CHAPTER V A

IVORY INDUSTRY

Like other industries ivory industry was also an important one. The literary works contain various references of ivory objects manufactured during that age. This industry had a ready market at home and abroad. The value of elephants was determined by weight of ivory, supplied by them¹. Sabaras (a caste) was used to extract the tusks of elephants in the forest region². From these tusks, the ivory workers manufactured various types of objects. Candrapida, during his stay at the school house, had to learn ivory carving alongwith the other practical crafts³. In the works of Harsa, ivory gates and towers have been referred to⁴. Ivory was also used for making ornaments. Bana has mentioned ivory ear-ornaments known as Danta Patra. All categories of people from princesses, to Chandāla maidens liked and wore ivory ornaments⁵. This shows that there was a high demand for ivory ornaments among all sections of society. Beside ornaments, other articles of various types including legs of cots and bedsteads were also made of ivory⁶. The balconies

¹. Brahatsāmhitā, XXVI, 8.
². KB, P-40.
³. Ibid., P-140.
⁴. Ratnāvali, III; Priyadarshikā, IV, 9.
⁵. KB, P-13; P121; P-13.
of the palace of King Meghavāhana, made of ivory have been described in Tilaka-Mañjarī. The Muslim travellers speak of the presence of ivory dealers in Multan. From various parts of Northern India, some specimens of ivories of this period have come to light. The variety of uses to which ivory was put during that age would be clear from the description of objects made from it as given below:

ARCHED GATEWAY:

Ivory was used for making gateway of religious places. For example, Visvākarmā had built the residence of Śiva which had an arched gateway of ivory with lodges (dantatoranairvykhā).

BALCONIES:

Somesvara and Bhoja speak of balconies made of ivory (dantavaadabhi). The Balconies of the palace of king Maghavāhana were also made of ivory.

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1. IM, P-70.
2. HIED, I, PP-28, 35.
5. SMK, P-46.
6. IM, P-70.
TOWERS:

Some instances of towers made of ivory have come to light. The description of these has been given in the book Priyadarshikā of Harṣa¹.

ROOFS:

Some times the roofs of the religious places were also made of ivory. Reference of such a roof of a shrine of Kāma is found in contemporary works².

STUPAS:

Miniature ivory stupas discovered in the excavations at Nālandā show that ivory was also used for making stupas. Further evidence of this fact is noticeable in an interesting & finely executed piece of ivory found from Bengal. It was an architectural form, a three tiered stupa with a modified cruciform cross-section. This piece, complete with columns, canopies, thrones and niches was adorned with 56 figures, 16 of them in animal form and the rest being the image of the Buddhist deities. Prof. S.K. Saraswati regards it as a part of a carved post³.

¹ Priyadarshikā, IV, 9.
² KB, P-238; Kād.Ridding, op. cit., P-144.
³ Lee, Sherman E, JISOA, XVII (1949), PP 1-5; PL-I-II.
CAGES:

Yet another type of object sometimes made of ivory was cage used for keeping birds. Sriharsa refers to ivory cages (nāga-dantikā) which were used for housing sparrows. For these the word danta Panjara has been used by Rajasēkhera. Naiḍadh refers to the ivory perch in a cage meant for keeping birds.

BOXES:

Boxes constituted important household item, often, made of ivory. At Brāhmaṇabād in Sindh some pieces of ivory have been found. A close examination of this ivory shows that it formed part of boxes. The subjects treated on the pieces include female figures holding mirrors, a lotus (Plate XXII, 1 & 2), elephant, lion, makaras, flying gāña and scrolled foliage.

IVORY HANDLED FANS:

Ivory was also used to make handles of fans use. Dandin has maintained existence of fans having ivory handle.

1. NC, XVIII, 15.
3. NC, XVIII, 15.
4. Oriental Arts, I, (1955), PP-47-50, Fig. 2, 3.
5. Ryder, D.C., P-117.
6. DKD, P-78.
DICE MADE OF IVORY:

Excavations at Kumrahar have yielded about four ivory dices. Other finds also proved the existence of ivory dice in the period under survey.

LAMP STANDS:

Lamp stands made of ivory are among the findings yielded by excavations at various sites such as Kumrahar, Nālandā and Basarh. It shows that sometimes ivory was used for making items like lamp stands.

PUPPETS:

A puppet was a small figure of a human being. References to ivory puppets have been found in the Kāmasūtra and the Mālatīmādhava. Besides puppets, dolls were also made of ivory and used for the entertainment of younger girls. Idol of ivory were set up for worship in religious places and homes by the people of that period.

2. ASIAR, 1923-24, P1.79.
HILTS OF SWORDS:

Generally, the hilts of swords were made of ivory\(^1\). A reference to this has been found in the works of that period.

HANDLES OF KNIVES:

Like hilts of swords, the handles of knives were also made of ivory. Yuktikalpatru has described the same.

CHESSMEN:

Ivory made chessmen were used by the people of that period to play the game of chess\(^2\). The ivory chessmen found at Brāhmaṇbād, Sindh pertain to 8th century A.D. which is a clear proof of the use of ivory for making objects of game.

FOOTWEAR:

Sandals—Footwears were also made of ivory. It is proved by the archaeological excavations. An ivory footwear has been found during the excavations at Nālandā\(^3\). It is of 9th-10th century A.D. and is now kept in the local Archaeological Museum. Sandals made of ivory were used by some people of that period.

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1. Krishnamurty, K., Mirrors of Indian Culture, P-51.
STAFF:

Some palanquin bearers used ivory to make the staff to support palanquin. The Edilpur plate of Kesavasena refers to palanquins supported by staff made of elephant tusks¹.

IVORY SCALE:

An ivory scale having twelve divisions marked by circles was an important find at Hulas Distt. Saharanpur in Uttar Pradesh².

FEET OF COUCH & COUCHES:

Instances exist to show that feet of sleeping couch had also been made of ivory. Dandin has mentioned a princess sleeping on a couch, the ivory feet to which were shaped to the likeness of recumbent lions and set with splendid precious gems³. The elephant’s tusk was highly commanded for use in the construction of couches⁴.

LEGS OF COTS:

Legs of thrones and the legs of cots and bedsteads were also made of ivory⁵. Dr. Stella Kramrisch has published a

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1. Inscriptions of Bengal, P-127.
2. IA, 1981-82, P-72.
leg of throne depicting an elephant faced animal with the body of a lion\textsuperscript{1}.

**POLES OF KING'S SEAT:**

The King's seat called sukhāsana covered with lion's skin and studded with gold has been referred too in Mānasollāsa. The ivory poles were fixed under it to enable the four bearers to carry it aloft.

**ORNAMENTS:**

**Bracelets:**

Ivory bracelets looking like the orb of a moon were used by the people of that period\textsuperscript{2}.

**Anklets:**

Like bracelets anklets were made of ivory. Anklets of well-polished ivory have been described in the works of early medieval period.

**Rings:**

Ivory earrings had been made of hippopotamus. The soldiers used to wear the earrings. These dangled near their cheeks\textsuperscript{3}.

\textsuperscript{1} Mānasollāsa, VV, 1970-71.
\textsuperscript{2} NC, XI, 108.
\textsuperscript{3} Mānasollāsa, V, 956; HCCT, PP-213-215.
Combs:

Ivory combs were the products of that age. Yuktikalpatru has referred to the ivory Combs. The ministers of kings used these ivory combs. These were of a sharp edge.

Ear Ornaments:

The girls used to wear ear ornaments of ivory. Bana has referred to ivory ear-ornaments known as Dantapatra.

Bangles:

Bangles, made of ivory, were used by the women of early medieval period. The excavations have yielded fragments of ivory bangles which relate to the period from 8th century A.D. to 12th century A.D.¹

TECHNIQUES:

Ivory was used for making household objects, ornaments, figurines, gamesmen and numerous other miscellaneous articles as is evident from contemporary works and archaeological excavations. A close examination of these objects such as ivory bracelets, anklets of well polished ivory, sandals, figures, gates, towers, lamp stands and feet of the couch makes it clear that it was also a developed craft like other crafts of that age. The ivory workers were fully

¹ IA, 1950-59, P-28.
acquainted with the techniques of chiseling, carving, incising, filling, in-laying, finishing and polishing. They produced a variety of articles from simple staff, to complicated ornaments such as bracelets (resembling the orb moon) and well polished ivory made anklets etc¹. It reveals their skill & proficiency in this craft².

CARVING:

The example of the technique of carving can be seen from an architectural form—a three tiered stupa with a modified cruciform cross-section.

EXECUTION:

The finely executed piece of ivory stupa found from Ben-gal complete with columns, canopies, thrones and niches and adorned with 56 figures, 16 of them in animal form and the rest being the images of the Buddhist deities ³ presents example of how highly developed was the ivory craft during that age⁴. Skillfulness in engraving, modelling and execution one witnessed in the objects, manufactured by the talented ivory-workers. The objects created by them show their high artistic skill their aesthetic sense, sophistication of

¹. NC, XI, 108.
². Mānasollāsa, V, 956.
³. Lee Sherman E, JISOA, XVI (1949) PP-1-5. Pls.III.
⁴. Saraswati, S.K., op. cit. Pl.XXi Fig.142.
tastes, maturity and sensitively of feelings. Some of this development had been reached in the period under study. The variety of objects including beautiful animal and human figurines and numerous other artifacts, created by the workers on Ivory prove the highly advanced stage of this industry which is only possible through highly qualified artists. This craft was patronized mainly by the royal families although objects of ivory liked by all sections of society alike. The high demand of ivory ornaments among all sections of society prove its importance in the period. This craft could flourish only through highly skilled workers, who were well adapt in the various techniques, applied in making ivory objects1.

Main Centres Of Ivory Industry

ORISSA :

Ivory was an important item of trade in Orissa during 10th century A.D. From this great centre ivory was exported to the Arab countries in substantial quantity2.

BENGAL :

From Bengal was discovered an architectural form which is the best specimen of the high skill in carving on ivory and which is now displayed in the Seattle art Museum, Seattle¹.

MULTĀN :

Muslim travellers have referred to the presence of ivory dealers in Multān². There was a row of shops dealing in ivory objects near the Sun temple.

SIND :

Specimens of ivory product have come to light from various parts of Northern India. A group of these was found at Brāhmaṇagād in Sind. This group formed part of a box or boxes.

These references prove that ivory workers were busy in these places in making different types of objects. Bāṇa has described that Cukanasa had gained the highest skill in the working of ivory³. This shows that the people of that age took keen interest in this industry. Ivory work was carried on for making various types of artifacts. Ivory was obtained from the elephants and the value of elephants was determined

1. Lee Sherman E. op. cit.
2. HIED, I, PP-28-35.
by the weight of ivory supplied by them\(^1\). So in the forest region, Sabaras could be seen extracting the tusks of elephants\(^2\). These were offered to the ivory workers who made numerous articles from them. A copper plate inscription from Orissa referring to the gift of a land situated in a forest, records that the privileges of the Brāhmana donee included his right to enjoy (hasti danta) in addition to other articles\(^3\). The Bhatera plate of Govinda Kesava described one ivory worker named Rājaviga\(^4\).

All these literary as well as archaeological evidences show that the workers of ivory had their own place in society. Not only the common people but royal personalities also had interest in this work.

The high demand among all the sections of society for ivory ornaments indicated its popularity. The beautiful pieces of ivory made by skilled artisans, prove its highly advanced stage. The position of the workers was equally important in the period under study. The ivory items, being export items, also reveal the skill of the workers, their aesthetic sense, maturity and sophistication of tastes. The

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1. *Brahatsamhita*, XXVI, 8.
beauty, refinement and variety of these objects could become possible through their high skill in the technique of making these articles.
CHAPTER V-B

GLASS INDUSTRY

The description of various vessels of glass given in con­temporary literature shows that the people of early medieval period had a knowledge of glass industry. Several literary works such as the Dohākosā,¹ the Mānasollāsa,² the Prabhād-hachintamani³, the Rasaratnakara of Nityanātha Siddha,⁴ Rasaprakasasudhakara of Yasodhara⁵ and the Rasaratnakarasamuchchaya⁶ etc. contain an account of various articles made from glass. Not only the literature but archaeological evidences and sculptures also prove the exis­tence of glass industry. The figure sculptures on the tem­ples of Khajurāho and Bhuvanesāvara show mirrors, which were used in toilet. The songs of Sarahapada refer to the preparation of glasses, glass-vessels and imitations of jew­ellery, but the mirrors were the metallic looking glasses.⁷ Yuktikalatru mentions that mirrors were manufactured with

1. Dohākosā, P. 229 (Kācha), P.341,117 (Kāchkatra).
3. PCM V.224 (Kachakupi).
7. Dohākosā, P.337 V.106.
eight different metals¹. Mercury² was also applied but its use had been done on one side as suggested by Sarahapads's songs³. It further describes that the rdhidarpaṇa was bright and clear on both the sides⁴. The use of mercury on one side of the looking glasses shows clearly that glass mirrors were also in vogue.

The merchant Padmarāja regularly sent to King Bhoja of Malwa, the water of Pāpasūdana tirtha filled in large number of jars⁵. Huge quantity of ancient glass fragments have been found strewn on the road that leads to the Pāpasūdana-Kapatesvara spring from the village of Kother⁶. The existence of a glass industry is proved by the testimony of the Sukranitīśāra and the Yaktikalpatru.

**SHAPES AND TYPES :**

Glass industry was recognised as of great value to the people as a large number of objects were made of glass. The

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2. Ibid.
3. Dohākosā, P.335 V.102.
4. Ibid.
5. RT, VII, 190-193.
flourishing nature of this industry is evident from the objects described below which were made of glass during the period under study.

**Ornaments:**

Ornaments of glass were made and used by the poor section of the society. Boxes of ornaments were filled with composition of skilfully coloured pieces of glass and these looked like real ones. It points to the fact that the glass workers were highly talented and experts in making such artistic ornaments.

**Beads:**

Glass beads were used on a large scale for making jewels of different types. Glass beads of early 8th century A.D. have been found in Mandsore excavation.

**Bangles:**

Bangles were made of glass. Fragments of glass bangles have been found from the excavations of various sites such as Bhopal, Gwalior, Pāhārpur, Bateswar etc. The period of

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1. KSS P.202.
7th-8th century was noted for the abundance of glass bangles. From Allahabad excavations, glass bangles have been discovered which belong to early medieval period. Two pieces of stratified glass bangles have been found from Bihar. From Madhya Pradesh excavations glass bangles have been found. These were the product of that age.

**Necklace:**

Necklaces were made of glass beads. These were used by the ministers of kings.

**Mirrors:**

Mirrors was an important item of toilet and it was usually made of glass. A kind of mirror called Raddhi-darpana was bright and clear on both the sides. Reference of glass-mirrors have been given in the literary works such as in PaiyalaacchInamamala. Sometimes more than one mirror were used. Many toilet scenes show women standing, holding a mirror in hand and dressing their hair, applying sindura or

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1. IA, 1960-61, P-18; IA 1975-76, P-43.
3. Kane, P.V. *op. cit.* P.27.
4. Dr. Motichandra *op. cit.* P.105.
7. *NC* XV 50, 52; XV, 70.
collyrium in the parting of the hair or eyes respectively or even admiring their own beauty, in the temples of Kandariya Mahādeva, Vamana, Viśvanatha, Bharate Chitragupta etc. There is mention in literature of a worshipper who gave the looking glasses to a Brāhmaṇa as Dakshaṇā. There is description of characteristics of various types of mirrors. These were:-

i) Bhavya:

It was one vitasti in length.

ii) Vijaya:

It was four angulas long and broad.

iii) Pourusa:

It was life sized, on which fell the full length of a person.

The Ākhyāṇakamaṇikosā refers to the hall of mirrors for the kings which were specially designed to give reflection from all the sides.

2. Hazra, R.C. op. cit, P.256.
3. Yuktikalpatru, P-80 (vv 5,10).
4. AMK, 347, 8-11.
Jars:

Glass Jars were used in the households for keeping water. A merchant named Padmarāja daily sent the water of Pāpsūdana tirth filled in a large number of glass jars.¹

Cups:

Cups were also made of glass and used in the society of that age². Bhoja has mentioned cups of glass in his works.

Combs:

Glass was also used for making combs³. It was a toilet item for women and Bhoja has referred to its uses in that age.

Vessels of glass:

Liquids and wine were served in glass vessels. The use of Kacha or glass was in vogue from the age of Susrut in India. The use of various types of glass vessels has been referred to in the works on alchemy⁴. The songs of Sarahapada describe the preparation of glasses and glass vessels⁵.

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1. RT, VII, 190-93.
2. Dr. Mahash Singh op. cit. P.227.
3. Ibid, P.252.
5. Dohākosā P.337 V.106.
Bottles:

Bottles were also made of glass and used for keeping liquids, medicine etc. Rasarnava refers to Kacha Kupi' which was a glass bottle (Valukayantram).

Flask:

Flask was a vessel of long neck. It was an apparatus of glass called valukayantram¹. It has been described as under-"A glassflask with a long neck containing mercurials is wrapped with several folds of cloth smeared with clay and then dried in the sun."

Walls:

Walls of houses, palaces etc. were made of glass, Walls of crystal mirror like slabs have been mentioned in the works of that age².

Floor:

Floor of Kings residence was made of glass³. Mānasollāsa throws light on the glass industry. It has proposed that floor of King’s residence should be made of glass.

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1. Rasaratnasamuchchaya IX, 34-36.
2. Bhārtiya Vidya V P.488.
Shining glass pieces:
The wives of poor villagers used to bedeck themselves with ornaments set with the help of shining glass-pieces. Possibly they could not afford to buy big & full mirrors.

PROCESS OF MAKING GLASS OBJECTS:
The glass industry was an important industry. The literature has no clear formulations about the procedure of making glass objects. But the objects found from various excavations and their description in literary works reveal that the glass workers were fully aware of the knowledge of making different types of articles. In Kathāsaritsāgar boxes of ornaments, filled with the composition of skillfully coloured pieces of glass, looking like real ones, have been referred to. The talented workers could be able to manufacture such things. The references of glass bottles and valu-kayantram (an apparatus of glass) a long flask with a long neck were such objects which can be possible through the developed techniques. The process of making such objects is also not a simple one. It requires scientific knowledge of smelting and shaping the glass material. The amazingly high variety of glass objects proves that this industry had reached a highly advanced stage.
Almost every pierced object which could be strung is called bead. Beads of various shapes, designs, sizes and materials were manufactured from earliest times. Discovery of these beads from all the Harappan sites prove their existence. These were being made and used by the people of all the ages with the impression of the concerned age. The material used for making beads of different types consisted of clay, ivory, glass, various stones including rubies, sapphires\(^1\), diamonds\(^2\), moonstones\(^3\), emeralds\(^4\), jades\(^5\), crystals\(^6\), pearls, gems\(^7\), lapislazuli etc.

The bead-makers of that age had knowledge of making numerous types of beads, such as concentric, fairly large sized\(^8\), barrel shaped, cyclindrical, rectangular, tubular, oval, convex, disc shaped, conical, round, biconical, hexagonal cross shaped, short vase shaped, trapezoidal etc. Though no specific technique of making beads has been given

1. HCCT, P-48.
2. Ibid., P-117.
3. Ibid., P-140.
4. KB, P-19.
5. Watters, I, P-178.
6. Ibid., P-178.
7. Brhatsamhita, LXXX-LXXXII.
8. GV, P-203.
in the literature yet the varieties of beads found in the excavations clearly reveal that bead-makers had high quality skill in making these. Beads of various colours have been found in excavations. Ornaments made by beads have been referred to in the contemporary works¹ as well as obtained in the excavations².

SHAPES AND TYPES:

Various types of ornaments in different designs were manufactured from beads. Along with ornaments other articles were also made of these beads.

ORNAMENTS:

Beautiful ornaments were manufactured by setting diamonds, lapis lazuli, pearls, emeralds, rubies, sapphires etc. Precious and semiprecious stones were used on large scale for making jewelled ornaments. Raw and uncut stones were cut in desired shape to set in gold and silver ornaments. These were also properly polished. Earthen beads were used for making ornaments for the poorer sections of the society.

1. KB, PP-242, 263; GV 1194; Kāvyamimāmsā, P-53; NC, XV, 44; ARM II 554; HCCT, PP-31-32; Mānasollāsa vv 1089, 1090, 1091, 1092, 1093, 1095, 1104, 1105, 1106, 1107, 1110, 1113, etc.
CREST JEWELS:

Crest jewels were made of beads of glow. Mālatī (heroine in a work of Bāna) is described to be putting in her hair on the front, a crest jewel in crocodile shape. Bāna also referred to the rays issuing forth from the crest jewel of Kādambarī turning her forehead red.

NECKLACES:

Necklaces were made of glass beads and the nobles of that period used to wear these. Necklaces having several strings of beads were also in vogue. Round the neck of Mālatī, a string (hāra) of round pearls as big as amalakiflower has been referred to. It consisted of nine big pearls, attached in a string to the neck.

EKĀVALI:

It was a simple necklace composed of pearls with a large central nāyakmaṇi. It was very popular in Rājasthān.

A sculpture of Vishṇu and Chaura bearer wearing necklace of two strings have been shown in Jaipur, Amber Museums. These were of 9th century A.D. Three string necklaces were

1. HCCT, I, PP-31-32.
2. KR 1194; Kāvyamimāsā, P-53.
3. KB, P-263.
4. Rajasthan museum, Jaipur No.200; Amber Museum.
also used by the ladies of that period. Sculptural pieces of the Gaṅgā and another lady in Mathura Museum are shown wearing necklaces of three strings. These were of 8th century A.D. Necklaces having five or seven strings were also used. The seven stringed necklace sometimes resembled a seven stringed lyre. We also come across necklaces comprising of 32 to 70 strings. The bust of Vajrataṅgā from Sārnāth pertaining to the period of Gahadavāla dynasty (12th century A.D.) wears an elaborate torque with a large with a large jewel in the middle and a necklace of beads consisting of three strings (Plate xx). The image of Viṣṇu is bedecked with multistringed necklaces of diamonds and pearls.

Necklaces studded with green and red jewels were also made. Pearl-necklaces were worn by the ladies of royal blood. Gold necklaces set with pearls and precious stones were made for kings.

1. NC, XV, 44, III, 127, VII 76.
2. Patna Museum No. 9786; NM, 81-100.
3. ARM, II, 554.
4. IB, III, P-68 fn.
5. Manasollāsa, vv, 1049-1129.
BORDERS OF BEADS:

Images were decorated by border of beads*. The standing image of Buddha from Nalanda of 10th century A.D. had its rectangular back slab decorated by the border of beads. The round halo is also decorated by the border of beads.

BRACELETS:

Beaded bracelets were also made during the period under survey². It had a central piece in the shape of a flower or diamond. Gold bracelets (Batakakataka) with an emerald crocodile shaped signet were also made for wearing on forearms³. Mālatī had worn such ornaments.

KUNDALAS:

Kundalas of elaborate beaded design with makara heads were also made at that time⁴.

BEADED EARRINGS:

Earrings were beautified with pendants of pearly beads. The gold ear-rings were set with jewels and sometime a crooked line was carved on them⁵. Muktatadaka - a kind of

3. HCCT. PP 31-32.
5. NC, XV, 41-42; VII, 62.
ear-ring was made of pearls¹.

KEYŪRAS :

Keyūras were very popular among men. The images of the period under survey show that big armlets studded with one or more precious stones, were in vogue during that period.

RINGS :

Rings were liked by both the sexes. Someśvara’s Mānasollāsa describes rings of many kinds which were studded with rubies, pearls, diamonds, pravāla, mārakats, puṣparāga, vajraṇīla, gomeda and other precious stones. A ring inset with gems to appease the nine planets was known as nava-graha. The shapes of rings varied according to the designs. A ring with a big diamond between two smaller ones was called trihiraka, while another ‘Saktimudrikā’ was like a snake’s hood².

ANGADA :

It was a circular ornament, made of thin red of gold, set with jewels and small string with pearls and blue manikas attached to it³. It was put on the upper arms.

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2. Ibid., vv 1080-1090.
3. Ibid. vv 1110-13.
BANGLES:
Beaded bangles were used by the people to bejewel the goddesses during early medi-eval period\(^1\). The ladies of that age were also fond of wearing beaded bangles.

DHIRAJIKA:
Dvirajika was an ornament which consisted of two rings studded with pearls and joined in the centre with a nīla\(^2\).

VAJRAGARBHA:
It was an ornament which consisted of diamonds in the centre with pearls around\(^3\). One type of set with diamonds studded in this way with a maṇikya in the centre was known as ‘Mandana’\(^4\).

Dandaka:
Dandaka was a circular ornament consisting of pearls and attached to kundala\(^5\). When its upper part had the shape of Ketaki leaf of gold it was called ‘Chuḍāmaṇ’ but when it had

\(^1\) Chattopadhayay, D.P., op. cit. P-170.
\(^2\) Manasollása v.1092.
\(^3\) Ibid, v.1094.
\(^4\) Ibid, v.1095.
\(^5\) Ibid, vv 1102-03.
a leaf in the form of lotus it was called ‘Chudika’.

**CHUDĪBHŪṢĀNA :**

It was an ear-ornament and made of gold flowers of rubies, nilam and pearls strung together.

**MUKUṬA :**

Mukuta was another ear-ornament meant for women. It was made of pearls, nilaka, manikya and diamonds. Sometimes a small string of nila made of nine or ten big pearls was attached to it.

**GLASS BEADS :**

Beads of glass have been found in Mandsore and Nagar (Jullundhar Distt.) excavations. These beads prove that various types of objects were made of glass beads during that period.

**PEARLSHAPED TERRACOTTA BEADS:**

Pearlshaped terracotta beads were also in vogue during that period. The people used these beads for a variety of

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purposes. For example, in Kong-Tutu Ganjam beads were used as a media of exchange. The contemporary works have numerous references of this effect.

**EAR-PENDANT:**

Ear-pendant studded with emeralds were also made for royal families. Rājayaśrī had on the occasion of marriage worn such ornament which made her cheeks green with their reflection.

**STRING OF PEARLS:**

Men and women had great fascination for pearls and pearl strings became a common fashion. Mahāśvetā's neck was encircled with a necklace of white pearls as large as Amalaki fruit. Dandin has described Kandukavati, wearing more than one neck ornament with the central piece being a string of pearls. Even the neck of a Chandāla maiden was encircled by a string of pearls.

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1. BRWW, II, P-207.
2. HCCT, P-129.
3. KB, P-179.
4. Ibid, P-12.
RUBIES-NECKLACE:

Necklaces were made of rubies also. Dandin has mentioned a princess whose charming neck was encircled with a necklace of rubies strung on a string of polished gold."

GEM FIXED NECKLACES:

Necklaces were made with gems, fixed in the knots. In Harṣacarita, the reference of beautiful gems fixed in the knots of queen Yasovati's necklace has been given."

GIRDLE STRINGS:

Women of that age wore girdle strings which were usually fastened with small bells, making melodious jingling sound. Bhairvi compared the jingling sound of Draupadi's girdle with the sound made by swans."

GIRDLE OF GOLD-BEADS:

Girdles were also manufactured from gold beads, Bhartrihari has referred to the gold beads of the girdle which produced a twinkling sound."

1. Ryder, D.C., P-201.
2. HCCT P.104.
4. Kīrātārjunīya, IV, I.
5. KR P.89.
ANKLETS:

Anklets were very popular among the females of all sections. These were also studded with jewels. Wealthy ladies of Sthanīśvara used to wear anklets of sapphire\(^1\).

Thus, beads made of various types of material were used for making ornaments and other articles. The literary works have references of beaded objects and the archaeological excavations have provided large quantity of beads. These prove the existence of a fairly developed bead-making industry in the early medieval period.

TECHNIQUES:

MATERIAL USED:

Beads were used for preparing various types of articles. Particularly, ornaments of different kinds were manufactured from the beads. The material, used for making these beads was of different types. Precious stones such as diamonds\(^2\), rubies\(^3\), pearls\(^4\), sapphires\(^5\), moonstones\(^6\), emeralds\(^7\),

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1. HCCT P.83.
2. HCCT, P-117.
3. Ryder, D.C., P-201; Mānasollāsa v.1107.
4. Brahatsamhitā, LXXX-LXXXIII.
5. HCCT, P-48.
6. Ibid. P-140.
7. KB, P-19.
jade\textsuperscript{1}, crystals\textsuperscript{2} etc. were used for making beads. Carne­lian, jasper, quartz and glass were also used for this pur­pose.

For the ornaments worn by common people, beads were made of clay. Such beads were in great demand. From Ahicchhatrā region, earthen beads were discovered showing their continuing use in the later period\textsuperscript{3}. Clay beads having big perfor­ations have been collected from pāhārpur region also\textsuperscript{4}. These beads were used by the poorer sections of society for ornaments\textsuperscript{5}.

Terracotta beads were also in use during this period\textsuperscript{6}. Excavations at Gilaulikhera (Distt. Morena) in Northern India have recovered terracotta beads of post Gupta period.

Shell, faience and glass were used for making beads. The excavations at Batesvara Distt. Agra have discovered beads of faience, shell and glass\textsuperscript{7}. Beads of Semi precious stones

\begin{enumerate}
    \item Watters, I, P-178.
    \item Ibid, HCCT, P-230.
    \item AI, VIII, 1952, P-33.
    \item MASI, 55, P-89.
    \item Maity, S.K., op. cit., P-111.
    \item IA 1981-81, P-34.
    \item IA, 1975-76, P-43.
\end{enumerate}
have been found from the excavation at Taradih, Distt.. Gaya (Bihar)¹. Beads of semi precious stones and glass were also discovered from the excavations at Nagar Distt. Jullundhar².

Varāhmihiira has mentioned various sources of pearls, the best pearls could be got from pearl oysters³. Pearl fishery zones, he described, were: Siṃhalaka, Paraloka, Sauṛāśṭrā, Tāmraprārṇī, Parasava or Persiā, the North country Pandya, Vataka and the Himalayas⁴. Use of pearls and other precious material for making beads was however not so widespread and common as of clay and terracotta during the period under study.

COLOURS:

Beads of numerous colours have been referred to in the literary works of that period. From excavations too beads of different colours came into light. This indicates that preferences of people of that age were not restricted to anyone colour in selection of beads but quite a few colours were popular with them. It is evidenced from the excavations carried at Basarh, Pātaliputra and Nalanda. Basarh collection

3. Brahatsaṁhitā, LXXXI, I.
4. Ibid, LXXXI, 2.
is specially richer\(^1\). The range of colours of these beads is pretty wide. They are of white, black, red, green, grey, pinkish-white and of different mixed colours.

Gems were of various geometrical shapes and had dazzling glow. These were pure, smooth, heavy, glowing and transparent.

The best type of diamond was big, heavy, regular, hard, refractive of light and brilliant.

**STATUS AND ROLE OF THE BEAD-MAKERS:**

Bead-makers had their own place in the society as they ran an important industry. A locality of beadmaking factory has been found in the excavations at Mandsore\(^2\). Here, a large number of unfinished beads of different stones have been found. It indicates that bead-makers were busy in this place in making beads of different kinds. The poor, beadsman remained busy in putting carefully and artistically every single bead in a string to make the necklace there of. A large number of beads had been discovered in various excavations and the contemporary literature has also detailed description of beads. Ornaments of numerous designs were set with beads of various qualities.

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1. ASIAR 1903-04, PP 155-85.
Like metal industry, stone industry had also shown remarkable progress particularly in making stone sculpture during the period under survey. The stone-workers and stone-carvers had made a large number of stone objects which clearly reflect their superior creative talent and high degree of technical skill & ability.

Stone was used for numerous purposes such as making buildings, monuments, images etc. An inscription has references of excavating, breaking and setting of stones for road construction. The famous architects Chandasīva and three sons of Grahabhaṭṭ had attained expertness in the work of stone craft. They constructed a large number of stone temples. Stone was also used for making mortar, pestle and other household articles. Archaeological excavations have discovered a large number of stone images and other objects from various sites. Some noteworthy collections are: the figure of a lady on a jamb from Bhagalpur, a female figure from central

1. EI, XXIV, No. 4, P-331; Ibid No.8 V3; Tabquāṭi- Nāsirī, -82; IA, XLVII, P-111; HIED, IV, P-567.
2. CII, IV, P-201, V.13, EI, II, P-123 Bhārata-Kaumudi, I P-276.
3. HCCT, P-139.
India, a head of a girl from Uskhur in Kashmir, a torso of a Boddhisattva and Paharpur sculpture. Stone was also used as writing material due to its durable nature and that is why many land transactions were engraved on it. A large number of stone inscriptions have been recovered from different parts of India. The state of stone industry during that period is known through not only archaeology and inscriptions but contemporary literature also which has numerous references in this regard. For example, Akhyānakamānikosā has recorded that figures were carved out of stone. Tabaqāt-i-Nāsirī makes mention of magnificent buildings including palaces and temples in the city of Mathura. Kanauj was described as a city of great size with whole of its walls of hewn stones. The ramparts of the city of Karambatan were also built of stones. Lofty, strong and beautiful walls had been found near the bridge of Kāmrūpa. Prabandhacintāmaṇī speaks of stones quarry at Mamani from

1. Ibid fig.98.
2. Basham, A.L. PL.XXXIX.
3. Ibid PL. XXXVIII.
4. MASI, 55.
5. AMK, 76, 176.
6. Tabaqāt-i-Nāsirī, P-82.
7. HIED, iv, PP-154, 567.
8. Ibid, II, P-311.
9. Ibid. P-312.
where stone was excavated for constructing Jinas' images. pillars of building were also made of stone. The sualkuchi grant of Ratnapāla refers to the stone carving industry. The Dhārā Parasti of king Arjunavarman refers to the name of an artist (śilpin) Rāmadeva whose father was also an excellent sculptor (rupakāra). From the word 'Śilāsrī' (i.e. one who bestows beauty upon stones) it is clear that the gifted sculptors with their masterly skill could easily transform a dead stone into a living one. The sculptors took delight in fashioning their creations in poetic or visual metaphors in preference to observations. Śilākuttas were a class of stone-cutters and some women also did stone cutting work. The Chandella king Rohila was famous for his building activities. Lofty and imposing stone temples of Bhuvenesvara, purī, Khajurāho, Gwalior, Osia, Mount Ābu, Modhera and other places, point to the highly flourishing state of this industry. The Pāla period of Bangal and Bihar was the glorious period of this industry. The two great

1. PCM, IV, 191.
2. PCM, IV, 187.
4. El, VIII, P-96 fn v.76.
5. Ibid, XXXI, P-85.
7. Dohākośā (Sarahapada).
8. JASR, 1881, P-88.
artists and sculptors named Dhīmāna and his son Vītāpāl had made this period memorable by creating wonderful artifacts. Lama Tārānāth has also proved this fact. Further, the Deopārā inscription of Vijayasena referred to an artist, Somesvara, who was famous for his artistic skill. This artist belonged to Magadha. Another famous stone-sculptor of Magadha was the father of one Subhadāsa. Tanks were also made of stone as described in the inscriptions. The Mangalana stone inscription of Jayatrasimha, refers to two masons named Asala and jahada who constructed a step-well, by using stones. Some not able artifacts of stone were the grants inscribed on stone slabs with a view to make them durable.

Thrones

Thrones of the kings were mostly made of stone. Bāṇa has mentioned that King Harsa used to sit on the throne which

1. ASIAR, 1921-22, P-104, vf, JRORS, XXX, P-159.
2. EL, XIII, P-283.
3. IA, XLVII, P-111.
4. EL, I, P-202 vv 47-48
5. IA, XLI, P-85 fn.
6. EL, XX, P-136, II. 11-15
was made of stone and which was clear like a pearl and bright like the moon with its feet being made of ivory and its surface being as cool as snow water.¹

**Stone Idols**

Stone was also used for making idols which were generally kept in the temples². Mahmud found a stone idol during his attack on Somnath temple. It was in the centre of the Hall. Its total height was five yards. Up to two yards it was sunk in the ground. Some other important stone idols which were found from the excavations are: a stone sarasvati, a remarkable mutilated stone image of Vāmana Avatar of 9th century A.D. and a Vishnu image of 11th century A.D.³

**Stone beads⁴**

Beads of stone were used for various purposes. Archeology has unearthed a variety of objects made of stone beads from various sites in northern India. The finds of a number of unfinished beads along with grinding slab of sand stone, show that this locality had a bead making factory at some stage.⁵ Other objects stone were weights, carved lintels

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1. HCCT, P-56.
4. IA 1971-72, P-51.
plinths, Jambs and spires of different dimensions which were recovered from the excavations at Mandsore, and pertain to 8th century A.D.¹

**Stone as writing material**

From ancient times stone was used to make permanent record. We come across inscriptions carved on stone and stone objects which include:

i) Stone (Plain and coarse).
ii) Pillars.
iii) Pedestals of the images.
iv) Stone slabs.
v) Lids of pots and boxes.
vi) Marble slabs.
vii) Walls of the temples and
viii) Caves.

**Bhaja Caves and their inscriptions**

The small group of caves at Bhaja, about a mile south of the Karle caves, are cut in a low spur of the hill which is crowned by Isapur fort. To the left of the window, is a small square stone seat which is much broken. On each side of the central door and to the left of the side door is a

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Dwārapāla in low relief, wearing turban, necklaces and bracelets. The dwārapālas hold bow and spears in their hands.

Phallus

Mostly, the phallus and idols of all the castes were, made of stone of black colour. But the black lines in the stone for the images of all the castes were avoided. White and gold lines in the stone for Phallus and idols were auspicious and conducive to all propriety. From the excavations at Madhya Pradesh many stone objects pertaining to the period c. 700-900 A.D. have been received. The important finds of the period are:

i) A square red sandstone piece with roasted circle and symbols like Padma, and deer.

ii) Another stone piece with Nandi in Anjali-mudrā in human form, and

iii) A red sand stone image of seated Gaṇesh. Stone niches were made in every room for keeping the lamps and books. This shows that the stone-workers had high degree of skill to make such type of objects in houses.

1. IA 1974-75, P-22.
Stone-slab and stone platforms:

Slabs were also made of stone which were cut to the size of seats and placed in the gardens¹. These were used as seats. Platforms were also made of stone which were used for sleeping purpose in Nalanda University residences. In every room one or two permanent stone platforms were made for sleeping purpose. Some other stone objects collected from different excavation sites & the places of their collection are as under:

1) Stone rubber found at Gilaulikhera in Morena Distt.

2) A grinder, a pestle and quern and some decorated stone plates of c-7th century A.D. collected from West Dinajpur in West Bengal.

3) Marble bangles, caskets in stone unearthed from Batesvara in Agra Distt.

4) Memorial stone received from Vadodara in Distt. Gujrat².

5) In the town of Banaras there was a stone pillar which was bright and shining as a mirror³. Its surface was as glistening and as smooth as ice.

¹. Nāgānanda, II, Ratnāvali. II.
². IA 1975-76, PP-9, 15, 43, 57; IA 1981-82, P-34, 81.
³. Dutt, R.C. -Later Hindu civilization, P-17
The above examples provide a clear and undisputable proof of the fact that the sculptors of that period were highly creative, skilful and proficient in transforming dead stone into different types of objects of great utility, beauty and art.
CHAPTER V-E

COIN INDUSTRY

Coins reflect the economic position and prosperity of the society during any age or period. The coins of valuable metals are a sign of prosperity of the society while the coins of inferior metals show that the economic condition of the people is in general, poor. Besides this, the quality of coins including the metal used, the techniques and method employed and variations, effected in shapes, sizes and engraving etc. also point to the quality of artistic skill and crafts-manship of these minters.

Currency of a country is the index of the commercial and trading enterprises. During early medieval period, coins of various denominations and designations, made of different metals were in circulation. Some of these coins were regarded as standard money and others as token currency which can be seen from various sources. All the characteristics of a modern currency were in vogue during the period under survey, but the same were not developed like the modern currency. People used to hide the coins and jewels in copper pots as told by Sattrasila.¹ A. Cunningham describes gold, silver, copper, and billion coins belonging to a number of the north Indian dynasties. In the currency of North-

¹. **KSS**, III, P-158.
ern India two standards were generally, followed; (1) Coins of 67 grains and (2) the coins of 58 grains. The first was adopted by Gāṅgeyadeva of the Kalachuri dynasty, the Kings of the Chandella, the Gahalavāla and the Tomara, dynasties. The second denomination strikingly agrees with the silver purana of 32 ratis, antiquity of which can be traced back to the beginning of the Indian currency system as represented by the extinct puṇčh-marked coins. The continuity of this denomination, although under different names from the earliest times to the end of the 12th century A.D., is a notable feature of the history of currency in this country. The collected data confirm the view expressed by Thomas.¹ He says that except small intervening time same weight reappears in the money of Syala and Sāmantadeva, the Brāhmaṇical sovereigns of the Punjab and North India in the 9th century A.D. It then runs through the whole issue of their Rājpūt successors, from whom it passed to Qutubuddin and the Muham-madan conquerors in 1191 A.D. when it had become so much of a national institution that the representative coins were known by the proper name of Delliwals.²

2. JNSI, XV, P-229, fn; XVI, P-112 fn.
Standard Money

Standard money of early medieval period was in fact dramma and gold, silver, copper and other metals were utilized for minting the coins of this denomination of comparatively lower denominations. Many literary works and epigraphs mention lotus coin designation prevalent in the northern part of the country for exchange. Inscriptions mention it frequently. The Mahābodhi inscription of Pāla ruler, Dharampāla, is the first epigraph of the period which mentions that 3000 drammas were spent in excavating the tank. During the Paramāras, this coinage was in vogue. This has been proved by the Kalvan Plate of Yasovarmanā, the Arthuna inscription and the Patanārāyaṇa stone inscriptions. The rulers of various dynasties had issued drama coins. For example, Bhoja-Varah and Vinayapāla of the Pratihāra dynasty had issued Śrīmadādивarāhadramma; Vigrahapāla of Pāla dynasty had issued Vināyakapāla dramma; Ajayadeva and Viṣaladeva of the Chāhamaṇa dynasty of Ajmer-Mewar had issued Vigrahapāliya dramma, Ajayadeva dramma, Viṣalapriya dramma and Bhīma had issued Bhīmapriya dramma.

1. JASB, (NS) IV, P-101.
2. IA, XLI, P-209 fn.
3. JNSI, VIII, P-139 fn.
Regarding the Pratihāra coins, the more refined coins were issued by Mihirabhoja. The silver coins, bearing the legend 'Śrī Vīgra (ha)' or 'Śrī-Vī' or simply 'Vī', found at several sites are the standard drammas. The debased coins were issued by Vigrāhapāla II, III or any other ruler of some other dynasty. A special kind of dramma named 'Paruttha-dramma' has been frequently mentioned in the Jains literature. As the Jainas spread mostly in Gujrat, Mewar and Malwa regions which were the provinces of the epigraphs such as Khartarg-achchhapattavali (1010-1336 A.D.) and Purātana-prabandhasāṅgraha containing description of 'Paruttha-Dramma', these coins were imitated from the Parthian coins. The reason was that the Parthians were ruling in these parts.

Another kind of dramma coins was known as 'Pañchīyaka dramma'. From the Siyadoni inscription, along with other varieties of coins, varieties of dramma coins are known, one

1. CCIM, PP-233-34.
2. Sen B.C. - Some aspects of the Inscription of Bengal, P-570.
3. CCIM, P-239, ASIAR, 1927-28, P-105.
4. IHR, XXVI, 224 fn.
5. Ibid, P-224.
of which is the 'Pañchiyaka-dramma'. According to Bhandarkar ‘Pañchiyaka' denotes pañchayata and therefore, this type was coined in the name of the local pañchayatas during early medieval period. But Puṣpa Niyogi did not agree with this view on the plea that no local panchayatas were empowered to issue coinage independently during this period. It seems right as no village community in Northern India has been found functioning as administrative unit.

The name of the king was used as a prefix in the coin legend to distinguish the coinage of a ruler of a particular dynasty from that of the other. Certain mints were also mentioned. For example, the names such as Mahālakṣmī in Gujrat and Bhīmala or Śrīmala have been mentioned as places where coins had been minted.

Coins of different weights have been found. Drammas without designation have been issued. The inscription of this period such as Harṣa inscription, the Nadol plate

1. E I I, I, P-162 fn.
4. JNSI, XVII, P-75 fn.
Alhapadeva, the Arthuna inscription, the Pehova inscription, the Asni inscription of Mahipāla 916 A.D. confirm that the dramma was one of the main media of exchange under most prominent dynasties, ruling in the period under study. Literary sources such as Avasyaka churni; a Jain work of 7th century A.D. mentioned Drammas, Ashaya, the commentator on Narada smriti of 8th century A.D. had mentioned one lakh drammas. Prabandhcintāmaṇī also gives information about drammas. Dramma of 67.2 grains and made of gold had been issued by Gāngeyadeva of Kalachuri. The maximum weight of these coins, preserved in the Lucknow Museum is 69.5 grains. The gold coins of Kumārpāla of Tomara dynasty of Ajmer (1019-49 A.D.) are drammass. The weight of these coins varies between 61.7 and 62.4 strains. The gold drammass of Govindchandra are found in large number. Such type of coins numbering 800 were discovered near Nanpura in Oudh. The coins of Chandella dynasty were in three metals, viz. gold, silver and copper. They were of 3 denominations-drammas, ardha-drammas and pada-drammas.

1. Altekar-Position of Women, P-22; ABORI, IX, I, P-75.
2. PCM, PP-18, 121, 163 etc.
3. CCIM, P-251.
5. Ibid, P-256 fn.
6. CCIM, P-251 fn; ASIAR, X, P-27 fn.
Dīnāra

This word is derived from the word Denasius of the Roman Empire. Indians were familiar with it since early Christian era. The Rajatarangini speaks of dīnārs of gold, silver and copper.Reference to dīnārs have also been found in the writings of the Muslim historians and other literary works. These coins have been mentioned in Lakhs and crores.

Dirhams

Both gold and silver dirhams were in circulation. Cunningham identifies these coins with the rude silver pieces generally known as 'Indo-Sasanian' with Indian characters inscribed on them. They were to be found throughout the Kabul valley, Punjab, Sind, Rājpūtānā and Gujrāt.

Rūpaka

These coins were also current which were generally made of silver but sometimes gold rūpakas were also made.

1. KSS PP-611, UBPK; UBPK, P-553.
2. RT, II, P-308 fn.
3. HIED, I, P-78 fn.
4. PCM, P-9; RT, I & II etc.
5. RT, II, P-309 fn; EI, XXI, P-78 fn; JASR, LX, P50 fn.
6. Cunningham—Ancient Geography, P-313.
8. RT, I, VI, 45, P-239.
Tankas

These were in circulation before the Muslim conquest\(^1\). Kalhana also mentioned this currency as currency of that time. Reconstruction of systematic history of Indian coinage prevalent in early medieval period is difficult, in the absence of actual specimens of various types and categories as described in literary and inscriptional sources.

GOLD COINS

It is right that gold coins issued by the Gupta emperors were fine in shape and the picture engravings of Kings, queens, animals etc. were remarkably artistic which prove that the art of coinage had acquired perfection during the Gupta age. But the some of the gold coins issued during early medieval period were also of no mean quality so far as their artistic worth and aesthetic quality are concerned. The literary description and archaeological finds provide sufficient information about the type and quality of currency of this period. A few examples are being given as under:

COINS OF HARṢA (7th century)

Harṣavardha of Thanesvara and Kanauj had issued some gold coins. One gold coin of Harṣa has been found in Farrukhabad

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\(^1\) HIED, III, P-445 fn.
in Uttar Pradesh. It is the specimen of first gold coinage which remained in circulation for a long time. An inscription in five lines on the obverse of the coin proves this fact. Due to rubbing, some of the letters at the top, the left border and the bottom on the obverse are not clear.

The coin is similar to the gold coins of the imperial Guptas in size and fabrication. The main features of this coin are as under:

**Metal:** Gold

**Shape:**
Round with 2.00cm as diameter, weight: 113.50 grains.

Inscription on obverse side: Brāhmi legend is inscribed in five lines as follows:-

Paramabha (a)
TTaraka Mahārā
cJādhirāja Parame
Śvara Śrī Mahārā
(Ja Ha) rshadeva

1. *JNSI*, XXVI, ii.
Inscription on REVERSE side:

On the reverse of this coin Śiva and Pārvati are seated on Nandi. Śiva is shown four handed and with nimbate. He holds in the right upper hand a rosary. The lower right hand rests on his right thigh. The left upper hand holds a trisula while the lower left is placed round the neck of his consort. He wears jāṭājūta and round earrings. Over the rosary seems to be the figure of a snake on a staff. Parvati is seated gracefully on Śiva's left with her left leg placed on her right thigh. She is looking at Śiva having placed her right hand on his left thigh. Her left hand is held out. The goddess is nimbate and has a beautiful coiffure at the back of her head. She wears lāltikā, ekāvalī and kuṇḍals. Below is seated the bull Nandi facing to right.

The characters of the Brahmī legend on the coin leave no doubt as to its date. They are similar to the Brahmī characters on the Madhuban and Bāns-kherā records of Harṣa.

The titles found on this coin before the name of Harsha-deva are similar to the titles to be found on his two above referred records and on his seals.

1. EI, IV, PP-208-12.
From district Malda a gold coin of Sasanka with Siva reclining on bull on the obverse and seated Laks̐mi on the reverse was obtained.

A large number of coins belonging to 8th century A.D. were for the most part of very base gold and were initiated from the standing king and seated goddess. The gold (base) coins issued by Prat̐apditya II, Durlabhaka (700 A.D.) had standing king, ki below left arm on the obverse. It was barbarous copy of the Kushâps. On the reverse, barbarous headless copy of seated goddess was shown. The coins of Vinayditya (Jayapīda) had standing King a mere trace of the device; to right Jaya and ke below on the obverse. On the reverse it had seated goddess as usual and legend to right. It belongs 750-80 A.D. Gold coins issued by Sasanka of Bengal, have been received from the region of Gaur. The chief space on these coins has been given to Siva and his emblem Nandi. These gold coins were called dinar in Bengal.

The Eastern Chedi dynasty had issued horseman type gold coins. Gold coins of Kashmir king, Pravarsena, had standing king to front with left hand on his hip and right hand raised with two seated figures below, on right and left on the obverse. King Harsha of Lohâra dynasty issued gold coins.

1. IA (1968-69) P-77.
bearing 'h' 'r' 'sh' 'ra' on the obverse and 'Jai Deva' on the reverse. He also issued gold coins of two classes. The obverse of class one coin depicts a horseman with lance to right. The legend goes as Harṣadeva. A goddess is seated on the reverse. The second has the legend Śrī Harṣadeve on the obverse and an elephant to right on the reverse.

The rulers of Candella dynasty issued alloyed gold coins of goddess type. The Tomara of Ajmer and Delhi issued this type of coins during the period about 978-1003 A.D. whose weight was 61.7 to 62.7 grains1. Three line legend in large characters i) Śrī matsa ii) llabshanapa iii) Ladeva on the obverse and a seated goddess facing in cross-legged posture with two hands each holding flower stalk has been shown on the reverse.

The Kalachuri dynasty of Dehala or Western Chedi (Jabalpur) of Gāngeyadeva had issued gold coins during 1015-1040 A.D. which are seated goddess type. They have three legend in bold characters, covering face on coin i) Śrīmadgā ii) Ḡgeyade iii) Vadotted border on the obverse and nimbate goddess seated, facing, cross-legged, with her hands spread out at her sides, each holding flower stalk.

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1. CCIM, PP 256-57, 259.
seated on a lotus with an elephant sprinkling water on her\textsuperscript{1}. Gold coins of Samacaradeva of Bengal are of two types—the archer type and the Rājālila type\textsuperscript{2}. King Śaśānka of Bengal issued gold coins bearing the figure of Śiva and his bull Nandi with the disc of a full moon behind him.\textsuperscript{3}

Gold coins of Kīrti\textsuperscript{*}-Verman (C 1055-1100 A.D.) had three line legend i) Śrīmatki ii) rthivarman iii) deva on the obverse and nimbate goddess seated facing.

Cross-legged with two hands each holding flower stalk on the reverse.

In 1924, 591 gold coins of Kalchuri rulers of Ratnapura were discovered at Sansari in Bilaspur Distt. (Madhya Pradesh)\textsuperscript{5}. These are of five types.

i) Flying Hanumān type.

ii) Gajasārdūla type.

iii) Lion type.

\begin{enumerate}
  \item Ibid, PP-149-CV.
  \item Ibid, P-CV.
  \item Bidyabinod, B.B. - \textit{Supplementary Catalogue of the coins in the Indian Museum Calcutta}. (Non - Muhammadan series, I), PP-63-65,68.
  \item JAHRS, XII, III, PP-177-78; JNSI, III, P-27 fn, 54 fn.
\end{enumerate}
iv) Dagger type.

v) A type with an indistinct object.

Gaja Sārdūla type gold coins are the representations of two figures on this coin-type. One figure is of the lion (Simha) and another of the elephant (Gaja). The representation depicts the scene of a fight between two animals. The fight is between a lion and an elephant and it has been termed as Gajasārdūla in literature. Hence this coin type was rightly described as Gajsārdūla coin-type. On these coins only the lion is operative. It attacks the elephant which seems to be helpless and raises its trunk in agony. The lion is rampant and stands majestically on the elephant. Its ferociousness has been shown with much force and dignity. The valour of the lion is indicated by its gaping mouth, although its tongue is not projected outside. The tail has also been shown very beautifully. It is very long and is upraised towards the top of the reverse. The curve in the tail is very artistic. The neck is well decorated and

1. JNSI, XIII, P-199.
2. CCIM, I, PL, XXVI, 8, 11, 12, 13.
3. CMI, PL, VIII, 6,9,10 & 11.
4. JNSI, XIII, PL 12-16.
is encircled by beaded dots. This type had been adopted by Prithvildeva I (1065-1090), Jallāldeva I (1090-1120), and Prithvildeva II (1135-1165).

The gold coins of Sallakshana are slightly debased and are few in number. One very peculiar difference is that this coin has 12 dots in the mekhala i.e. below the abdomen while on the coins of others, this number is only seven. But the dots in the nimbus is the same i.e.12. The earrings of the deity have a cup shape. Recently, a gold coin of Devapāla has been found¹.

Silver coins

Harśavardhana of Thanesvara and Kanauj had issued some silver coins of the Madhyadesa type of the Gupta silver coin-age. A hoard of these coins has been discovered at Bhi-taura in the Faizabad Distt. of Uttar-Pradesh. The hoard contained 9 coins of Śrī-Pratā-Pāsilā, 284 of Sri-Silāditya, 9 of Isanavar-man, 6 of Sarvavarman and 17 of Avanti-Varman. The last three rulers were the Kings of Maukharī dynasty of Kanauj. The coins bearing the name 'Pratapa-silā' have been attributed to king Prabhākarvardhana. The large quantity of coins have the name 'Śrī Silāditya' which are attributed to Harśavardhana.

¹. JNSI, XIII, P-122 fn.
The silver coins issued during Indo-Sassanian (Medieval) period (about 500 to 1000 A.D.) in North-Western India had roughly designed bust of king crescent in r field. The reverse had fire-altar with a female attendant on either side. Another, with four-stepped fire altar with attendants (rude). Gadhaiya currency of Rājpūtānā and Gujrat from about 750-1100 A.D. were of silver. Its obverse had rude imitation of Sassanian bust with dots and curves. The reverse had indication of fire-altar with lines and dots.

Tormāṇa Kings also issued sessanian type silver coins. On its obverse, there is heavy head ornament and Brāhmi legend on reverse, there is chakra below which 'Tor' is written. On the obverse, figure of a king and dated 52 has been read while the reverse has feathered peacock.

This type of silver coins remained in circulation from 6th to 12th century A.D. in Rājasthān. These coins had half picture of king with heavy ornaments, turban on the head, and legend in Pahalavi on the obverse. On reverse, there was fire altar and two watchmen on the two sides.

Small type silver coins were Gadhiya coins. These were rude. On the obverse was a picture of man and on the reverse a fire altar which were in circulation from 700-1200 A.D. in Gujrat, Malwa, and other parts of Northern India.
Silver coins issued by Bhojadeva I, of Kanauj (c-840-90 A.D.) had two lines of Brāhmī legend i) Śrīmadādi; ii) Varah on the obverse and the boar incarnation of Vishnu-man with boar’s head striding r: Vishnu’s emblem chakra (wheel) in r field and gadā (mace), Padama (lotus flower) and śāṅkha (Conch-shell) appear in the left. These coins were of Ādivara type (silver, irregular in shape). The Mukhari Kings of Kanauj had also issued silver coins which had figure of king on the obverse and date in figures on the reverse.

King Pravarsena1 had issued coins (silver) having seated Laxmī with lotus in left hand and the word Śrī-Pravara, written in Brāhmī character on the obverse. On the reverse is king standing to left holding crescent topped scepter in left hand. The right hand of the king is extended and there is a trisūlā above it. To right occurs the word ‘Sena’ and under the left arm of the king are the letters ‘Ki-da-ra’.

The silver coins of Prithvīdeva have been found from the beds of the Mahānadi near Balpur in Distt. Bilasur (Madhya Pradesh). These are lion type currency. The coins of Eastern or Magadha type of about 10th century A.D. had a very rude

head, Sri in large letters in front of face on the obverse and indications of Sassanian altar with attendants; in centre and the characters: 

The latest class of Sassanian coins is quite different. On the obverse is the figure of the varah in-carnation of Vishnu and on the reverse, in letter of the 9th century A.D. the legend Śrīmad Ādivarāh which was the title borne by Bhoja Deva of Kanauj in 9th Century A.D. is written.

Silver coins with a legend on the reverse with traces of fire altar symbol were also in vogue. Mihirbhoja (836-885 A.D.) had attributed refined silver drammams bearing the technique of Ādi-varah. Balotra were the silver coins and it was the currency of Gujrat. Muhammad Ufi had referred to these. Dirham was also silver coin and was most popular in the dominions of the descendants of Sultan Mahmud (998-1030 A.D.) who were ruling from Lahore. Both the Balotra and Dirham of Ufi were the silver issues of the Bull and Horseman type bearing the name of title 'Śāmantadeva' and weighing about 32 ratis. Their minting is known to have continued for centuries.

2. Sircar, D.C. - *Early Indian Numismatic and Epigraphical Studies*, PP-17, 18, 71.
Copper Coins

Copper coins were common enough during the period under study\(^1\). The description of these coins issued by various dynasties in Northern India has been given as under:

A well known copper seal has been found from Sonepat which had name of Harṣadeva\(^2\). It shows the figure of a seated bull and Śiva and Pārvati above him. Bāṇa-Bhaṭṭa in his Harṣacarita has mentioned his patron by this name. Not only the literature but archeology also proves that name of the ruler was Harṣadeva. For example, in the Nausāri grant and the Apsad stone inscription the name of this ruler is given as Harṣadeva.\(^3\) The royal title and the name Harṣadeva clearly indicate that the coin was issued by Harṣavardhana, the ruler of Uttarapatha during the first half of the 7th century A.D.

A large number of copper coins which have Śiva and his Bull on one side and a very rude representation of what appears to be\(^4\) in a fine altar with its two attendants (priests) on the reverse have been mentioned in the

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1. RT, P-101.
3. Fleet - *op.cit.* No.42; IA, XIII, 73,79.
contemporary literature. Many of them bear single letter or names in letters invogue in early medieval period. One has the name of Rudra and a second has the syllable Tri; which maybe the first syllable of well-known name of Śiva. The bull Nandi and the trident were well known symbols of Śiva. A large find of these coins was made at Rohtak. Probably they formed the common copper currency of the Punjab and Rajputana between 500-800 A.D.

3900 copper coins of various Kalchuris of Ratnapura were discovered in NauzaDhanpura in Śakti Tehsil of Bilaspur (Madhya Pradesh). As said earlier regarding the types, gold coins of Kalachuris of Ratanpura, silver coins are also of five types: i) Flying Hanumān type ii) Gaja-sārdūla type iii) Lion type iv) Dagger type v) A type with an indistinct object. These coins bear the same objects engraved on them as have been found on their gold coins.

The various rulers issued coins of different forms of the monkey god, which maybe divided into five varieties:

i) Flying Hanumān type.

ii) Standing Hanumān crushing a demon.

iii) Sitting Hanumān crushing a demon.

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1. JNSI, XVIII, PP-111-112.
iv) Hanumān with only two arms.

v) Trisūlḍhāri Hanumān.

vi) Dhvajadhāri Hanumān.

Jallaldeva I (1090-1120 A.D.) had issued Hanumān and lion type copper coins. Prithvīdeva II (1135-1165 A.D.) had also issued such coins. According to M.G. Diskhit the Hanumān type copper coins of Chandell as had the figure holding curved shield in the left hand and a hilted sword in the right hand. Hanumān types has been invariably issued in copper. The pose of the figure is of the pavitra of a warrior. The figure of Hanumān on the coin of Prithvīvarman takes more space of the reverse than the figure of the coin of the two previous issues. The head of the monkey-god touches the top end of the coin. The legs touch the foot end. Hence the figure shows a standing pose. A few copper coins of the Mahākośala Kings and of Jayavarman of Mōhabā have a figure of Hanumān on the obverse and a Nāgari legend on the reverse.

Horseman & Bull type copper coins

The Horseman and Bull coin-type were issued mostly by Tomara & Pratihāra dynasties. This type was originally

1. JNSI, XXVIII, P-70.
introduced by the Shahis of Ohind. The obverse of this coin type represents the horseman carrying a lance. The Shahi Bull is bulky, decorative and much more impressive than that represented on the Rājpūt coins.

The bull is humped and has been shown seated recumbent. It has saddle-cloth on the body. There is a trident mark on its hump. On the Saddle cloth there are some marks.

Mahipāla (1103-1128 A.D.) imitates the complete representation on the Shahi coinage, the horseman on the obverse and the bull on the reverse. The minters of Mahipāla were ordinary artisans who lacked refinement and proportion. Both the representations of the horseman and the bull are very crude.

Somala Devi also issued horseman type copper coins. These coins are found in three dominations, 65 grains, 33 grains and 17 grains. They are also of three sizes. On the observe, there is the legend in Nāgari characters in two lines-(i) Śrī Soma, (2) Lladevi. There is figure of the horseman on the reverse. The horseman is sitting on the back

1. ASIAR, I, P-149; CMI, P-85.
2. CMI, P-53.
3. Ibid, PL VI, No.11.
of the horse. He is holding reins in his left hand. His right hand is stretched which indicates that the rider is charging the horse with the help of some stick etc.

**Seated Goddess type coins**

A large number of copper coins of this period have this variety. For example, the copper coins of Udayaditya bear the figure of Laxmī in a very crude form. The details on the reverse are as under: Inside a circle of dots, the well proportioned frontal pose of four armed Laxmī, nimbatē sitting cross legged in viśwa-Padmāsana pose with the lotuses in her two upper hands, prabhamnadap, earrings, a necklace and urmālā (thigh ornament), the details and oval-shaped face of Laxmī, left mostly unfinished have been shown.

Copper coins issued by pratāpaditya II, Durlabhaka, 700 A.D. had barbarous headless copy of seated goddess on the reverse. On the obverse, it had utterly barbarous copy of the Kushan standing king, ki below left arm. The queen of Kashmir, Diddā (980-1003 A.D.) issued copper coins. The obverse of which had goddess as usual; Śrī in left margin and Diddā in right. On the Reverse there was king standing, below to right margin was de.

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King Harṣa (1089-1101 A.D.) also issued copper coins having goddess, I, Ha on the obverse. On the reverse there were king, deva below right hand. Copper coins of Mihirkul had a King's picture on the obverse holding arrow and bow. On the reverse, there is chakra and below it 'Tor' (Tormāṇ) is engraved.

Copper coins of Uttapala dynasty were without art. On obverse, these had seated goddess on right side and legend 'Sank' (r). On reverse, there were crude standing figure of king on right and legend varm. Queen Sugandha also issued copper coins. On the obverse of the same was engraved goddess along with Śrī 'Sugandhā'. On the reverse 'Davya' word was engraved.

Non-Laxmī type copper coins, called Gaddiya coins can be divided in three subgroups:

1) Copper coins with a crude figure of a ruler on the obverse and designs generally identified as fire-altar on the reverse.

II) Copper coins with legend ओङ्ग अंकरे and श्र अंकरे on the reverse with traces of fire altar symbol

iii) Copper coins having figure of horse and soldier on the reverse.

Copper coins of this (Gaddiya) type remained in circulation from 700 to 1200 A.D. in Gujarat, Malwa and Rajashtan.

Copper coins including bronze coins were also issued by the rulers of Northern India. For example, copper-bronze coins have elephant on the obverse, and lion on the reverse with title 'Taxila' have been described in contemporary literature. The other type had humped bull facing right with small swastika under bull's head and Ujjain Symbol. The other variety had tree in railing, 'Sadaruchakra' or Mauryan wheel, Yupa post fish and turtles in square tank, 'Trisūla on trident' river with fish and Ujjain Symbol.

The Brāhmaṇa king's of Gāndhāra or Ohind (C 860-950 A.D.) had introduced billion coins having seated bull and horseman on them. Someśvardeva of early 11th century had issued billion coins having horseman with lance (To the right), Śrī Someśvardeva, and recumbent humped bull. Madan Pāl-deva also issued such coins.

Clay seals

Clay seals were also in use. Some of them were sun dried while others were properly brunt. From the excavations at Delhi, 24 clay sealings have been received which were of Post Gupta period. These are of Nālandā type showing Buddha seated in Bhumiśparsā Mudrā with the usual Buddhist philosophical formula of 8th century A.D. Further, the Nālandā clay seal inscription of Suva or Sucha is inscribed on a clay seal. One of the best preserved seals is oval in shape. The inscription on the seal is a table of the family of Hārṣa of Thanesvāra.

The description of various types of coins issued by the rulers of early medieval period makes clear that all the coins, except a few come under the main five categories; i) seated goddess type ii) Gajasārdūla type iii) The Horseman and bull type iv) Hanumān type and v) Lion type. It seems necessary to recapitulate, briefly the chief characteristics of each type so that a distinction could be made among them on the basis of their workmanship and artistic worth which is so essential to comprehend the evolution of art and craft during the period under study.

1. IA, 1969-70, P-22.
2. Sahai, Dr. Bhagwant - The inscriptions of Rihar, P-49.
Seated goddess type:

There are some gold and about 400 silver coins which bear the legend 'Srīman Mahipāladeva' on the obverse. The coins are of the usual seated goddess type. Recently, 313 silver coins of Mahipāla have been found from Jhansi, near Gwalior.

The coinage of the Chandella dynasty which has been found is from the reign of Kīrtivarman. He issued coins only in gold, of good depiction. Paramārs of Malwa had also issued coins of this type. 54 silver coins of Madanavarman have been found which are of the seated-goddess type. His first silver coin was known from the collection of Hoey. The Rewa State hoard had 48 silver coins and the Jhansi hoard contained 5 coins.

One gold coin of Paramardi was found at Khajurāho and is now in the Indian Museum, Calcutta. Some other coins of seated goddess type are available in the Indian Museum, Calcutta.

1. CMI, P-85.
2. JINSI, XXVII, P-41.
3. IA, XXXVII, P-147.
5. CCIM, I, PI, XXVI, 8,9.
Gajaśārdūla type:

The rulers of Northern India had issued coins of this type. Five large-size coins of Jajalladeva have been kept in the Indian Museum, weighing 58.58, 59.9, 56.3 grains. Various other coins of this king and Ratnadeva have been found from different sites. 405 coins of the Sansari hoard of Pṛithvīdeva made of gold and copper were of this type. The obverse of these coins carries the name of the issuer. The legend is in bold Nāgari characters which covers the whole area. It is generally written in two lines. On the reverse the scene of a fight between the lion and elephant has been shown. On most of the coins, the elephant has been depicted as running. But on some coins, it has been shown reclining on the side, on some falling towards the back and on others running ahead. The lion's figure has been depicted most artistically and expressively. He is shown in a fighting mood with up-raised tail, gaping mouth, and ferocious looks standing majestically on the elephant. On some coins, dots are on the middle portion of the elephant which are for decorative purpose. There are also two symbol marks, one

1. Ibid., P-254.
2. JAHRS, XII, P-178.
3. CMI, Pl, 6,7,8,9; JNSI, P-199.
is aṅkusha (goad) and other is the Nāgari letter ma or ma. These coins are the best specimens of the artistic creations represented by coinage of that period.

Hanumāna Type:

Only two Rajput dynasties (I) the Kalchuri rulers of Ratnapura¹ and (II) the Chandella rulers of Bundelkhandā had issued such type of coins. There are many forms of Hanumāna represented on the coins.

Most of the coins of this type are copper made, and the Chandellas had imitated the coins of the Kalchuris of Tripuri².

Lion Type:

The coins of this type were issued by the rulers of the kalachuri dynasty of Ratnapura only. The Dhanpur hoard has yielded a copper coin of this type. The coins bear the figure of a lion who is standing majestically covering the whole space on the reverse. The tail, the two paws and the mouth of the beast are clear. Dots on the border are also

1. JNSI, XVIII, PP-111-12.
2. ASIAR, X, P-25.
clear. Silver coins of this type of Parithvīdeva II are very tiny and the available three coins weigh only six grains each.

**HORSEMAN AND BULL TYPE.**

Various rulers of Northern India had issued coins of this type. Most of the coins had 51 grains weight. A large number of such coins bear the name of King Anangpāl, the ruler of Tomar dynasty. These are billion coins. Other rulers such as Madanpāldeva, Somesvara, Prithvīrāja had issued this type of coins. On these coins the bull is clear and there is a trident mark on the hump of the bull. Several billion coins of this type have been recovered from various sites.

In summary it seems appropriate to highlight the quality of craftsmanship and the artistic worth of the coinage issued during the early middle period and the development of art and craft as reflected through coin industry.

In this regard, the description given above clearly speaks that the variety found in shapes, designs and engraved figures on the coins was amazing revealing thereby that the artisans who fabricated coins had attained a high degree of

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1. JNSI, III, PP-31, 42; XVIII, P-112.
2. CMI PP-84, 86, 91-92.
craftsmanship and creative ability. They were capable to give a concrete shape to their ideas in the form of new motifs and designs on small pieces of metal i.e. coins.

There is no denying the fact that some type of coins issued during early medieval period were specimens of quite crude and bad craftsmanship but some such as those of Gaja-sārdula type, Hanumāna type, seated goddess type, horseman type and lion type issued by Kalachauri, Tomara, Paramār, Chandella and Chauhān dynasties were of high artistic merit. The study of coins involve in Northern India during the period under survey also shows that the knowledge of metallurgy of the artisans of that period had also much advanced. They used a variety of metals and alloys such as gold, silver, copper bronze and billion in making coins. Such a huge variety of them with varying motifs of such those of animals, gods and goddesses, deities, plants and human figures of Kingstī and queens could not be crafted without the use of advanced techniques. The artists and craftsmen of the period must have evolved them which is clear testimony of their ingenuity, technical skill and dedication to their profession.