Iron tools and agriculture We often take the use of iron for granted today.

Things made of iron (and steel) are a part of our daily lives. The use of iron began in the subcontinent around 3000 years ago. Some of the largest collections of iron tools and weapons were found in the megalithic burials, about which you read in Chapter 4.

Around 2500 years ago, there is evidence for the growing use of iron tools. These included axes for clearing forests, and the iron ploughshare. As we had seen (Chapter 5), the ploughshare was useful for increasing agricultural production.

Other steps to increase production: irrigation

The kings and kingdoms you have been reading about could not have existed without the support of flourishing villages. While new tools and the system of transplantation (Chapter 5) increased production, irrigation was also used. Irrigation works that were built during this time included canals, wells, tanks, and artificial lakes.

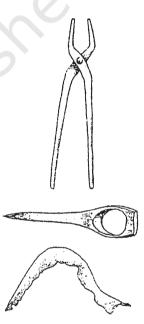
Rationalised 2023-24

CHAPTER 8 VILLAGES, TOWNS AND TRADE

Prabhakar at the blacksmith's shop

Prabhakar sat watching the smiths at the local shop. There was a small bench on which iron tools like axes and sickles were laid out, ready for sale. A bright fire was burning, and two men were heating and beating metal rods into shape. It was very hot and noisy, and yet it was fascinating to watch what was happening.

DS4CH08



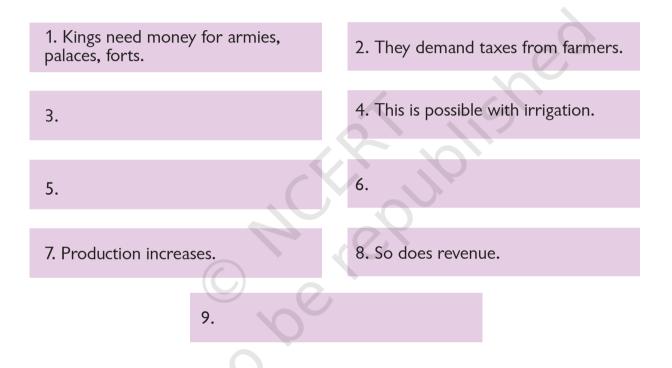
Iron tools. Here is a set of captions. Choose the right one for each of the pictures. Sickle, tongs, axe. Prepare a list of at least five objects made of iron or steel that you use almost everyday.

73 🗖

If you look at the chart, you will find that some of the stages in the construction of irrigation works are mentioned.

Fill in the rest by using the following phrases:

- Labour is provided by the people.
- Farmers also benefit because crop production is more certain.
- Farmers have to increase production to pay taxes.
- Kings provide money and plan irrigation works.



Who lived in the villages?

There were at least three different kinds of people living in most villages in the southern and northern parts of the subcontinent. In the Tamil region, large landowners were known as *vellalar*, ordinary ploughmen were known as *uzhavar*, and landless labourers, including slaves, were known as *kadaisiyar* and *adimai*.

OUR PASTS-I

In the northern part of the country, the village headman was known as the grama bhojaka. Usually, men from the same family held the position for generations. In other words, the post was hereditary. The grama bhojaka was often the largest landowner. Generally, he had slaves and hired workers to cultivate the land. Besides, as he was powerful, the king often used him to collect taxes from the village. He also functioned as a judge, and sometimes as a policeman.

Apart from the *grama bhojaka*, there were other independent farmers, known as *grihapatis*, most of whom were smaller landowners. And then there were men and women such as the *dasa karmakara*, who did not own land, and had to earn a living working on the fields owned by others.

In most villages there were also some craftspersons such as the blacksmith, potter, carpenter and weaver.

The earliest Tamil compositions

Some of the earliest works in Tamil, known as *Sangam* literature, were composed around 2300 years ago. These texts were called *Sangam* because they were supposed to have been composed and compiled in assemblies (known as *sangams*) of poets that were held in the city of Madurai (see Map 7, page 87). The Tamil terms mentioned above are found in *Sangam* literature.

Coins

Archaeologists have found several thousands of coins belonging to this period. The earliest coins which were in use for about 500 years were punch-marked coins, such as the one shown here.



Punch-marked Coins

Punch-marked coins were generally rectangular or sometimes square or round in shape, either cut out of metal sheets or made out of flattened metal globules (a small spherical body). The coins were not inscribed, but were stamped with symbols using dies or punches. Hence, they are called punch-marked coins. These coins are found over most parts of the subcontinent and remained in circulation till the early centuries CE.

Other means of exchange

Read this short poem from the Sangam collection:

As they carry the white paddy of their land To exchange it for the salt of another, Crossing the long roads in carts, Through sands white as moonlight, Taking whole families, Who hate to be left behind, The departure of the salt merchants Leaves the city empty.

Salt was produced plentifully along the sea coast. What are the merchants planning to exchange it with?

How are they travelling?

Cities with many functions

Very often, a single town was important for a variety of reasons. Let us look at the example of Mathura (Map 7, page 87).

Mathura has been an important settlement for more than 2500 years. It was important because it was located at the cross roads of two major routes of travel and trade — from the northwest to the east and from north to south. There were fortifications around the city, and several shrines. Farmers and herders from adjoining areas provided food for

OUR PASTS-I

76

people in the city. Mathura was also a centre where some extremely fine sculpture was produced.

Around 2000 years ago, Mathura became the second capital of the Kushanas, about whom you would read. Mathura was also a religious centre there were Buddhist monasteries, Jaina shrines, and it was an important centre for the worship of Krishna.

Several inscriptions on surfaces such as stone slabs and statues have been found in Mathura. Generally, these are short inscriptions, recording gifts made by men (and sometimes women) to monasteries and shrines. These were made by kings and queens, officers, merchants, and craftspersons who lived in the city. For instance, inscriptions from Mathura mention goldsmiths, blacksmiths, weavers, basket makers, garland makers, perfumers.

Make a list of the occupations of people who lived in Mathura. List one occupation that was not practised in Harappan cities.

Crafts and craftspersons

We also have archaeological evidence for crafts. These include extremely fine pottery, known as the Northern Black Polished Ware (NBPW). It gets its name from the fact that it is generally found in the northern part of the subcontinent.

Remember that the archaeological evidence for many crafts may not have survived. We know from texts that the manufacture of cloth was important. There were famous centres such as Varanasi in the north, and Madurai in the south. Both men and women worked in these centres.

Northern Black Polished Ware (NBPW)

NBPW is a hard, wheel made, metallic looking ware with a shiny black surface. The potter used to expose the earthenware to very high temperature in his kiln which resulted in the blackening of its outer surface. A fine black slip was also applied on this, which gave the pottery a mirror-like shine.

77

Rules for spinning and weaving

These rules are from the *Arthashastra*, mentioned in Chapter 7. They describe how spinning and weaving could be done in workshops under the supervision of a special official.

"Widows, young women who are differently abled, nuns, mothers of courtesans, retired women servants of the king, women who have retired from service in temples, may be used for processing wool, bark, cotton, hemp and flax.

They should be paid according to the quality and quantity of work.

Women who are not permitted to leave their homes can send maidservants to bring the raw material from the superintendent, and take the finished work back to him.

Women who can visit the workshop should go at dawn to give their work and receive their wages. There should be enough light to examine the work. In case the superintendent looks at the woman or talks about anything other than the work, he should be punished.

If a woman does not complete her work, she will have to pay a fine, and her thumbs can be cut off."

Make a list of all the women who could be employed by the superintendent. Do you think women would have faced any problems while working?

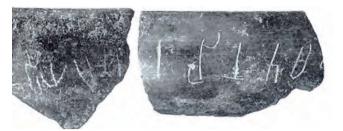
> Many craftspersons and merchants now formed associations known as *shrenis*. These *shrenis* of craftspersons provided training, procured raw material, and distributed the finished product. Then *shrenis* of merchants organised the trade. *Shrenis* also served as banks, where rich men and women deposited money. This was invested, and part of the interest was returned or used to support religious institutions such as monasteries.

A closer look – Arikamedu

Find Arikamedu (in Puducherry) on Map 7 (page 87). Between 2200 and 1900 years ago, Arikamedu was a coastal settlement where ships unloaded goods from distant lands. A massive brick structure, which may have been a warehouse,

OUR PASTS-I

was found at the site. Other finds include pottery from the Mediterranean region, such as amphorae (tall double-handled jars that contained liquids such as wine or oil) and stamped red-



glazed pottery, known as Arretine Ware, which was named after a city in Italy. This was made by pressing wet clay into a stamped mould. There was yet another kind of pottery which was made locally, though Roman designs were used. Roman lamps, glassware and gems have also been found at the site.

Small tanks have been found that were probably dyeing vats, used to dye cloth. There is plenty of evidence for the making of beads from semi-precious stones and glass.

List the evidence that indicates that there was contact with Rome.

Tamil-Brahmi inscriptions. Several pieces of pottery have inscriptions in Brahmi, which was used to write Tamil.

An Account by a Greek Sailor The Story of Barygaza (the Greek name for Bharuch)

The gulf is very narrow at Barygaza, and very hard to navigate for those coming from the sea.

Ships had to be steered in by skilful and experienced local fishermen who were employed by the king.

The imports into Barygaza were wine, copper, tin, lead, coral, topaz, cloth, gold and silver coins.

Exports from the town included plants from the Himalayas, ivory, agate, carnelian, cotton, silk and perfumes.

Special gifts were brought by merchants for the king. These included vessels of silver, singing boys, beautiful women, fine wines and fine cloth.

Make a list of all the things imported and exported from Barygaza. Underline at least two things that were not in use during Harappan times. Why do you think merchants brought gifts for the king?

79 🗖

Trade and traders

You have read about the Northern Black Polished Ware. This fine pottery, especially bowls and plates, were found from several archaeological sites throughout the subcontinent. How do you think it reached these places? Traders may have carried them from the places where they were made, to sell them at other places.

South India was famous for gold, spices, especially pepper, and precious stones. Pepper was particularly valued in the Roman Empire, so much so that it was known as black gold. So, traders carried many of these goods to Rome in ships, across the sea, and by land in caravans. There must have been quite a lot of trade as many Roman gold coins have been found in south India.

Can you think of how and why these reached India?

A poem about trade

We can find evidence of trade in the Sangam poems.

Here is one which describes the goods brought into Puhar, an important port on the east coast:

"(Here are brought)

Swift, prancing horses by sea in ships,

Bales of black pepper in carts,

Gems and gold born in the Himalayas,

Sandalwood born in the western hills,

The pearls of the southern seas

And corals from the eastern oceans

The yield of the Ganga and the crops from the Kaveri,

Foodstuffs from Sri Lanka, pottery from Myanmar,

And other rare and rich imports."

Make a list of all the things that are mentioned. What would they be used for?

■ 80 OUR PASTS-I Traders explored several sea routes. Some of these followed the coasts. There were others across the Arabian Sea and the Bay of Bengal, where sailors took advantage of the monsoon winds to cross the seas more quickly. So, if they wanted to reach the western coast of the subcontinent from East Africa or Arabia, they chose to sail with the south-west monsoon. And sturdy ships had to be built for these long journeys.

New kingdoms along the coasts

The southern half of the subcontinent is marked by a long coastline, and with hills, plateaus, and river valleys. Amongst the river valleys, that of the Kaveri is the most fertile. Chiefs and kings who controlled the river valleys and the coasts became rich and powerful. *Sangam* poems mention the *muvendar*. This is a Tamil word meaning three chiefs, used for the heads of three ruling families, the Cholas, Cheras, and Pandyas (see Map 7, page 87), who became powerful in south India around 2300 years ago.

Each of the three chiefs had two centres of power: one inland, and one on the coast. Of these six cities, two were very important: Puhar or Kaveripattinam, the port of the Cholas, and Madurai, the capital of the Pandyas.

The chiefs did not collect regular taxes. Instead, they demanded and received gifts from the people. They also went on military expeditions, and collected tribute from neighbouring areas. They kept some of the wealth and distributed the rest amongst their supporters, including members of their family, soldiers, and poets. Many poets whose compositions are found in the *Sangam* collection composed poems in praise of chiefs who often

81

rewarded them with precious stones, gold, horses, elephants, chariots, and fine cloth.

Around 200 years later, a dynasty known as the Satavahanas became powerful in western India (see Map 7, page 87). The most important ruler of the Satavahanas was Gautamiputra Shri Satakarni. We know about him from an inscription composed on behalf of his mother, Gautami Balashri. He and other Satavahana rulers were known as lords of the *dakshinapatha*, literally the route leading to the south, which was also used as a name for the entire southern region. He sent his army to the eastern, western and southern coasts.

Why do you think he wanted to control the coasts?

Silk Route and the Kushanas

Some kings tried to control large portions of the route. This was because they could benefit from taxes, tributes and gifts that were brought by traders travelling along the route. In return, they often protected the traders who passed through their kingdoms from attacks by robbers.

The best-known of the rulers who controlled the Silk Route were the Kushanas, who ruled over central Asia and north-west India around 2000 years ago. Their two major centres of power were Peshawar and Mathura. Taxila was also included in their kingdom. During their rule, a branch of the Silk Route extended from Central Asia down to the seaports at the mouth of the river Indus, from where silk was shipped westwards to the Roman Empire.

■ 82 OUR PASTS—I

Imagine

You live in Barygaza and are visiting the port. Describe what you would see there.

Let's recall

- 1. Fill in the blanks:
 - (a) _____ was a word used for large landowners in Tamil.
 - (b) The *gramabhojaka* often got his land cultivated by the _____
 - (c) Ploughmen were known as _____ in Tamil.
 - (d) Most grihapatis were _____ landowners.
- 2. Describe the functions of the *gramabhojaka*. Why do you think he was powerful?
- 3. List the craftspersons who would have been present in both villages and cities.
- 4. Choose the correct answer:
 - (a) Punch marked coins were made of:
 - 1. silver
 - 2. gold
 - 3. tin
 - 4. ivory
 - (b) Mathura was an important:
 - 1. village
 - 2. port
 - 3. religious centre
 - 4. forested area
 - (c) Shrenis were associations of:
 - 1. rulers
 - 2. craftspersons
 - 3. farmers
 - 4. herders
- 5. What kinds of evidence do historians use to find out about trade and trade routes?



KEYWORDS iron irrigation port Sangam shreni silk route trader

SOME IMPORTANT

- Beginning of the use of iron in the subcontinent (about 3000 years ago)
- Increase in the use of iron, cities, punchmarked coins (about 2500 years ago)
- Beginning of the composition of Sangam literature (about 2300 years ago)
- Settlement in Arikamedu (between 2200 and 1900 years ago)

83 🗖

SOME IMPORTANT

- Discovery of silk making (about 7000 years ago)
- The Cholas, Cheras and Pandyas (about 2300 years ago)
- Growing demand for silk in the Roman Empire (about 2000 years ago)
- Kanishka, the Kushana ruler (about 1900 years ago)
- Fa Xian comes to India (about 1600 years ago)
- Xuan Zang comes to India, Appar composes devotional poems in praise of Shiva (about 1400 years ago)

Let's discuss



- 5. Which of the iron tools shown on page 73 would have been important for agriculture? What would the other tools have been used for?
- 6. Compare the drainage system in your locality with that of the cities mentioned in the lesson. What similarities and differences do you notice?

Let's do



- 7. If you have seen craftspersons at work, describe in a short paragraph what they do. (Hint: how do they get the raw materials, what kind of equipment do they use, how do they work, what happens to the finished product).
- 8. List the functions performed by men and women who live in your city or village. In what ways are these similar to those performed by people who lived in Mathura? In what ways are they different?
- 9. List five things that you buy from the market. Which of these are made in the city/village in which you live, and which are brought by traders from other areas?

■ 84 OUR PASTS—I