, that we possess no objects of daily

life for the inhabitants of Bronze age Chota Nagpur. In fact the latter day archaeologists have hardly exceeded Roy's pioneer efforts.

PART TWO

As stated above, S. C. Roy ascribed to the belief that the authorship of the copper artifacts which found their way into his possession could be attributed to the mythical Asuras. No fresh evidence to the positive or to the negative of his hypothesis will be produced, but rather, on the basis of the relevant literature, the following aims at giving the archaeologist reader an idea of the genesis of Roy's assumption.

The modern Asur form the starting-point of Roy's conception. They are a population originally of iron-smelters who live in the Netarhat Plateau situated in North-West Chota Nagpur in Bihar.[25] They are also called Agaria.[26] The Asur live in the same area as the Munda, Kharia and Oraon tribes. Their Austroasiatic language, Asuri,[27] belongs to the same stock as Mundari and Kharia, whereas the Oraon speak a Dravidian language. This linguistic affiliation does not, however, imply an ethnic one. The last mentioned relationship remains an open question.[28] In terms of physique, the Asur seem to stand apart from the Hindu blacksmiths of Central India.[29] Groups resembling the former inhabit much of Central India. For this reason V. Elwin makes reference to a Central Indian "Agaria belt".[30] Due to the decline of their iron-smelting industry in modern times, the Asur first took to slash and burn cultivation[31] and nowadays they are agriculturalists living in permanent settlements. Iron-smelting is no longer their means of subsistence. Asur tradition recalls their origin from a place called Asurgarh, "Asur Fort".[32] Architectural remains of brick-buildings of a monumental scale and of other constructions such as tanks and mudbuildings reportedly exist in the Asur area.[33] Another tradition of the Asur, mentioned by S. C. Roy, claims one of their former dwelling places to have been Ghosi, near Azamgarh, where Roy recorded similar remains.[34]

These characteristics of the Asur—that is, metal (iron)-smelting, non-Aryan physique, and a legendary connection with monu-

mental building activities—served Roy as his criteria for searching the past. Most important of all, however, was the name of the tribe, Asur, which inevitably awakens an association with the Asuras who figure prominently in Vedic and Sanskrit literature. When the Indo-Aryan groups who became the authors of Vedic literature came to India, the Asuras played a prominent role already, and they also occurred in the pantheon of distant Iran.[35] The Sanskrit word *asura* seems to mean simply "lord" and is expressive of a demonic quality, in this way to be restricted later on to a class of demons. In the earlier portions of the Veda (middle or end of the second millennium B. C. ?)[36] they are already styled as demons but the word *is* also expressive *of* divine qualities.[37] In the later Vedic literary testimonia just mentioned and in the *Brāhmaṇas* (800 to 600 B. C. ?)[38] they appear as masters over strongholds[39] and as wielding a dangerous, ubiquitous creative power, *māyā*;[40] in epic mythology they appear as demons and master-architects. Epic mythology—by which term epic literature proper and the *Purāṇas* are comprised here—portrays them to rule over forts made of gold, silver and iron (*ayas*).[41] In this literature they appear as sharing their demoniac characteristics with the demons who are depicted as aboriginals, *dāsa* or *dasyu*. The latter are, however, not explicitly connected with metal-industry. To make it quite clear, the connection "Asuras-iron" is not a very early one. If we fix the nucleus of the Indian epics to the middle of the first millennium B. C. (and their redaction as text-corpuses is of course much later) we may say that by this time a motif emerges at the core of which lies "Asuras as demons who are experts in metal-industry". But by this time the Asuras had already been ranked among the other mythological and partly "aboriginal" demons.

Metal (*ayas*) is already mentioned in the early strata of Vedic literature[42] which may belong to a time between the middle and end of the second millennium B. C. Significantly, however, the Asuras are not yet connected with metal in the early phases. Early Aryan settlement in India may have been partly synchronous with the beginnings of iron-working in North-West India, where iron seems to have been in use from the 8the/9th or 7th/6th century B. C., the estimate varying in the archaeological discussion.[43]

In the Indo-Gangetic divide and in the Upper Gangetic valley iron is in evidence from about 800 B.C.[44] In Bihar, as in the whole zone of the middle Gangetic plain, iron has been testified after 800 B. C.[45] Iron in Malwa and in South India seems to antedate the finds in the border areas.[46] The archaeological material does not encourage the hypothesis of the diffusion of the technique of iron-work from west to east. As far as the early Vedic Aryans are concerned, we can safely assume that they settled in Northern India exculsive of the area beyond the Yamuna.[47] This implies that what is recounted about metal in those early Vedic documents does not refer to any place beyond the Yamuna.

The conclusions which we can draw from these observations are minimal. All we can say is that it seems wise to assume that in the 'epic' times including the *Purāṇas* (which have been elaborated on well upto the middle of the present millennium) the demonic power of the Asuras and the existence of ethnic groups who worked metal became fused. We cannot, however, identify the Asuras with non-Aryan iron-smelters, with any real conviction.

That the Asuras are called builders of forts is no convincing testimony for the theory that the present-day Asur are descendants of the builders of the so-called Asurgarhs. It seems far easier to imagine that certain monumental architectural remains were called Asura forts secondarily under the influence of Hindu mythology, which flourishes in the tribal area and offers this well-known motif.

Roy emphasized the theory that the Asuras might have been iron-smelters or copper-smelters of non-Aryan origin[48], living in Northern or North-Western areas of the sub-continent before retreating to Chota Nagpur, elements which became the substrate of early mythological literature.

In trying to bridge the vast historical gulf between the early historical situation and the present day, Roy made one more point to support his hypothesis that the 'Asur were aboriginals, the same ones whom the texts mention in their mythology. He made use of the Munda Asur myth, the *Asur-ka (ha) ni* (an Aryan word,

not a Mundari one !). The Oraon who came to Chota Nagpur after the Munda and settle with them now, also adopted the same myth.

The myth is known to the Asur too, but in their case the story has an end betraying Oraon cultural influence. Outside the Asur area, the myth exists also among the Agaria iron-smelters of Central India.

The Mundari version has been published in several English editions.[49] Therefore, for the present purpose may it suffice to mention solely those motifs of the myth that are essential to our ethnohistorical question.

Thus :

(1) Munda and Asur shared a common territory.

(2) The Asur were iron-smelters. The heat and smoke emitted from their furnaces scorched all vegetation and cattle. The Asur were extremely poor in cattle, and instead of living as agriculturalists, stubbornly went on working on iron. "They were greedy, they destroyed the order of the world." Their obnoxious ways offended also Singbonga, the Supreme Being of the Munda.

(3) His warnings being unheeded, Singbonga descended to earth in the disguise of a boy covered with sores and lived in his tribe and with the Asur.

(4) The Asur do not listen to his warnigs to mend their ways.

(5) Singbonga makes the Asur use him as a human sacrifice. He enters their furnace; he is burnt in it and ascends covered from head to toe with gold.

(6) Using trickery (in arousing their greed also to own gold) he induces all male Asur enter the furnace too. All are cremated. They become *bongas*, as well as the Asur women, because when "he rises up towards the sky....they clutch his dress". He shakes them off. The places where they fall are henceforth populated by *bongas* (spirits).

(7) The *bongas* have to be propitiated lest they become harmful to the Munda. Such danger is especially threatening if the Munda tamper with the land where *bongas* reside (i. e. when clearing the forest).

This myth reveals the clash between iron-smelters and agriculturalists. The Munda subdue the Asur but the *bongas* still wield the power over the earth (soil), also over the uncultivated ground. So they have virtually remained the owners of their land,[50] despite the defeat they suffered at the hands of the Munda. This may very well reflect a historical situation in which the Munda assimilated the Asur territory.

In the Oraon version of the myth the Asur are grouped together with the Lodha, another iron-smelting group. They are again killed by the Oraon High God, become spirits, and have to be propitiated.[51]

In the Asur version, the myth ends with the Asur brother and sister surviving the annihilation of the tribe which happens as described in the Munda version. At the end of the myth they learn how to practice slash and burn cultivation, a practice in fact inherited from the Oraon.[52]

Among the iron-smelting Agaria outside the Munda area there is no trace in their corresponding myth of a defeat of their tribe by agriculturalists. Instead, the myth ends with the Supreme Being teaching them how to process iron-ore properly which is achieved by first burning a man in the furnace who is not restored to life.[53]

Roy draws attention to local traditions of all the tribes saying that they entered Chota Nagpur from the North.[54] In combining these traditions with the myth, one may conclude that the Asur came first, then the Munda, who defeated them, finally the Oraon (the Oraon coming latest is historical). Oraon tradition has it that their tribe entered Chota Nagpur before the first ruler of the Nagbamsi dynasty of Chota Nagpur (most probably of aboriginal origin) became king. According to the chronicles of the Nagbamsis, this event must have taken place in the first centuries of our millennium.[55] The evidence of the dynastic list is, however, contestable. If the time given in it is not too far from the mark, the Asur-Munda conflict must have happened considerably earlier. In this case the Asur-Munda affair would have to be pushed back to some time prior to the first millennium of our era which allowed

Roy to connect the present-day Asur chronologically to the Asuras as reflected in Hindu myth. This interpretation however, still does not allow or help him to identify ethnically those metal-workers whom the Vedic and epic literature bears testimony of. Regarding the identity of names, it is quite possible that the present-day Asur received their name on the strength of the motif of the epic Asura demons. But again this homonym cannot serve as a clue to the problem of an existant or non-existant ethnic affiliation. Sometimes ethnonyma do indeed represent the reduction of once wider-distributed pre-Aryan groups, clearly recognized as non-Aryans in Sanskrit sources, such is the case with the present-day Soara (Old Indian *Śabara*). In the case of the Asur it may be that because they formed part of the aboriginal iron-smelting groups of Central and Eastern India, they received an inherited original Indo-European name which lent itself because of the connotation of that name with metal workers in epic and puranic mythology.

From all this the conclusion follows that the identity of the authors of pre historic metal in India cannot be disclosed by Roy's chain of hypothetical reasoning. As Ruben said in the last sentence of his book on the Asur : "Die Frage und das vorgelegte Material verdienen jedenfalls weitere Prüfung".[56]

FOOTNOTES

Miss Mira Roy kindly permitted me (P. Yule) to study the metal objects in March of 1983. Her friendly hospitality and information on her father's scholarly interests made my work possible. Monika Thiel-Horstmann contributed the ethnographic discussion which forms the second part of the article. I abstracted some of the following as a talk in July 1983 at the 7th International Conference of South Asian Archaeologists in Western Europe. Certain aspects I deal with more closely in my book, *Metalwork of the Bronze Age in India* in press in the series Prachistorische Bronzefunde (henceforth, Yule, *Metalwork*). I consciously use the term 'Bronze Age' to describe the period under discussion.

1. Two so-called axe-ingots seem to have been reported earlier in the Rewa district of Madhya Pradesh, although little is known of their find circumstances and present whereabouts. W. Elliot, *Proc. Soc, Antiguarians of Scotland* 10, 1875, 693.

2. S. C. Roy, *JBORS* 1, 1915, 229; *Ibid.* 2, 1916, 482-483.
3. *Ibid.* 6. 3, 1920, 404. On the findspots see D. R. Patil, *The Antiguarian Remains in Bihar* (Patna 1963).
4. S. C. Roy, *JBORS* 1, 1915, 253.
5. The collection of the Kanya Gurukul in Narela, Delhi is considerably larger.
6. Yule, *Metalwork*
7. Inv. nos. 86, 88.
8. Inv. nos. 52, 57, 81-83, 127.
9. Inv. nos. 51, 53-56, 68, 91, 113.
10. Inv. no. 84.
11. Inv. nos. 48-50, 58, 59, 61-67, 69-80, 89, 90, 92-112, 114-126, 128-130.
12. Inv. no. 87.
13. Inv. nos. 39-47, 85.
14. Inv. nos. 1-21, 23-38, 131.
15. Inv. no. 77 : axe-ingot III.
16. Inv. no. 52 : axe-ingot I.
17. Inv. no. 56 : axe-ingot Ia.
18. Inv. no. 9 : bar celt-ingot.
19. Inv. nos. 50, 73, 101 : axe-ingot III; no. 10 bar celt-ingot.
20. Inv. nos. 57, 81 : axe-ingot I; no. 51 : axe-ingot Ia; no. 48, 49, 95, 110, 125 : axe-ingot III.
21. C. von Fuerer-Haimendorf, *The Chenchus* (London 1943) 30; N. Datta-Majumdar : The *Santal* : *A Study in Cultural Change* (Calcutta 1956) 35; H. Niggemeyer, *Kuttia Kond* : *Dschungel-Bauern in Orissa* (Haar 1956) 121-122, B. Subbarao, *The Personality of India* (Baroda 1958) pl. 11.
22. F. Sach, *Tools and Tillage* 1, 1968, 3—27; S. E. Rees, *Tools and Tillage* 3, 1979, 249-254; G. Forni, *Tools and Tillage* 4, 1980, 60-63 for ard points.
23. Yule, *Metalwork.*
24. *Ibid.* G. Weisgerber, *Allgemeine und vergleichende Archaeologie. Beitraege* 2, 1980, 76-77 fig. 7.
25. On the Asur *cf.* K. K. Leuva, *The Asur*, New Delhi 1963. "The Netarhat plateau forms the north-west corner of Chotanagpur. The eastern end of the southern range of the hills of Palamau district in Chota Nagpur increases in height and turns towards the south where it culminates in the Netarhat plateau.", *o. c.*, 1.
On the Asur *cf.* also John Hoffmann and Arthur van Emelen, *Encyclopaedia Mundarica*, (henceforth *Enc. Mund.*), 13 vols., 1 vol. of pl., Patna 1930-1950, s. v. *Asur.*

26. H. H. Risley, *The Tribes and Castes of Bengal*, repr. Calcutta 1981 (1 Calcutta 1891), s. v. *Agaria* : "a sub-tribe of Asuras in Chota Nagpur; a class of beggars wandering about with tame monkeys whose antics they exhibit."—S.C. Roy mentions the following ethnographical details : The present-day Asurs of Chota Nagpur are divided into three sectiones : namely, (I) Soika Asurs (also called Agarias or Agaria Asurs) who live in jungles and hills and smelt iron, (2) the Birjias..., and (3) the Jait Asurs..." "II. The Asurs-Ancient and Modern", *JBOR* 12. 1 (1926) : 148-149.

27, However K. K. Leuva, *o. c.*, 70-73, lists the Asur kinship terms which are purely Indo-Aryan. Already *Enc. Mund., s. v. Asur*, mentioned the decay of Asuri, but did not tell exactly which languages the Asur were in the course of adopting in those days.

28. *Cf.* note 48.—The Asur totemism seems to differ very much from the general Munda one. This fact need not be taken to speak in favour of a close relationship between the Asur and other groups speaking Austroasiatic or Munda languages. Cf. *Enc. Mund., s. v. Asur.*

29. Verrier Elwin, *The Agaria*, London 1942 : 3 and *pass.*

30. *Ibid.*, 1 ff.

31. K. K. Leuva, *o. c.*, 45.

32. *Ibid.* 141 (also elsewhere in the older literature).

33. Walter Ruben, *Eisenschmiede und Damonen in Indien*, Leiden 1939 : 96-102.

34. Sarat Chandra Roy, *The Mundas and Their Country*, Ranchi 1912 : 32.

35. On the Vedic Asura *cf.* P. von Bradke, *Dyaus Asura*, Halle 1885. The testimonies for and important studies on Proto-Aryan *asura*, related to Av. *ahura*, Hitt. *hassu* "king", Lat. *erus* "master", are summed up and discussed by T. Burrow, "The Proto-Indoaryans", *JRAS* 1973 : 121-140, esp. 127 ff. and 128-130.

34. *Cf.* Jan Gonda, *Vedic Literature*, Wiesbaden 1975 : 20 ff.

37. *Cf.* Arthur Anthony Macdonell, *Vedic Mythology*, Strassburg 1897 : 156 ff.

38. *Cf.* J. Gonda, *o. c.*, 20 ff.

39. *Ibid.*, 386 with note 12.

40. *E. g. Rgveda* 417, 3. 7.

41. *Cf.* for example the myth of the Tripura-Asuras where the Asuras are grouped together with other demons (*daitya* and *danava*). *Cf. int. al.* Wendy Doninger O' Flaherty, *Hindu-Myths*, Harmondsworth 1975 : 325 ff. and *ibid.* the reference to the Sanskrit sources.

42. *Ayas* "iron, ore; bronze"; Wilhelm Rau, *Metalle und Metallgerate im vedischen Indien* (Akad. d. Wiss. d. Lit., Mainz, Abh. d. geist.—u. soz. wiss. Kl., Jg 1973, Nr. 8), Wiesbaden 1974 : 19 ff. who gives Vedic evidence for ayas="copper" and "iron".

43. Dilip K. Chakrabarti, "Distribution of Iron Ores and the Archeaelogical Evidence of Early Iron in India", *Journal of the Econ. and Soc. Hist. of the Orient*, XX. II (1977) : 175.
44. *Cf.* D. K. Chakrabarti, *art. cit.*, 177.
45. *Cf.* D. K. Chakrabarti, *art. cit.*, 178-179.
46. *Cf.* D. K. Chakrabarti, *art. cit.*, 183.
47. *Cf.* J. Gonda, *o. c.*, 24.
48. The hypothesis he expressed last was,

    I ventured to offer a suggestion that the Asurs of Chota Nagpur tradition were probably a Caucasian race who had moved on into India at a more primitive stage of Caucasian culture than that represented by the Vedic Aryans, and on their arrival in India gradually absorbed an indigenous melanoderm race—the Nisadas of ancient Sanskrit literature and worked out the Asur civilization referred to in the Rgveda, Satapatha Brahmana and other early Sanskrit works; and that, being finally worsted by the invading Aryans, such sections of the Asurs as did not submit to Aryan supremacy retreated to the eastern, central, and southern parts of India, and I further suggested that there is a considerable strain of Asur blood among the Bengalis. Further consideration of the subject now inclines me to think that Dravidian culture is indeed based on this or an allied ancient culture, and there is a considerable strain of Asur or Naga-Asura blood in Southern India as in Bengal. A visit to the ancient ruins of Harappa and Mahen-jo-Daro has given me a wider view of what I suppose to have been the ancient Asur or Asur-Nag civilization. I was impressed with some remarkable resemblances between the Chota Nagpur Asur sites and the finds they yield (now in the Patna Museum) and those ruins of the Indus Valley which I would provisionally refer to the Nag branch of the Asurs, and the finds that are being unearthed thereform. But the important differences between the Sind Valley finds on the one hand and the Chota Nagpur finds and South Indian prehistoric finds on the other incline me to think that the ancient Asurs of India had more than one main division, and these had developed important differences in their respective cultures in their respective environments and in the course of their respective social and economic history. It is, however, premature to come to any definite conclusion. (*JBORS* 12.1 (1926 : 151).

    Earlier he had assigned them to the "Kolarian" stock of races to which the Munda and other groups speaking Austroasiatic languages belong (*The Mundas and Their Country*, 25).
49. *Enc. Mund., s. v. Asur-kahani.* Recently an English translation was published by A. van Exem, "Haram and Singbonga : The Concept of the Supreme Being According to Munda Mythology", P. Ponette, ed., *The Munda World : Hoffmann Commemoration Volume*, Ranchi 1978 : 18-115, esp. 98-112.

50. I am indebted to J. F. Thiel, Bonn, for anthropological discussions regarding this problem. He pointed out to me the wide distribution of this motif (spirits owner of the ground) and also of the distribution of the motif of iron-smelters being connected with human sacrifice.

51. S. C. Roy, *The Oraons of Chotanagpur*, Ranchi 1915 : 463-476.

52. K. K, Leuva, *o. c.* 138-139.

53. V- Elwin, *o. c.* 101-102.

54. S. C. Roy, *The Mundas and Their Country*, chapter II, pass.

55. *Cf.* Balmukund Virottam, *The Naghanshis and the Cheros*, New Delhi 1972 : 200 (according to which list the first Nagbamsi ruled for 98 (!) years up to 162 A. D.).

56. W. Ruben, *o. c.*, 303.