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On behalf of Mumbai Coin Society  
and team NMCS I wish all our  
patrons, well-wishers, supporters,  
advisers, sponsors and subscribers  
a very Happy Independence Day!

Admin Editor  
Amit Surana



15 August  
**Happy**  
**Independence Day**





## A Tale of Valour

- Col (Dr) J Dutta & Capt (Dr) Anjali Dutta

Born in 1937 in Mumbai, Maj Gen Ian Cardozo, AVSM, SM graduated from the National Defence Academy with unprecedented laurels – the only cadet to win both a gold and silver medal – for being the best all round cadet and for being first in order of merit. He was commissioned in the highly decorated Regiment of the 5th Gorkha Rifles in its 1st Battalion in 1958. His moment of truth happened during the 1971 war in Sylhet. In a swift military offensive, India defeated Pakistan within 13 days, liberated a region and led to the creation of Bangladesh. Incidentally, it was also the Indian army's first heli-borne operation behind enemy lines. A mine blast injury shattered his left leg. The heavy artillery shelling had left the Indian troops minus medical aid. That meant no morphine, anaesthesia or surgical instruments. It also meant, as Cardozo puts it "lifeless or leg-less". Cardozo did the unthinkable. Pulling out his Regiment's weapon, a khukri dagger, the 34-year-old Major chopped off his own leg, telling his batman, "Now go and bury it somewhere!" Just like that.

The incident in Sylhet did not deter Cardozo from going on to serve his country. He was even offered a good disability pension, a plot of land, a petrol pump to run and even free education for his sons – offers tempting enough for him to hang his boots. Cardozo refused to be the one-legged soldier of the fairy tale – sitting prettily on a mantelpiece. Not one to give up at all, let alone concede an inch, he kept himself in peak physical condition by walking, running and swimming regularly – all with his prosthetic limb. Through sheer willpower and determination, he continued to perform his duties as a soldier and became the first disabled officer in the Indian Army to command an infantry battalion and a brigade. In spite of not being physically at par with other officers, he defeated many 'two-legged' soldiers to emerge victorious in many fitness tests during his stint in the army. Major General (Retd.) Ian Cardozo, AVSM, SM, went on to command an Infantry Brigade, an Infantry Division and retired in 1993 from his office as the Chief of Staff of a Corps in the Eastern Sector. At 80, Cardozo has merely shifted his battleground and continues to fight for the disabled as well as for the honour that every soldier so deserves.

Cardozo has written quite a few books including Param Vir – Our Heroes in Battle and The Sinking of INS Kukri - Survivors Stories. It is a combination of grit and sense of service because of which Cardozo also participates in marathons. He has been a familiar face at the Mumbai Marathon where he is a regular member of the contingent sent by War Wounded Foundation that more than just inspires.



## Mahabharata to Mahajanapada: The Story of India's First Money

- Mitresh Singh



"15 August 1947 is a date etched in the memory of all Indians. This day India began its Tryst with Destiny and we have not looked back since. India is now modern and vibrant with shiny new cities and a wide diaspora spread globally. The stock market is at an all time high while our GDP growth shows a healthy trajectory. While we do indeed feel proud of our achievements and enjoy the luxuries and lifestyle that money can provide, one cannot help but wonder How did it all start? When did India coin its first money? Who issued it? What did it look like? What was its use in daily life?.....and similar such questions.

On this special occasion of India's Independence Day, we look back and trace the origin's when an Independent India, long before foreign invasions and colonization, first issued its coinage."





## Prologue

**Mahabharata** is one of the two great Sanskrit epics of Ancient India, the other being **Ramayana**. The Mahabharata translates as 'The Great Tale of the Bharata Dynasty' and is the longest poem ever written being 4 times the length of Ramayana and 10 times the length of the two ancient Greek poems Iliad and Odyssey combined, composed by Homer. The Mahabharata is an epic legendary narrative of the Kurukshetra War between the Kauravas and the Pāṇḍavas. 'Bhagwad Gita' is an important component of the Mahabharata. It is believed the Kurukshetra War occurred between 1200 – 800 BC, with some holding the view it occurred much earlier ca 3000 BC or even earlier, while some historians and archaeologists argue this conflict occurred in 1000 BC.

One of the fallouts of the Kurukshetra War was the political re-organization in India and the emergence of 16 Big States (Solasa Mahajanapadas) few centuries later, of which Magadha became the most prominent and dominant by the time of Buddha ca 600 BC. It was also the time when the economy transitioned from predominantly barter and proto-money to coined money system.

This is the story of India's first money of how coinage evolved in India from the time of the Mahabharata to the Mahajanapadas.

## Imaginary Recreation

Manu rubbed his eyes, stretched and yawned. The warm sun, cool breeze and heavy lunch had made him doze off below the Neem tree at the outskirts of his village near the foothills of the Himalaya mountains. Manu was a young boy of 12 years and like most boys his age whiled his time after 'Gurukula' (village school) herding the cattle, playing the game of slingshots, swimming in the pond or taking potshots at the mango tree with his catapult. But most of all he enjoyed lazing round the lush meadows around the hills and daydream. As he gradually regained his composure post his impromptu afternoon siesta, he suddenly remembered the herd of cows he had brought to the fields to graze. Alarmed he looked around but was reassured to see them happily munch the grass close by. There is something timeless in the way bovines move their jaws sideways munching their food and recirculating the partially digested food back to their mouth for further cud-chewing. The herd could munch and stay forever at the meadows however Manu needed to make sure the herd was back home secure in the barn behind his hut else he risked getting his ears boxed by his father, a strict disciplinarian and, as per Manu, a lecturer par excellence on morals and ethics to his son and his truant ways!!

Manu was becoming restless and bored with his idyllic village life but he was not complaining. His grandfather Arya with the great white beard and thick shaggy eyebrows had regaled him with stories of how many winters ago his family had trekked across the torturous vast steppes of Central Asia avoiding the Huns, the cold snow and harsh mountain pathways before arriving at this blessed land of plenty that was now home for his tribe. Arya had mentioned something about the battle with the local dark skinned people who had packed and disappeared beyond the mountains never to be seen again. Manu loved his family and especially his little 7 year old sister Migi with her pony pig-tails and smiling cherubic face with slightly crinkled eyes that danced merrily whenever she laughed. He affectionately called her 'choti-bina' (choti – small, bina – corrupt for 'behen' or 'behena' meaning sister). His mother Lajo daily gave him 'chapatti' (unleavened flat rounded Indian bread) with 'dal' (lentils) and 'sabji' (vegetables) and insisted he eat them to grow big and strong. He wondered why healthy food tasted so horrible and why he couldn't just have the juicy mangoes and watermelons instead. What would happen if eating all the vegetables he hated made him so tall his head would shatter the thatched roof of their hut? That would serve his mother right for feeding him all the time!

Exasperated, he kicked the pebbles on the ground, herded his cows and went home. He couldn't see Loha, his father, around so he guessed he must be at his workshop at the backyard hammering the iron sheet to make knives, sword, daggers, arrow and spearhead for the King's army. The bladesmith skills of Loha were legendary. Manu looked curiously at the coal furnace, water tank, heavy iron anvil with its broad face, the hammer, chisel, clipper and other tools of his father's trade lying around. He had never really explored his father's workshop before. Suddenly he spotted few cut metal scrap pieces lying below the anvil table. He picked them up, looked at it curiously turning it back to front and back again, placed a piece on the anvil and with a hammer gave a sharp blow to the metal. It flattened immediately and became a bit thinner and spread out. His curiosity now fully aroused, Manu gently clipped all around the edges till the metal shape resembled a mini-chapatti of his mother. Not satisfied with his handicraft so far, Manu then again placed the circular disc on the anvil and with a chisel carefully carved the image of his favorite herd stallion, the Nandi-bull on the face of the disc. Now that the design was done, Manu stepped back with a smile of satisfaction and looked at the round metal object with the symbol he had created. **The idea of a coin had just been born.**





Migi's 8th birthday was fast approaching and Manu was wondering what to gift her. He had no furskin, cattle or sacks of wheat of his own to exchange for a small toy for Migi. Manu took the carved metal disc and went to the local toy-maker shop in his village. He offered Babu, the toymaker, his disc in exchange for an image of a 'dancing girl with a hand on her hip' as a present for Migi. Babu was puzzled and turned the object back and forth in his hand asking Manu what it was. Manu proudly told him it was his disc bearing his unique symbol and the metal source was the same as that used in the weapons of war made by his father, only smaller, portable and easier to carry. Babu smiled at the enthusiasm of the youth and accepted the disc giving the toy to Manu. Manu presented the 'dancing girl with hands on her hip' toy to Migi who was very happy and showed it off to all her friends in the village. The other children soon badgered their parents for a similar toy as Migi's so the villagers approached Manu to request if he could make the same disc for them too with which to exchange and buy toys for their children. Manu gladly obliged and took orders for Biku, Soha, Mili, Bala, Rati, Mosa and other villagers whom he knew well. Slowly the supply of discs picked up. Everyone in the village knew it as 'Manu's Disc' as it bore the Nandi-bull symbol and the metal was guaranteed genuine backed by his father's legendary reputation. The villagers paid him the proportionate metal value of the disc in commodity exchange sufficient to meet his needs viz jaggery, millets, barley, rice, lentils, milk, honey etc. **Coinage had taken its first baby steps as a medium of use and exchange.**

Soon an unexpected problem arose. Babu the toymaker came to Manu and complained that all villagers were bringing Manu's disc to him for exchange with toys but the discs did not weigh the same on the weighing scale as some were heavy while others were light. Manu scratched his head and requested time for a solution. He had never thought about this issue as he just picked up whatever metal scraps he found in his father's workshop and hammered it without really bothering about its weight. Manu stepped out of his hut deep in thought pondering what to do next. He looked around and thought he could use the broken brick pieces as a weighing balance but each chipped piece was irregular and uneven. He then tried the fruits and vegetables in his house but they were also not of consistent shape or size plus he realized they were seasonal. The seeds of a mango vs a grape were hugely disproportionate so couldn't be used. The loose pebbles and gravel stones were also all uneven. As he was looking around, Migi suddenly ran in with her pet blue finch bird, Chiriya, on her shoulder twittering and chattering constantly. Migi placed her arm around Manu's neck hoping for a swing in the air but Manu was in no mood to oblige. Disappointed, Migi started complaining to Chiriya who twittered noisily even more. Migi said loudly to Chiriya how she wished Chiriya could tweet her complaints to their mother. Manu shook his head, only little bird-brained girls with their fanciful imagination and childish ideas could dream it possible to use a little blue bird for instant messaging. He pushed Migi aside but his hand got entangled in the long beaded necklace Migi wore around her neck that broke and all beads fell on the floor. Migi ran out sobbing and said their mother would soon come and whack Manu for breaking her necklace. Manu got down on his hands and knees and started picking up the beads one by one grumbling at this unnecessary distraction and chore. He had seen his mother patiently bead the colorful 'ratti' seeds of the Gunja plant that grew plentiful in their village and within the backyard of his home. As he picked them up, he couldn't help but notice how shiny, smooth, even and uniform the beads looked in their shape and size. He gathered a fistful of them in his hands and went to Babu's shop where at the weighing scale he was surprised to find each seed weighed almost the same. **A common weighing medium had just been discovered.**

Manu took a spare weighing scale from Babu and installed it in the workshop corner. Thence onwards, each time Manu would make a disc, he would test its weight against the 'ratti' seeds before clipping around the edges to make it uniform weight before handing it to the villagers. In due course of time Manu started experimenting with more symbols and varieties than his favourite Nandi-bull. He thought about past transactions and needs expressed by his customers and etched 2 or more symbols to denote higher multiples for the disc or cutting the disc into smaller portions for fractional denomination. Soon the symbols grew to 3, then 4 and later 5. For a more orderly system, he also devised a specific coding system for the identification of the symbols, and its use, drew it with charcoal on a sheepskin and hung it like a chart outside his hut for the villagers to readily identify its use as follows:





- **Nandi-bull**- used in cattle trade (cows, goats, pigs, horses, bull, sheep etc) and dairy products (milk, cheese, butter, ghee, yoghurt etc)
- **Sun** – ripened harvest above the ground eg wheat, maize, barley, millets, rice, vegetables etc
- **Moon** - tubular roots below the ground eg potato, onion, ginger, garlic, peanut etc
- **Fish-in-tank** - fresh water fish from ponds, lakes and rivers in and around the village
- **Swimming fish** – Fresh water fish from ponds, lakes and rivers from other villages
- **Tree and leaf** - wood and timber related trade
- **Hill** - products from the forest areas eg berries, fruits, honey etc.
- **Arched hill** – votive offerings at stupas of the ‘Enlightened One’ (Buddha).
- **Pulley and scale** – objects made of iron and metallurgy products
- **Standing human** - temple worship and religious offerings
- **Animals** - meat and furskins trade
- **Spade and plough** - agricultural tools and implements
- **Spoked wheel** – Transportation and trade of oxen-bullock carts
- **Dumb-bells** – Sports events viz wrestling, cock-fighting, bull-racing etc
- **Hollow cross** – rectangular rain water harvesting items and implements
- **Abstract designs** – beads, ornaments, jewellery, dyes and patterns used in home and temple decoration, celestial occasions etc

Initially, discs bore only single symbols limited to its specific use but then multi-symbols were introduced to cater to multiple bargains within a single transaction. Manu however consciously avoided any symbol depicting royalty fearing state persecution or any association with the ‘Madhushala’ (liquor trade) since he daily saw its intoxicating ill effects on the women of his village. Manu kept on adding new symbols and soon he had a list/chart of many hundreds of symbols ranging from simple to complex. People now had choice to stick to a single symbol disc for a single deal or use multi-symbol discs in various combinations to meet their multiple needs in a single trade. As the needs and demand grew, so did the types of symbols on the disc till there were hundreds of these to cater to each and every known type of trade and transaction prevalent in those times. **Coinage was now established in daily use and trade.**

Gradually the neighbouring villages heard about Manu’s discs and started accepting it within their area too. As fame of these discs spread and it travelled village to village, more people started striking their own discs modeled after the original Manu’s discs. There soon arose the problem of counterfeiting, weight uniformity and metal quality. People started sending the discs back to Manu to verify these were indeed genuine. While Manu tried his best to accommodate such demand by countermarking the specimens he identified as products from his own hands and from his workshop, the supply was unending and overwhelming. Soon he had no choice but to go to the King and complain about the counterfeits that was sully his name. The King ordered that henceforth all discs would be issued in the King’s name only bearing the state’s official emblem as sign of authenticity and guaranty and whoever found counterfeiting the discs would be severely punished. Manu was appointed the official mint master and assayer to ensure strict mint control over quality and quantity. The King requested Manu to add a 6-arm solar symbol to the disc as the royal insignia representing 4-arms of Shiva/Vishnu and 2-arms of the King to reflect power and divinity. **The State had now officially taken over the coinage function as its royal prerogative.**

(**Note:** The earliest coins were NOT round but came in various forms and shape viz bars, ingots etc. The round shape of the coin as we know today came much later.)



## Need for Coinage

The need for coins arose due to difficulty in continuing with the barter system for smaller or fractional items or where the mutual needs of the parties to the barter were disproportionate. In Ancient India, the cow was the highest unit for exchange while beads or cowrie shells denoted the commonest exchange unit. A cow normally equivalent in value to, say, 10 bags of rice, could not be divided to fulfil the need for only 2 bags of rice. Metal, being durable and handy, gradually gained acceptance as a viable medium for transactions and with it came the need for uniformity and standardization of weight to serve the purpose of exchange. This was achieved by weighing the metal against the most common available seed native to India ie Abrus Precatorius plant, called **Gunja** in Sanskrit and **Raktika** in Prakrit (**ratti** in short), whose bright red coloured and black tipped seeds was very consistent in weight. One ratti was equal to the weight of one seed that was later standardized to 0.12125 grams (incidentally, Ratti from its humble origin as a seed, survives to this day in India in the context of weighing jewellery). Stamping and marking the metal by an authentic source, first by the local trade guilds or merchants and later by the State, therefore led to the birth of a coin.

## Ratti Seeds

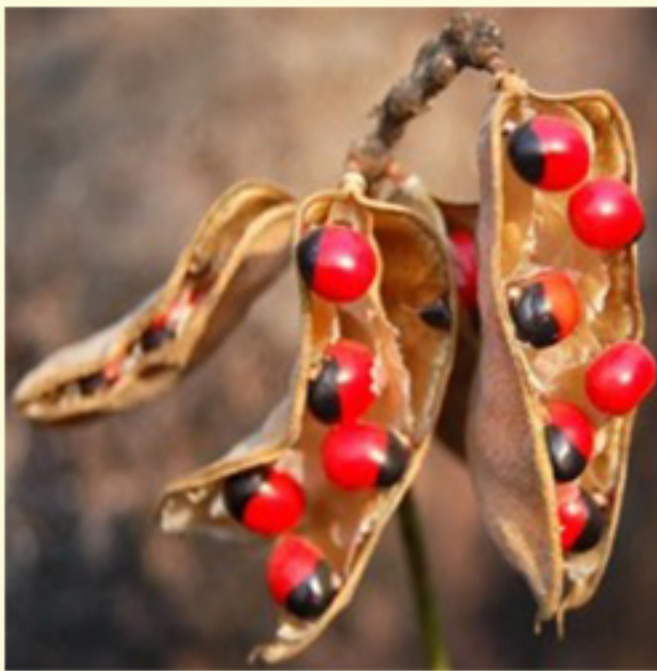


FIG 1

## Origin of Coinage in India

The origin for the Coinage of India is shrouded in the mists of time. No one can pinpoint with certainty to a particular time period, dynasty or ruler who introduced the first coins in India. Ancient Literature refers to multiple names for coins, metal type and denomination viz nishaka, suvarna, mashaka, pana, satamana, karshapana, vimsatika, kakani, hiranyapind, purana, rupa, etc. Both multiples (dvi, tri) as well as fractions (ardha, chattura, ashta) are known. Based on literary context, **Nishaka** was probably an ornament while **Hiranyapind** was unstamped bullion in the shape of an uneven lump resembling a 'pind' (hill). **Rupa** meant any metal that bore a stamped 'roop' (image), a reference probably to the symbols seen on punch-mark coins. **Suvarna**, derived from 'sundar' (beautiful) and 'varna' (colour), probably referred to anything in gold as it is still known today.

**Satamana** and its multiple/fractions was the currency system in North-west part of India; **Vimsatika** was used in North India, however, **Karshapana** was the common standard coin by 600 BC onwards, as mentioned in various texts and by various authors, as per below table:





Denomination & its fractions	Panini's "Asthadhyayi" 500 BC	Buddhist Jataka Literature 400 BC	Chanakya's "Arthshastra" 300 BC
1	Karshapana; Pana	Kahapana	Pana
1/2	Ardha; Bhaga	Addha	Ardha-pana
1/4	Pada	Pada; Chattaro-masaka	Pada
1/8	Dvi-masha	Dve-masaka	Ashta-bhaga
1/16	Masha	Eka-masaka	Mashaks
1/32	Ardh-mash; Kakani; Ardha-kakani	Addha-masaka; Kakani -----	Ardha-mashaks; Kakani; Ardha-kakani

FIG 2

**Manu Dharma Shastra** describes the following ratti-based conversion standard for various metals below :

### Silver

1 Ratti = 0.11g; 2 Ratti = 1 Masaka; 32 Ratti = 1 Dharana /Purana\*; 320 Ratti = 1 Satamana

(\* This became the Magadha/Mauryan standard for silver karshapana = 1 ratti \*0.11g\*32 = 3.5g)

### Gold

5 Ratti = 1 Masha; 80 Ratti = 1 Suvarna; 320 Ratti = 1 Pala/Nishka; 3200 Ratti = 1 Dharana

### Copper

80 Ratti = 1 Karshapana

The excavations of huge granaries in Harappa and Mohen-jo-daro (Indus Valley Civilization, 3000 BC) indicate agriculture fulfilling the need of economy with the granaries functioning as modern banks or as State Treasury. By Vedic times (1,500 BC), cattle (cows) were used as medium of exchange. We can still see the remnant of this Vedic tradition in rural India under the practice of 'go-dan' (cow-donation) where, following a ceremony, the cow is handed over to the priest by 'go-puchha' (cow-tail).





It is believed that coinage in India developed independently of Lydia (Greece) and China (8th – 6th Century BC). The Lydians struck irregular ovular or bean shaped coins on electrum (gold-silver alloy) with initially striations on one side, then simple incuse punches and finally, under King Alyattes and his son Croesus, the famous lion-bull stater. China made cast coins in bronze in the shape of knives, spades and keys, however, its most famous cast coin is in round shape with a hole in it allowing a group of them to be strung and carried together for trade. For its coins, India used the 'punch mark' technique that was unique, peculiar and devoid of any foreign influence of either the Western coinage tradition of the Lydians or the Eastern coinage tradition of the Chinese.

From the Lydians, coinage spread to the various Greek cities and from thence to the Persians who adopted the Greek mint techniques for its own coinage, the most famous being the gold 'Darics' featuring an archer. The Behistun rock inscriptions of Darius "The Great" (540 BC) indicate Gandhara as the 20th and richest satrapy of the Persian Empire. The peculiar "bent bar" silver coins found in Gandhara with a prominent solar symbol punched on extreme ends of the bar are so radically different from the silver 'sigloi' coins of the Persian Empire featuring the King (or an archer) as sitting/kneeling that it is now commonly accepted that such a radically different coinage in the shape of bent bar, or the choice of symbols on it, would not have been introduced by the Persians for a particular region alone (Gandhara) but that it points to a much earlier existence of the coin type which was continued by the Persians. The bent bar coin later gave way to the cut silver type of punched coins. Similarly, coins of Kuntala Janapada bear a curious wheel-pulley symbol with the force of the punch making the coin scyphate in shape. No one knows the meaning or intent behind placing this particular symbol on the coin.

## The Age of the Mahajanapadas

The **Janapadas** were the realms, republics and kingdoms of the Indian Vedic period late Bronze Age into the Iron Age from about 1500 BC - 600 BC. By around 600 BC, most of the Janapadas were consolidated into sixteen (16) **Mahajanapada's**.

Jana means "people" or "subject" while pada means "foot, realm, territory". Janapada therefore means "People's Republic, where people come together to choose their leader." In the Vedic **Samhitas** (oldest layer of the Vedas dealing with prayers, mantras, hymns, litanies & benedictions), the term jana denotes a tribe, whose members believed in a shared ancestry. The janas were headed by a king. The samiti was a common assembly of the jana members, and had the power to elect or dethrone the king. The sabha was a smaller assembly of wise elders, who advised the king. In modern context, we have the Rajya Sabha & Lok Sabha as fundamental pillars of our constitutional democracy, as well as Gram Panchayat Samiti at grassroots level, both following an ancient tradition. Further, Republic of India in local vernacular is termed '**Bharat Gana-rajya**' where 'Gana' is synonymous with 'Jana' being another variant meaning the same.

The **Janas** were originally semi-nomadic pastoral communities, but gradually came to be associated with specific territories as they became less mobile. Various kulas (clans) developed within the jana, each with its own chief. Gradually, the necessities of defence and warfare prompted the janas to form military groupings headed by janapadins (Kshatriya warriors). This model ultimately evolved into the establishment of political units known as the Janapadas.

Often rivers formed the boundaries of two neighboring kingdoms, as was the case between the northern and southern Panchala and between the western (Pandava's Kingdom) and eastern (Kaurava's Kingdom) Kuru. Sometimes, large forests, which were larger than the kingdoms themselves, formed their boundaries as was the case of the Naimisha Forest between Panchala and Kosala kingdoms. Mountain ranges like Himalaya, Vindhya etc also formed their boundaries.

Some kingdoms possessed a main city that served as its capital eg Indraprastha (Pandavas), Hastinapura (Kauravas), Ahichhatra (Northern Panchala), Kampila (Southern Panchala), Ayodhya (Kosala) etc. Apart from the main city or capital, where the palace of the ruling king was situated, there were small towns and villages spread in a kingdom. Tax was collected by the officers appointed by the king in return for protection from the attack by other janapadas as well as from invading foreign nomadic tribes. The king also enforced code and order in his kingdom by punishing the guilty.



Following the great 'Mahabharata' war in 1,000 BC, certain **Mahajanapadas** (Big States) formed in India. The Buddhist text "Anguttara Nikaya" frequently refers to 'Solasa (16) Mahajanapadas', listed below with their modern locations:

1. **Anga** - Munger & Bhagalpur in Bihar,
2. **Asmaka** - Paithan in Maharashtra,
3. **Avanti** - Ujjain in Madhya Pradesh (MP),
4. **Chedi** - Bundelkhand in MP,
5. **Gandhara** – Qandhar in Afghanistan; Peshawar & Rawalpindi in Pakistan
6. **Kamboja** - Poonch in Kashmir,
7. **Kasi** - Varanasi in Uttar Pradesh (UP),
8. **Kosala** - Faizabad, Gonda, Bahraich in UP,
9. **Kuru** – Thanesar (Haryana); Delhi; Meerut (UP),
10. **Matsya** - Jaipur, Alwar & Bharatpur in Rajasthan,
11. **Malla** - Deoria, Basti & Gorakhpur in UP,
12. **Magadha** - Patna & Gaya in Bihar,
13. **Panchala** - Bareilly & Kanauj in UP,
14. **Surasena** - Mathura in UP,
15. **Vriji** - Janakpur in Nepal, and
16. **Vatsa** - Allahabad & Mirzapur in UP.



**FIG 3 - India 600 BC (Post Mahabharata War)**

Other smaller Janapadas also existed side by side with the larger Mahajanapadas viz Shakya, Kuntala, Vidharbha, Andhra, Kalinga, Ayodhya etc. All of these Janapadas issued their own distinct coins, sometimes borrowing common symbols but adding their own distinct and sometimes peculiar symbol too. The Puranas mention approx. 175 – 230 Janapadas.





The Magadha Janapada gradually rose in power by 500 BC and assimilated most of the other Janapadas through conquest, treaty or alliances and by 300 BC, India witnessed the emergence of its first major Empire under Chandragupta Maurya, a contemporary of Alexander III 'The Great' of Macedon. After the death of Alexander in 323 BC, his general Seleucus Nikator challenged the growing power of Chandragupta but later sued for peace. Chandragupta married the daughter of Seleucus and gifted him 500 war elephants in return following which Seleucus ceded all Greek held territory to Chandragupta, left India in 305 BC and established the Seleucid Empire in Syria. Chandragupta's grandson, Ashoka 'The Great' expanded the Mauryan Empire considerably but gave up warfare and converted to Buddhism following the Kalinga war. The Ashokan 'Lion Pillar' became a frontrunner to Independent India's National Symbol and the 'Dharma Chakra (wheel)' finds the central place in India's National Flag.

## The Earliest Coins of India

The earliest coins of India are in silver and called "Punch Mark Coins" (PMC). As the name denotes, various symbols were 'punched' manually and separately on the coins. The metal viz silver, in raw form was mixed with other alloys and heated in a furnace to obtain the molten metal. It was then poured on a hard surface eg a large wooden table, and allowed to cool. After cooling, the metal sheet was uniformly beaten with a hammer to get the desired thin or thick size of the coin blanks. The sheet was then cut into small pieces with the help of a clipper. Each piece so cut was then weighed on a standard weighing scale and further cut/clipped around the edges to adjust its weight to the specific weight standard. The ones within the accepted weight standard was passed on for 'stamping' or 'punching' while others below the weight standard were returned for re-melting.

A single die, comprising of small and thin long pieces of metal, the tip of which contained the engraved symbol in negative, was prepared for each symbol so that when punched on the coin blank it would appear as intended ie positive image. Multiple dies had to be prepared, one for each symbol. The die was then placed on the coin blank and received a hammer blow so that the symbol was punched on the coin surface. Either one or different person(s) applied punches of each symbol from the separate dies to get the desired number of symbols on the coin. The symbols were mostly punched around the coin edges/corners, leaving blank space in the middle, to prevent forgery, counterfeiting and dissuade the practice of clipping of small pieces of silver around the edges, thereby reducing the weight, to profit from such activity by private traders or individuals.

The 'punching' concept is similar to the system in a local post office where all the post received over the counter or dropped in the post box, affixed with stamps, is scattered on a large central wooden table and then quickly and expertly 'cancellation' punch marks are applied on the stamps on each letter with a special hand held punch-die engraved with the seal of the post office bearing its name, city, date etc. A similar practice is also observed in livestock branding where a branding iron is used for pressing a heated metal shape (symbols, numbers, color, name etc) against livestock with the intention of leaving a distinct and unique mark identifying the owner. In both the examples above, the intention is to make or leave a mark on an object ie letter and livestock respectively, by stamping, punching or pressing the die-design against the object so as to leave the impression of the design on the particular object for its ready identification and use.

Likewise, the person(s) placing the punches on the silver coin blanks were also expert in applying different punches from each different symbol type. From the plethora of available specimens, it is apparent the applier of the punches knew about the approx. area of the flan within which to apply the different punches so that all punches appeared on a single coin however most often the punch-die was bigger than the available flan area making the punches appear only partial on the flan. The practice of clipping PMC coins around the edges to adjust its weight also explains their unusual and irregular shapes ie square, rectangle, oval, elliptical, etc as weight was of paramount importance over shape, size and form of the coin itself.



It is believed the clay seals of the Indus Valley, bearing various animal symbols, may have been an early source of inspiration for the initial punch mark symbols.

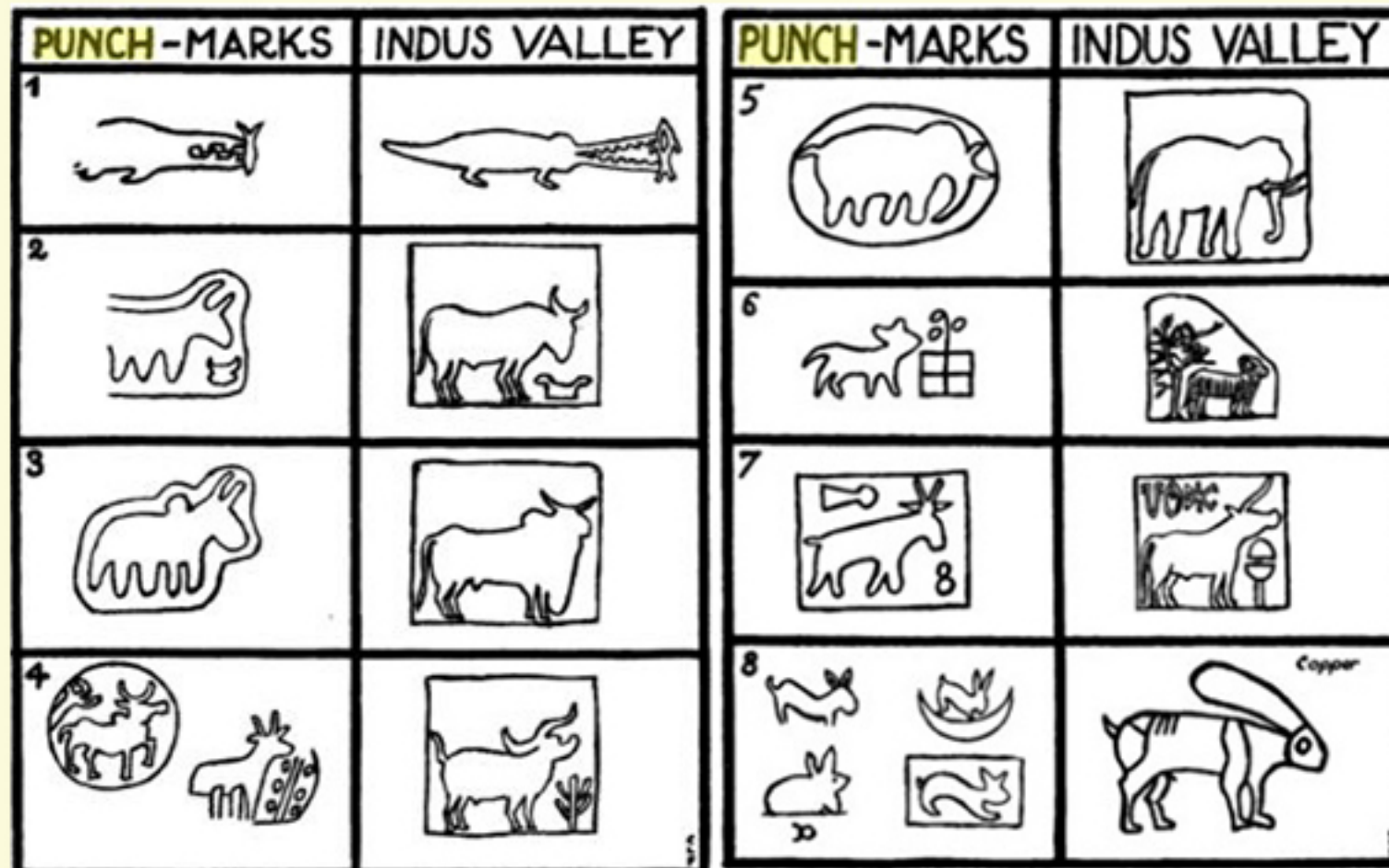


FIG 4 – Common Animal Symbols on PMCs & Indus Valley Seals

PMC have been found in their thousands scattered all over the Indian subcontinent indicating their widespread use and acceptance. They display a wonderful assortment of numerous punches that depict various symbols - nature, human, animals, plants, geometric, abstract etc. Remnants of such nature and ritual worship, and art in the form of rock-drawings, paintings, pottery, sculptor, tattoo's etc can still be found amongst the bhils and adivasi tribes in MP, Orrisa, Bihar, Chattisgarh, North-East, South India etc drawing a parallel to the continuity, and importance, of nature symbols to the indigenous population.



FIG 5 - Symbols on PMCs





Modern Indians still use such symbolism extensively viz leaves of tulsi (puja), neem (ayurveda); worship of cow and nandi-bull in temples; use of Lotus, rose, marigold, jasmine and other flowers for worship and decoration; drawing of complex geometric 'rangoli' pattern at homes during festivals; performing 'Surya-namaskar' (yoga) and 'karva-chauth' (moon); use of holy water of Ganges for various rituals of birth, marriage, death; celebration of 'nag-panchmi' (snake-festival), Jallikattu (running with the bulls); holding hills and shrines built thereupon as holy (Vaishno-devi, Tirupati) and so-on depicting continuity of an ancient tradition. That such a way of life would also be reflected in abundance in India's ancient coinage is therefore not surprising as coins reflect a miniature capsule of a nation's belief system, its cultural and religious values, popular symbols etc.

The initial PMC bore a single punch placed in the centre of the flan. When 2 punches were applied on the coin, it was placed opposite or adjacent to each other. Similarly, 4 punches of similar or different symbols were placed in a pair opposite to each other. Gradually, over time, the symbols became a standardized 5 punches under the Magadha-Mauryas, 2 of which usually feature the solar symbol, perhaps indicating royal association by the State. The prominent use of the Sun or Solar symbol is not unusual as since time immemorial, mankind and civilizations across the world has associated Sun with divine powers, source of life etc. In India, there is also a tradition amongst the warrior castes (eg Rajputs) to claim their origin as 'Surya-Vanshi' or Descendants from the Sun. The other nature symbols viz hill, river, tree, plants, animals etc is also explainable as the earliest man-farmer closely associated his identity and fortunes with the various nature symbols around him.

What has not been ascertained as yet is the meaning and significance behind placing these symbols on the coins or the particular order of placing the symbols or whether these symbols relate to a particular king, city, mint, denomination etc. In the absence of any script or legend on the PMC, these have been attributed to the various Janapadas on the basis of the nature, number and type of symbols found on the coins as these were localized to a particular area or region that were also the source for most coin hoards found in those areas. Most of the PMCs are uniface however many bear smaller counter-punches both on the front (obverse) and back (reverse) of the coin indicating marks placed as either a guarantee of the weight or authenticity by the issuer or as 'test' for the purity of the metal content (forgers existed then also!). Sometimes, the blank uniface side was re-punched with fresh symbols and the revalidated double sided punched coin issued for recirculation.

## Did You Know: Fun facts about Mahajanapadas and its PMCs

Some interesting tit-bits on Mahajanapadas and its PMCs are:

- Of the 16 Mahajanapadas, only 2 (Vajji; Malla) were Republics while others were Kingdoms
- Vajji was a confederation of 8 allied clans (atthakulaka) that included the Licchavis; Malla was divided into 2 divisions – Kusinara & Pava, both places famous being chosen death places of Buddha & Mahavir Jain, respectively.
- The 4 most powerful Mahajanapadas during the time of Buddha were Magadha, Kosala, Vatsa & Avanti
- Only 2 Mahajanapadas were located in Uttarapatha (Northern Region) viz Gandhara, Kambhoja; while all others were located in Madhyadesha (Central Gangetic Valley Region)
- Panchala Mahajanapada was segregated into Uttara (North) & Dakshina (South) part, both issuing slightly different coinage.
- Mahajanapadas that used only a single or composite symbol on their PMC include Surasena, Malla, Panchala, Kambhoja, Vajji, Avanti, Matsya, Kuru; Gandhara used a single symbol punched twice on its peculiar 'bent-bar' shape coins; Vanga issued its coin with 3 punches, while Kasi, Kosala, Ashmaka, Chedi, Vatsa used 4 punches; Magadha initially commenced its coins with a single symbol and gradually later universalized it to 5 symbols that was continued by the Mauryans.
- Coins of Gandhara follow Satamana weight standard (11g); Archaic Magadha, Kasi & Kosala of Vimshatika standard (4.0 – 5.5g) while others follow the Karshapana standard (3.3g) incl fraction's thereof.
- PMCs are broadly classified as 'Imperial Series' comprising coins issued by Magadha-Maurya, and 'Local series' comprising coins issued by other Mahajanapadas and Janapadas.



## Conclusion

The study of PMCs and deciphering its symbols represents the 'Last Frontier' in world numismatics and is as great an enigma as that of the Indus Valley script found on various seals which no one has been able to crack as yet. It is believed that whenever the mystery of the symbols on the PMCs are unlocked and its 'code' understood, it may throw a vista of information on Ancient India hitherto considered unconceivable and improbable.

## Gallery

The PMCs below highlight the coinage from circa 600-200 BC. All coins are from the personal collection of the author unless specifically indicated.

The coins are arranged as follows:

- **Section A:** Coins of the 16 Mahajanapadas
- **Section B:** Coins of the local Janapadas
- **Section C:** Coins of the Mauryan Empire

## Section A: Coins of the 16 Mahajanapadas

### 1. Magadha Mahajanapada

Magadha was located in the modern state of Bihar, with its capital originally at Rajagriha (modern Rajgir) and then at Pataliputra (modern Patna). It ultimately became the largest and most powerful of all Janapadas, eventually spawning India's first empire, the Mauryan empire. **Bimbisara & Ajattashatru** were the main Magadhan rulers. Bimbisara was murdered by his son Ajattashatru who in turn was murdered by his own son, Udayibhadda. Buddha is said to have died in the 8th year of the reign of Ajattashatru ie 483 BC.

The earliest uniface **coins** of Magadha (Series '0') bears a prominent central punch of a 6-arm solar symbol (considered the **royal** symbol) while other symbols include sun, animals, tree, geometric patterns etc. These weigh to the heavy Vimsatika standard of 5.5g. Later, Magadha PMCs became a unified series (Series '1' onwards) bearing 5-punches of which 2 symbols; the 6 arm solar & sun, remained constant, while others alternated. These weighed as per the Karshapana standard of 3.5g ( $1 \text{ Karshapana} = 32 \text{ ratti} = 0.11\text{g/ratti} \times 32 = 3.5\text{g}$ )



FIG 6

### Series "0"



FIG 7



## Series 1



FIG 8

## Later Series



FIG 9

## 2. Gandhara Mahajanapada

**Gandhara** from 'Gandh' meaning perfume indicating trade in spices and aromatic herbs, was located in north-western India, in an area stretching from Kabul in Afghanistan, through much of Pakistani and Indian Punjab. Its capital was the great city of Taxila, renowned for its size and its famous university whose teachers /students included **Vishnu Gupta** (Chanakya), **Panini** (Sanskrit scholar), **Vishnu Sharma** (author of Panchtantra stories), **Jeevaka and Charaka** (Ayurveda) etc. **Gandhari**, the wife of the blind King **Dhrithrashtra** and mother of Kauravas, was a royal princess of Gandhara. **Shakuni** was the brother of Gandhari, and hence the maternal uncle of Kuru **Duryodhana**, and considered the mastermind behind Mahabharata War.

**Coins** of Gandhara Mahajanapada are one of the earliest coins of India dated to 600-500 BC (or earlier). The coins are in the shape of cut strips of silver ingot / bars and 'bent' due to the force of the strike hence also known as 'bent bars'. They weigh approx. 11g and bear a sun or solar symbol with a septa-radiate (7-arm) symbol punched at each end with a prominent 'dot' in between. Fractional units in circular / cup shape are also known bearing the same solar symbol.

The coins are based on the 'Satamana' weight standard with 'Sata' meaning '100' and 'mana' being a unit of measure, implying the coins weigh equivalent to 100 rattis (Mana, Pav, Ser, Tola etc are weight measures still used in India today).



FIG 10



### 3. Kashi Mahajanapada

**Kashi Mahajanapada** comprised of modern Banaras district including parts of Jaunpur, Ghazipur, and Mirzapur. It was here that the legendary Mahabharata character **Bhishma** defeated all the Kings at the 'swayamwar' (ceremony where girls choose their own husbands) of the Kashi Naresh's daughters and carried away **Amba, Ambika and Ambalika** for his overlord and the ruler of Hastinapur, Vichitravirya. He received a curse from Amba as she had chosen King Shalva as her husband but after her forced abduction by Bhishma, no one would marry her. The curse came true at the battlefield when Bhishma was felled by **Arjuna** behind **Shikandi** who was Amba reincarnated. Bhishma was aware of the real identity of Shikandi and refused to fight a woman laying down his arms after which Arjuna fired a volley of arrows.

The **coins** of Kasi Mahajanapada bear a distinct motif of a complex solar whorl with multiple branches radiating outwards from the centre. They are struck to the Vimshatika standard and weigh approx. 5 – 5.5g. Kasi was constantly in conflict with Kosala and was occupied by it before both were absorbed by the powerful Magadha Empire in 475 BC. These coins are pre-Kosala conquest dated to approx. 500 BC

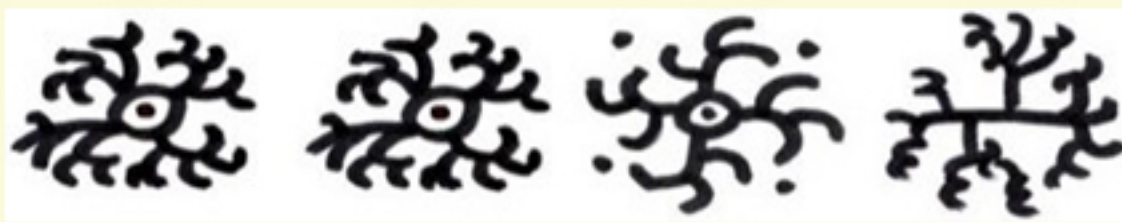


FIG 11



FIG 12

### 4. Kosala Mahajanapada

**Kosala Mahajanapada** corresponds roughly in area with the region of Awadh (Oudh) today. Its capital was Ayodhya. It was a powerful state in the 600 BC, being bigger than its adjoining Kasi Mahajanapada, but was weakened by a series of wars with the neighboring kingdom of Kasi & Magadha and was finally absorbed by Magadha in 400 BC. Kosala was the setting of much Sanskrit epic literature including the Ramayana. **Lord Ram's** mother, **Kaushalya**, was from Kosala. **Buddha** and **Mahavira**, founder of Buddhism and Jainism respectively, taught in the kingdom. Manu-smriti (Laws of Manu) was written here.

The **coins** bear a distinct curved 'S' like symbol together with other punches similar to those on the coins of its neighbouring Magadha Mahajanapada. The coins weigh approx. 3g as per karshapana standard & date to approx. 500 BC



FIG 13



## 5. Kuru Mahajanapada

The **Kuru Mahajanapada** was located around the modern city of Delhi, with its capital at Indraprastha. It was said to include a considerable area around, and to be ruled by the family of **Yudhishtira**, the head of the Pandavas in the Mahabharata. **Mahapadma Nanda** incorporated the Kuru domain into the Magadhan empire around 350 BC.

These coins are classified by Rajgor as "Babyal coins," after the town of Babyal in the state of Haryana, where coins of this type were said to have been found however, according to Mitchiner, this information is incorrect, and all known coins of these types have been found in Sugh in Ambala district. He and others have assigned them to the Kurus, and indeed the known parts of the Kuru Janpada are in any case very close to Babyal.

The **coins** bear a Triskele symbol with crescent and dots (Obv) with the Rev being blank (left) or a 6-arm symbol (right) similar to Magadha Janapada, which might depict post-Magadha conquest issues. The coins are dated to approx. 400 BC and weigh 1.4-1.8g ( $\frac{1}{2}$  Karshapana standard).



FIG 14

## 6. Matsya Mahajanapada

**Matsya or Machchha** (Sanskrit for "fish") **Mahajanapada** was located south of the Kurus, and west of the Yamuna river which separated it from the kingdom of the Panchalas. It roughly corresponded to the former state of Jaipur in Rajasthan, and included the whole of Hindaun, Alwar with portions of Bharatpur. The capital of Matsya was at Viratanagari (present-day Bairat) which is said to have been named after its founder king, Virata. In Pali literature, the Matsya tribe is usually associated with the Surasena. The western Matsya was the hill tract on the north bank of the Chambal River. The Puranas mention a fisherman becoming King as the origin for the name 'Matsya'.

In the early 6th century BC, Matsya was one of the sixteen Mahajanapadas but its power had greatly dwindled and it was of little political importance by the time of Buddha. The Mahabharata (V.74.16) refers to a King Sahaja, who ruled over both the Chedis and the Matsyas, which implies that Matsya once formed a part of the Chedi Kingdom. Other than the Matsya kingdom to the south of Kuru Kingdom, which falls in the Hindaun and Alwar, Bharatpur districts of Rajasthan, the epic refers to as many as six other Matsya kingdoms, of which possibly the Pandyas in South India could be one as they had fish as a 'lacchhana' (emblem). Upaplavya was a notable city of the Matsya kingdom.

The **coins** bear a complex & intricate geometric maze, flower, wavy lines etc in an incuse punch, weigh approx 3g (karshapana standard) and are dated to 500-400 BC. The coins are found mostly around Agra region.



(source: public auctions in India, authors coin pic blurred and not clear)

FIG 15



## 7. Panchala Mahajanapada

**Panchala Mahajanapada** was located in Uttar Pradesh, originally stretching from the Himalayas to the river Chambal. However, at some point, it was divided into two parts: Uttar (or northern) Panchala consisted of the Rohilkhand area, north of the Ganges, with its capital at Ahichhatra; Dakshina (or southern) Panchala comprised the area south of the Ganges and north of the Chambal, with its capital at Kampila, in modern Farrukhabad district. The famous city of Kanyakubja or Kannauj was situated in the kingdom of Panchala. Some time in the first half of 600 BC, Uttar Panchala was conquered by the Kurus, and only Dakshina Panchala remained independent. It was eventually absorbed into the Magadhan empire by **Mahapadma Nanda** around 350 BC. **Draupadi**, one of the central characters of the Hindu epic, the Mahabharata, and wife of the **Pandavas**, was the daughter of Panchala King **Drupada**, and called '**Panchali**'.

These **coins** date to approx. 400-350 BC, bear a composite geometric symbol of a hollow or solid circle with ancillary symbols, weigh approx. 0.3g and are usually found in Uttarakhand and Chambal valley.



FIG 16

## 8. Vatsa Mahajanapada

**Vatsa, Vaccha or Vamsa Mahajanapada** was situated in the Gangetic plain with Kausambi as its capital, now known as Kosam, a small town in Uttar Pradesh. The Puranas state that the Vatsa kingdom was named after a Kaśī king, Vatsa. The Ramayana and the Mahabharata attribute the credit of founding its capital Kauśāmbī to a Chedi prince Kuśa or Kuśāmba. The Puranas state that after the washing away of Hastinapura by the Ganges, the Bhārata king Nicakṣu, the great-great grandson of Janamejaya, abandoned the city and settled in Kauśāmbī.

In Mahabharata, Book 1, Chapter 188, Dhristadyumna describes each of the kings assembled in a letter to his sister Panchali (Draupadi): ".....the mighty charioteer Srutayu, Uluka, Kaitava, Chitrangada and Suvangada, the highly intelligent Vatsaraja (King of Vatsa Kingdom), the king of Kosala, Shishupala and the powerful Jarasandha, these and many other great kings—all Kshatriyas celebrated throughout the world—have come, O blessed one, for thee." Book 2, Chapter 29 mentions the mighty son of Kunti, Bhima, then subjugated, by sheer force, the country called Vatsa Bhumi (Vatsa Kingdom), and the king of the Bhargas, as also the ruler of the Nishadas and Manimat and numerous other kings.

**Coins** of Vatsa Janapada bear 4 punches, have a distinct wheel and scorpion symbol and weigh approx. 3.3g as per the karshapana standard. They are dated from 500 BC – 340 BC



FIG 17



## 9. Chedi Mahajanapada

The **Chedi**, **Cheti** or **Chetiya Mahajanapada** was one of many Indian kingdoms ruled during early periods by Paurava kings and later by Yadava kings. It comprised the modern Bundelkhand division of Madhya Pradesh regions to the south of river Yamuna and along the river Betwa or Vetravati. The Chedi Kingdom was ruled by **Shishupala**, an ally of **Jarasandha** of Magadha and **Duryodhana** of Kuru. The city called Sotthivatinagara (Suktimati) is mentioned as the capital of Chedi. It was one among the kingdoms chosen for spending the 13th year of exile by the **Pandavas**. Sometimes in 400 BC, the Vidarbha region (previously a part of Chedi Janapada) became independent.

The **coins** bear 4 punches, with a prominent symbol of an elephant, weigh the karshapana standard of 3.3-3.4g and date to 400-300 BC. They were found in Bargama/Bargawan, Sidhi region, Madhya Pradesh.



FIG 18

## 10. Asmaka Mahajanapada

**Assaka, Asmaka or Ashmaka Mahajanapada** was located on the banks of the Godavari river, between the rivers Godavari and Manjira. It was the only Mahajanapada situated to the south of the Vindhya Range, and was in the region commonly referred to as **Dakshina-patha**. It corresponds to districts Nizamabad and parts of Adilabad in Telangana and Nanded, Yavatmal in Maharashtra states in present-day India. The capital is variously called Potali, or Podana, present day Bodhan in Maharashtra. Ashmaka is derived from the Sanskrit word "Ashma" which means Stone or Gem, in fact one finds thousands of hillocks and stones in this region and thus it is aptly called Ashmaka (stony region).

The **coins** bear 4 punches, closely resemble issues of the neighbouring Andhra/Vidarbha Janapada, weigh approx. 1.5g ( $\frac{1}{2}$  Karshapana standard) and date to 500-350 BC. They are found mostly in Godavari valley.



FIG 19



## 11. Vrijji Mahajanapada

**Vajji or Vrijji Mahajanapada** was located north of the Ganges in the region of Mithila in Bihar and extended up to the Madhesh region. On the west, the Gandaki River was probably the boundary between Vajji and the Malla mahājanapada and possibly also separated it from the Kosala mahājanapada. On the east, its territory probably extended up to the forests along the banks of the rivers Koshi and Mahananda. The capital of this mahājanapada was **Vaishali**. During their lifetimes, both **Mahavira Jain** and **Gautama Buddha** visited Vaishali several times. Manudeva was a famous king of the Licchavi who desired **Amrapali** after he saw her dance in Vaishali. Other important towns and villages were Kundapura or Kundagrama (a suburb of Vaishali), Bhoganagara and Hatthigama.

The rulers of Vajji were a confederacy of the eight clans (atthakula) of whom the Vajjis, the Licchavis, the Jñatrikas and the Videhas were the most important. The identities of the other four clans are not certain. However, in a passage of the Sutrakritanga (Jain canonical text), the Ugras, the Bhogas, the Kauravas and the Aikshvakas are associated with the Jñatris and Licchavis as the subjects of the same ruler and the members of the same assembly.

**Coinage** of Vajji Janapada is similar to coins attributed to Shakya-Ayodhya-Licchavi Janapada, with coins find spot being Narhan in Uttar Pradesh at the Ghaghara-Gandak river valley region.

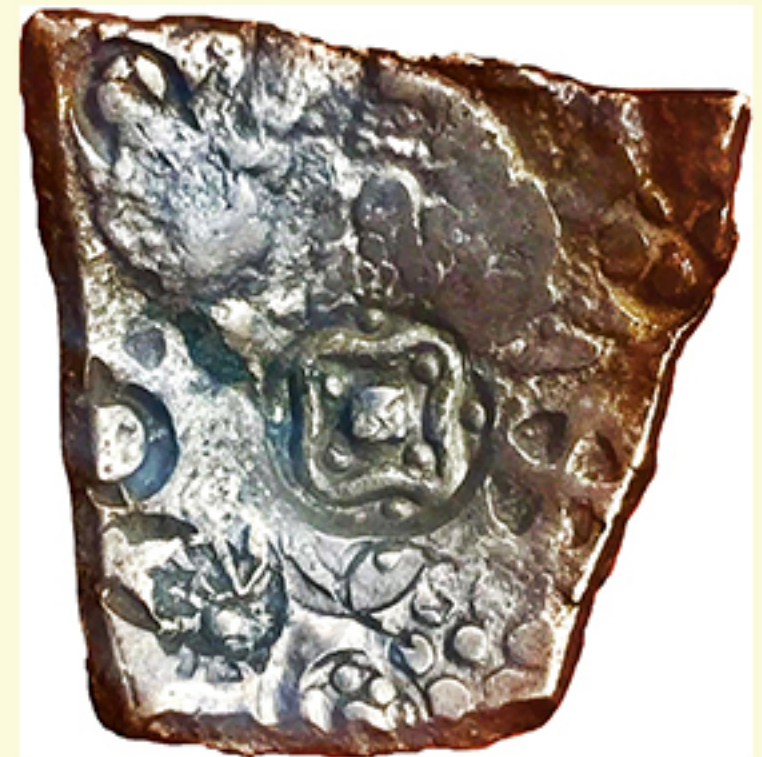


FIG 20

## 12. Malla Mahajanapada

The **Malla Mahajanapada** was situated north of Magadha. Modern Deoria and Gorakhpur district in Uttar Pradesh can be identified with this ancient Janapada. The mahajanapada was divided into two main parts and the river Kakuttha (present day Kuku) was probably the dividing line. The capital of these two parts were Kusavati (modern Kasia near Gorakhpur) and Pava, modern Fazilnagar, 12 miles from Kasia. The republic is notable for being the chosen death place of **Mahavira Jain** (Pava) and **Gautam Buddha** (Kusinara).

The Mallas were a powerful clan of eastern India at the time of Gautama Buddha and they are frequently mentioned in Buddhist and Jaina works. The Mahabharata (II.30.3) mentions that the Pandava **Bhima** is said to have conquered the chief of the Mallas in course of his expedition to eastern India. The Mahabharata (VI.9.46) mentions Mallas along with the Angas, Vangas and Kalingas as eastern tribes. The Mallas were republican people with their dominion consisting of nine territories, one of each of the nine confederated clans. The Mallas appeared to have formed alliance with Lichchhavis for self-defense. They however, lost their independence not long after Buddha's death and their dominions were annexed to the Magadhan empire. Malla-yuddha (Indian combat wrestling) originates from the warrior Malla's.

The **coins** bear a single punch, are scyphate, adhere to the Karshapana standard of 3.3g. and are dated approx 500 BC



(source: public auction in India)

FIG 21



### 13. Kambhoja Mahajanapada

**Kambhoja Mahajanapada** may have stretched from the valley of Rajauri in the south-western part of Kashmir to the Hindu Kush Range; in the south-west the borders extended probably as far as the regions of Kabul, Ghazni and Kandahar. The capital of Kamboja was probably Rajapura (modern Rajauri).

The Kambojas were famous in ancient times for their excellent breed of horses and as remarkable horsemen located in the Uttarapatha or north-west. They were constituted into military sanghas and corporations to manage their political and military affairs. The Kamboja cavalry offered their military services to other nations as well. There are numerous references to Kamboja having been requisitioned as cavalry troopers in ancient wars by outside nations. The Mahabharata also refers to them together with alliances with other tribes. They are referred to as 'Mlecchas' (barbarians) with Yavanas, Sakas, Pahlavas etc

It was on account of their supreme position in horse (Ashva) culture that the ancient Kambojas were also popularly known as Ashvakas, i.e. horsemen. Their clans in the Kunar and Swat valleys have been referred to as Assakenoi and Aspasioi in classical writings, and Ashvakayanas and Ashvayanas in Pāṇini's Ashtadhyayi.

Alexander fought some of his most bitter battles with these fiercely independent warriors during his invasion of India. The Kamboj community still survives in India using their titular heritage proudly as their family name.

The **coins** bear minute symbols, are found mostly in Swat valley of Pakistan, weigh approx 3g and are dated to 500-400 BC



(source: public auction in India)

FIG 22

### 14. Anga Mahajanapada

Mahabharata and Puranic literature attest that the name **Anga** had originated from the name of Prince Anga, the founder of the kingdom. Ramayana narrates the origin of name Anga as the place where Kamadeva was burnt to death by Siva and where his body parts (angas) are scattered.

Based on Mahabharata evidence, Angas roughly corresponded to Begusarai, Bhagalpur, Banka, Purnia, Munger, Katihar and Jamui in Bihar; Deoghar, Godda, and Sahebganj in Jharkhand; Malda and Uttar Dinajpur in Bengal. The River Champa (modern Chandan) formed the boundaries between Magadha in the west and Anga in the east. Anga was bounded by river Koshi on the north. The capital of Anga was Champa (Campā), modern Bhagalpur, noted for its wealth and commerce with traders sailing to 'Suvarna-bhumi' (S.E. Asia) for trade (Suvarnabhumi is usually associated with Siam, modern Thailand). About the middle of 600 BC, **Bimbisara**, the crown prince of Magadha killed Brahmadatta, the last independent king of Anga and seized Champa, ruling over it as his father's Viceroy. Thenceforth, Anga became an integral part of the growing Magadha empire.

The **coins** bear a distinct 'boat' symbol, weigh to ½ Karshapana standard of 1.7g and are dated from 500-200 BC. They are found mostly in the Meghna-Brahmaputra river system and at Chandraketugarh, 35 Km from Kolkata.



FIG 23



### 15. Surasena Mahajanapada

The territory of ancient **Surasena Mahajanapada** was in modern Uttar Pradesh west of the Yamuna river with the Panchala Mahajanapada as its neighbour east of that river. Its capital was Mathura. Few details are available about Surasena's political history. We only hear that Surasena's king **Avantiputra** had close relations with king **Pradyota** of Avanti who was a contemporary of Bimbisara, king of Magadha. At about 350 BC, Surasena seems to have been conquered by **Mahapadma Nanda**, King of Magadha.

The **coins** of Surasena have a very characteristic design which in most cases had been deeply incused by a single punch of round or oval shape: a lion-like animal with a fish above and some ancillary symbols around. Many varieties exist in the shape of the animals and the kind of the ancillary symbols. Sometimes the fish is exchanged by a second lion, a sun or a taurine. The exact identification of minor varieties is frequently impossible as only parts of the complete design appear on the coins because the punch was always considerably larger than the flan.

The coins are dated to 400-350 BC and weigh between 1.5-1.8g ( $\frac{1}{2}$  Karshapana standard).



FIG 24

### 16. Avanti Mahajanapada

**Avanti or Avantika Mahajanapada** was ruled by the Yadava Kings and **Krishna** and **Balram** had their education in Avanti. Avanti corresponds to the present day Malwa region, with the great city of Ujjain (also known as "Avanti") as its capital. Avanti was divided into north and south by river Vetravati (Betwa) separated by the Vindhya mountains, the northern part had its capital at Ujjayini and the southern part had its centre at Mahishmati. The two kings of Avanti - **Vinda** and **Anuvinda** - allied with the **Kauravas** in Kurukshetra War. The Kingdom remained independent until about 403 BC when it was conquered by Emperor **Shishunaga** of the Magadha Empire.

The **coins** comprise of geometric  $\Omega$ -shaped symbol surrounded by taurine symbols, semi-circles and circles. They weigh approx. 1.3g based on a 6-mashaka standard and date to 500-400 BC.



FIG 25



## Section B: Coins of local Janapadas

### 1. Andhra Janapada

**Andhra** was one of the hundreds of local Janapadas that existed in different parts of the country. The ancient region of Andhra Janapada was located between the Godavari and the Krishna rivers. The capital city was Dhanakataka, modern Bezwada. The inscriptions of Ashoka mention Andhra as one of the Mauryan territories.

The **coins** bear 4 punches, one of which is always an elephant that appears to have been the dynastic crest of the Andhra's. Another common symbol on the coins is that of a leafy tree. Interestingly, none of the coins display any imperial symbol viz the sun or 6-arm solar symbol, confirming these as local issues. They weigh approx. 1.7g ( $\frac{1}{2}$  Karshapana standard) and date to 500 BC. Due to recent find spots, coins earlier classified as Andhra are now referred to as Vidarbha Janapada.



FIG 26

### 2. Vidarbha Janapada

**Vidarbha Janapada** formed part of Chedi, one of the 16 Mahajanapadas during 600 BC, before it carved its independence around 500-400 BC. Vidharba finds mention in the Mahabharata together with its ruler, **Bhima**, and **Nala-Damyanti** who were Bhima's son-in-law and daughter, respectively. These coins are also referred to as Wainganga / Painganga type referring to the River Basin or River Valley area of the same name in Eastern Maharashtra southwest to Nagpur, where these coins were unearthed. Modern Vidarbha comprises of Nagpur and Amravati in Eastern Maharashtra.

The **coins** comprise of 4 punches of which 2 remain the same (placed opposite to each other) with the other 2 symbols being different, one of which is always an elephant. Coins weigh 1.7g ( $\frac{1}{2}$  Karshapana standard) and are dated to 400 BC



FIG 27



### 3. Shakya Janapada

The **Shakya Janapada** was located in northern India and (present-day) Nepal, and are attested from Buddhist scriptures. The name Śākya is derived from the Sanskrit word śākya, which means "the one who is capable".

The Shakyas formed an independent republican state known as the Śākya Gaṇarājya. The Shakya capital was Kapilavastu, which may have been located either in Tilaurakot, Nepal or Piprahwa, India. The best-known Shakya was the prince **Siddhartha** (5th century BC), who was the founder of Buddhism and came to be known as **Gautama Buddha**, and also as 'Sakya-muni' (Sage of the Sakya's). Siddhartha was the son of Śuddhodana, the elected leader of Shakya Republic. Virudhaka, son of Pasenadi and Vāsavakhattiyā, the daughter of a Shakya named Mahānāma by a slave girl, ascended the throne of Kosala after overthrowing his father. As an act of vengeance for cheating Kosala by sending his mother, the daughter of a slave woman, for marriage to his father, he invaded the Shakya territory, massacred them and annexed it.

These **coins** are characterized by a deep central incuse punch comprising a pentagon with ancillary bankers marks around them. The coins are scyphate, weigh approx. 6-7g and date to 600-500 BC. They are also similar to Vajji coins.



FIG 28

### 4. Kuntala Janapada

The **Kuntala Janapada** was located in southern Maharashtra and northern Karnataka state. One of the titles used by the Satavahanas Kings was 'Kuntalapati' or 'Lord of the Kuntala (region)'.

The uniface Kuntala PMC has a most unusual design, still not deciphered as to its meaning, resembling a system of pulleys, with or without a triskelis symbol in between the pulleys. The force of the strike gives the coins a wax like impression along the edges and a scyphate shape.

The **coins** are known in standard and fractional denominations with a double karshapana being the most common unit weighing approx. between 6-7g. The coins are dated to approx. 500 BC.



FIG 29



## 5. Saurashtra Janapada

The **Saurashtra Janapada** was located in modern Saurashtra, in the state of Gujarat. It is mentioned in both the Ramayana and the Mahabharata. Indeed, the city of Dwarka, where Lord Krishna ruled, is in northern Saurashtra, although the Saurashtra janapada may have been located only in the southern part of the peninsula. Most Saurashtra coins are found in the south, in Junagadh district.

Most **coins** from Saurashtra are approximately 1 gm in weight. The coins are uniface however most are overstruck /restruck with the same or different symbol, sometimes more than several times, over other Saurashtra coins and thus there is often the remnant of a previous symbol on the reverse, as well as sometimes under the obverse symbol as well. The symbols include animals (bull, elephant etc), goddess (Laxmi) and the mangalam (auspicious) 'Srivatsa' symbol. They date to approx 450 BC



FIG 30

## 6. Kalinga Janapada

**Kalinga Janapada** was an ancient kingdom of Eastern India. **Duryodhana** eloped with the daughter of Kalinga king Chitrangada of Rajapura and married her. Kalinga King Shrutāyudha or Shrutāyush (probably, from the city of Dantapura) participated in the Mahabharata war in support of Kauravas but was killed by Bhima. Kalinga was only a Janapada during Mahabharata period, probably, part of Ashmaka Mahajanapada. It appears that Kalinga became Mahajanapada only later by 500 BC. The Mauryan's under **Ashoka** managed to subdue Kalinga during 260 BC with the war influencing Ashoka to repent for the carnage and destruction caused and ended with him adopting the Buddhist dharma.

**Kharavela** was the greatest king of Kalinga and the earliest known king of Kalinga from epigraphic sources. He was the author of the famous Hathigumpha inscription and constantly fought the Mauryas.

The **coins** of Kalinga bear a candelabrum as its distinguishing feature with sometimes a scorpion. They bear 4 punches, are struck to the karshapana standard weighing approx. 3g and dated 500-260 BC



FIG 31



## 7. 'Anonymous' or 'Whorl' Janapada

These enigmatic PMCs present the latest and most recent of new discoveries being found in 2013 though the exact find spot remains unknown. They are wide flan (approx 30mm) but of thin fabric, known in square and round shape, often chipped, bear 4 symbols of intricate curves and whorls on the Obverse and carry numerous bankers mark on the Reverse carefully placed along the edges.

Given their standard weight range of 4.3-4.5g corresponding to the 'Vimshatika' weight standard, thin brittle fabric and wide flan, and use of simple geometric patterns for punches, it indicates these are early issues contemporary with the archaic types issued by Magadha (Series 'O'), Kosala, Kasi etc and hence placed within 550-500 BC. They are sometimes classified as archaic Panchala, Kosala or Matsya issues.



FIG 32



FIG 33

## Section C: Coins of the Mauryan Empire

The Mauryan monetary economy was chiefly comprised of silver **karshapana's** and copper **kakani's**.

The silver coins bear standard 5 punches, continuation of the Magadha type, but of smaller size and dumpier. Some coins feature the earliest iconographic representation of **humans or deities** on Indian coins viz the '3-deity' type or standing Shiva holding kamandla (holy water-pot) with the Rev bearing what is popularly considered as King Ashoka's signet ie a bale-mark or caduceus symbol comprising 3 ovals crossed by a line joined together.

The Mauryan Empire fragmented rapidly post Ashoka's death.



FIG 34



FIG 35



FIG 36





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## About the author



Mitresh Singh (mitreshsingh@gmail.com) is an experienced GARC (Governance, Audit, Risk, Compliance) professional with 25+ years' experience in MNC banks, Financial Institutions, Investment Organizations, Ministries and Diversified Business Conglomerates. He is a professional CA, merit-listed CPA (USA) and is the founder member of Institute of Internal Auditors – UAE & Qatar. He is passionate about Indian coins, culture and heritage.



# The License Raj

( Radio & TV Licenses )  
- Kshitiz Vishnoi

Numismatics has long been recognized not only as a hobby and an investment but also as a scholarly discipline of considerable value to the general historian. Philately, in contrast, has never been regarded as a scholarly discipline. A philatelist spends hours cataloguing minor printing variations on particular issues.

From a bulky box at the center of family life to a gizmo for the First Generation, the radio size has shrunk in size. The memories haven't.

The bulky radios of the 1960's that came with valves, aerial wiring and earthing and took long minutes to warm up before the first cackle came through are now the stuff of reminiscences and mostly a Murphy.

The early days of broadcasting presented broadcasters with the problem of how to raise funding for their services. Some countries adopted the advertising model, but many others adopted a compulsory public subscription model, with the subscription coming in the form of a broadcast license paid by households owning a radio set (and later, a TV set).

The UK was the first country to adopt the compulsory public subscription model with the license fee money going to the BBC, which was formed on 1 January 1927 by Royal Charter to produce publicly funded programming yet remain independent from government, both managerially and financially. The license was originally known as a **wireless license**.

With the arrival of television some countries created a separate additional television license, while others simply increased the radio license fee to cover the additional cost of TV broadcasting, changing the license's name from "radio license" to "TV license" or "receiver license". Today most countries fund public radio broadcasting from the same license fee that is used for television, although a few still have separate radio licenses, or apply a lower or no fee at all for consumers who only have a radio. Some countries also have different fees for users with color or monochrome TV. Many give discounts, or charge no fee, for elderly and/or disabled consumers.

A **television license or broadcast receiving license** is an official record of payment required in many countries for the reception of television broadcasts, or the possession of a television set where some broadcasts are funded in full or in part by the license fee paid. The license is sometimes also required to own a radio or receive radio broadcasts. A TV license is therefore effectively a hypothecated tax (dedication of the revenue from a specific tax for a particular expenditure purpose) for the purpose of funding public broadcasting, thus allowing public broadcasters to transmit television programs without, or with only supplemental, funding from radio and television advertisements. However, in some cases the balance between public funding and advertisements is the opposite - the Polish TVP broadcaster receives more funds from advertisements than from its TV tax.



Radio & Television Booklet Covers



India introduced a radio receiver license system in 1928, for All India Radio Aakaashvani. With the advent of television broadcasting in 1956-57, television was also licensed. With the spurt in television stations beginning 1971-72, a separate broadcasting company, Doordarshan, was formed. The radio & TV licenses in question needed to be renewed at the post offices on a yearly basis. In 1984, the licensing system was withdrawn with both of the Indian national public broadcasters, AIR and Doordarshan, funded instead by the Government of India and by advertising. The Licence Raj was a result of the Nehru government's decision to have a planned economy where all aspects of the economy are controlled by the state and licences are given to a select few.

The license fee were of Rs 15 for a new one and Rs 3 for renewal every year. An additional radio in the same premises means another Rs. 3 as fees.



Radio & Television Booklet





India has been a heavy user of revenue stamps, both before and after independence. The yearly fee stamps (Broadcast Receiver License Fee stamps) were available in nearby post office. Annual premium for radio was Rs.15 and for TV was Rs. 50 in the 1970s and 1980s. The license had to be renewed every year, standing in queue and paying stamp duty at the post office. This license book is now a collector's delight.

Rate of License fee						
Sr. No.		1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter	4 <sup>th</sup> Quarter	
1	Radio Domestic	15	11	7.50	4	
2	Radio Concessional	7.50	6	4	2	
3	TV Domestic	30	22.50	15	7.50	
4	TV School	10	7.50	5	3	
If license is taken for						
		One year	Two year	Three year	Four year	Five year
1	Radio Domestic	15	30	42	54	66
2	Radio Concessional	7.50	15	21	27	33

Fee for each additional radio was Rs 3/-

The BRL Fee stamps were available in various varieties:



(50 paise)



(50 paise)



(Rs. 1)



(Rs. 2)



(Rs. 3)



(Rs. 5)



(Rs. 7.50)



(Rs. 10)



(Rs. 15)



(Rs. 30)



(Rs. 50)





Funding through advertisements of Coca cola.  
“Nothing can refresh you like bright Coca-Cola”



Advertisements of Punjab National Bank.



Advertisements of Bharat Electronics Ltd. (BEL)

For the next generation who haven't seen Murphy radio and never know that a license was needed. Yes, the license raj did exist then. Later on it was removed with time.

I was told by my Late Grandfather & my Father about the radio purchased in 1964 of Pye brand and a TV set purchased in 1980, used to pay license charges yearly till it abolished by the Govt of India. This is a very short article for those who are not aware of it or may not believe about the License Raj.





# Events - Exhibitions & Auctions

## Events List 2018-19



### *The 101<sup>st</sup> Conference of the Numismatic Society of India And a Plenary session of the Indian Coin Society*

*South Lounge, Centre 1 Building, Ground Floor, World Trade Centre,*

*Cuffe Parade Mumbai 400005*

*30<sup>th</sup> August - 2<sup>nd</sup> September, 2018*

*Hosted by the Mumbai Coin Society*



*30<sup>th</sup> August 2018: 10 am Inauguration*

*12 pm Plenary Session*

*3 pm Visit to Reserve Bank Monetary Museum*

*4 pm Visit to Prince of Wales Museum*

*31<sup>st</sup> August & 1<sup>st</sup> September 2018: 10 am to 5.30 pm Paper Reading.*

*2<sup>nd</sup> September Optional Excursion*

*A Conference on Coinage of Western India will be held during the sessions. Please send your research papers to the local secretary. Your paper should reach us by the 16th of August at the latest.*

*A delegation fee of Rs. 1,000 per person will be charged for attending the sessions. A kit, lunch and tea for all three days will be included in the fees. No stay has been included. There are several nearby hotels, which we recommend you to book in advance to avail best prices. Some of the hotels close to the venue are :*

*Hotel Supreme, 4 Panday Road, Opposite Hotel President, Cuffe Parade, Mumbai. Tel: 022-61552300.*

*Hotel Fortune Inn, Shahid Bhagat Singh Road, Seaview Building, 2<sup>nd</sup> Floor, Woodhouse Road, Colaba, Mumbai. Tel : 089211 12308.*

*Hotel Landmark Fort, Plot no - 249, Near GPO, Fort, Mumbai. Tel: 022-30222300, 65022222.*

*(Dormitory) - Narasimha Lodge, 177/ 179, Dev Krupa Building, Dr D N Road, Fort, Mumbai.*

*Tel: 022-22612604.*

*A separate exhibition cum Coin show will be held concurrently at the main World Trade Centre building. An excursion to Kanheri caves will be organized for interested persons on cost sharing basis for the 2<sup>nd</sup> of September. Interested persons are requested to inform us latest by 30<sup>th</sup> August to work out the logistics of the trip.*

*Please send your registration fees to: Mumbai Coin Society, Central Bank of India, A/c no, 3048464682, Boribunder Branch Fort Mumbai. RTGS CODE: CBIN0280606. Please communicate your attendance and or submission of research paper by what's app at 78880 35919 or by email at prashantkulkarni1717@gmail.com. We would appreciate if you could send us proof of deposit of your registration fees by what's app or email provided above.*

*A Conference Medal will be available on Sale at Rs. 2,000/-*

*Farokh Todywalla  
Joint Local Secretary, NSI  
President Mumbai  
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Trustee Indian Coin Society*

*Girish Veera  
Chief Co-ordinator*

*Malcolm Todywalla  
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#### Sponsors



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## Events - Exhibitions & Auctions

### Events List 2018-19

#### **MCS 16th Annual Coin, Banknote & Philately Fair - 2018**

**Date :** 31st Aug to 2nd Sep

**Venue :** World Trade Centre, Mumbai

**Contact :**

Amit Surana - 981 938 1833

#### **Mudra Utsav – 2018**

**Date :** Dec – 21st, 22nd, & 23rd

**Venue :** Haldiram ballygunge, Kolkata, West Bengal

**Contact :**

Ravi Sharma – 905 107 0786 / Manish - 705 943 4383

#### **NAGMONEY 2019**

**Date :** 25, 26 & 27 January 2019

**Venue :** Ramgopal Maheshwari Hall, Sitabuldi, Nagpur

**Contact :**

Piyush Agarwal 9822220826

Sanjay Misra 9373104980

#### **International Collector's Society of Rare Items Pune is organizing a 3 Day Grand Exhibition - Coinex-pune-2018**

**Date :** Dec – 14th, 15th, & 16th

**Venue :** Sonal Hall, Karve Road, Pune

**Auctions :**

14th Dec : Inauguration . 10am

14th Dec : CNG Auction. 5pm

15th Dec : Imperial Auction. 11 am

15th Dec : Oswal Coins Auction. 5 pm

16th Dec : Todywalla Auction. 11am

#### **Chennai Numismatic & Philatelic Society For The First Time In International Style Organises-2018**

**Date :** Oct – 5th, 6th, & 7th

**Venue :** Hotel Abu Sarovar Portico, Chennai

**Contact :**

Anand Bohra 9884791047

Kapil Tejuja 9884513686





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- **Which articles are accepted and published in the newsletter?**
  - Articles on Coins, Banknotes, Stamps, Medals, Tokens,
  - News about launch of new books, bookings of Republic India UNC & Proof sets,
  - Forgeries,
  - Lost or robbed coins, stamps, banknotes,
  - News about Events: Exhibitions & Auctions in India.
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