

INDUSTRIAL DEVELOPMENT IN VIJAYANAGARA EMPIRE

Dr.R.PALKKANNAN
Assistant Professor of History
Directorate of Distance Education
Annamalai University, Annamalainagar

Abstract

Vijayanagara Rulers created new vistas in South India under the aegis of a great Ruler Sri Krishna Devaraya. The age of Krishna Raya was a great epoch in medieval south India History. The prosperity of Vijayanagar Empire was due to the growth of agriculture, Industries, Trade and Commerce. The state followed a wise irrigation policy and Industries were also encouraged by the state commerce was in land, coastal and overseas. Calicut was the most important port on the Malabar coast.

Keywords: Iron, Trade, Cloth, Sugarcane, Spices, Gold.

Introduction

Vijayanagara Empire occupies a prominent place in the study of Medieval Indian History. The formation of the Vijayanagara Empire took place in the mid fourteenth century, at a time when there was no single predominant power or competitive empire or state to lay claim to the territorial or imperial power in South India.

In South India, as in North India, different industries flourished stimulated by the demand for various articles. However, certain industries grew more rapidly in North India, and certain others in South India, owing to the differences in the climatic conditions and the availability of raw materials. For example, the textiles, especially woollen and silk textiles, were in greater demand in North India leading to a greater development of these industries whereas in South India the diamond mining industry was flourishing greatly because of the availability of the natural resources. The people used the minimum clothing because of the hot climate.

A number of foreign travellers such as Abdul Ryzzak, Nicolo dei Conti, Varthema, Barbosa, and Thevenot give us to understand that there was little internal need for clothing, lesser still for warm clothing. Yet because of the external demand for cotton stuffs of this area, some centres of textile industry grew up here also. Goa, Chaul, Mysore, Malabar, Mutfili in Andhra-desa, Kanpamei near Calicut, Pulicat, and Budihal in the Chitradurga region, were the important centres of cotton textiles. Different kinds of cotton stuffs such as calicoes, turbans, muslins, buckrams, and muslin cloaks were manufactured in these centres. According to Mahuan, Kanpamei (Coimbatore) near Calicut produced a stuff called chihli cloth. Its price was said to have been 8 or 10 gold pieces or varahas. Pulicat enjoyed repute for its printed cotton textiles similar to the chintz of North India.

Besides cotton stuffs, there were other fabrics made of such materials as flax, velvet, satin and coconut fibres. Mahuan says that at and near Coimbatore dyed silk garments were manufactured. First raw

silk was produced, and dyed in different colours. It was then woven into cloth decorated with patterns of flowers, after which it was cut into pieces measuring about five feet in width and thirteen feet in length. These pieces were so costly that they were sold for 100 varahas or gold coins per piece of cloth. Barbosa speaks of the manufacture of velvets, satin, skills and carpets on the Western Coast. Nuniz makes a reference to the manufacture of flax cloth in the region of Budihal (Bodial). Finally we learn from Marignolli that coconut fibres also were employed for making cloth. Chaul in the Deccan and Parasuram Perunteru in the Far South were known for the dyeing industry. At Masulipatam on the Coromundel coast chintz (chites) was produced.

Among metals, gold, silver, copper and iron were principally employed in manufacturing various articles of use and luxury. We are given to understand by Gribble that the gold deposits were available in the Deccan from Mysore to the Aurangabad area. In Mysore some of the mines had to be dug very deep, and after a point the work had to be discontinued owing to the crude mechanical appliances. There were also no proper pumps so essential in mining. The art of shifting gold from ore was not well developed. Moreover extracting the ore by manual labour only, without the modern mechanical devices, entailed exorbitant and prohibitive expenses. These gold mines are, however, said to have ranked among the richest gold mines in the world. According to a contemporary writer, there was a rich gold mine in Bidnur. Jordanus says that gold mines could be found along the west coast down to the northern boundary of Malabar. From Sewell we know how pure gold was separated from the ore. This was done mainly by using quicksilver. First, pieces of broken quartz that seemed to have had some gold content were chosen. These were then pulverized on a flat block of granite by means of a stone roller. This powder was burnt until the quicksilver was added to it. This drew the gold particles together, and a mass of quicksilver and gold was formed. This mass was heated on an iron plate, when the quicksilver evaporated leaving pure gold in the plate.

Kolar gold mines

In Mysore the Kolar gold fields were famous in medieval times also. Old workings in the Kolar gold field area suggest that these mines must have been worked even in medieval times. Tipu Sultan Raja Ramachandra. Old workings also show that gold mines were probably worked in the Honnali gold field and the Honnehatti area in the Shimoga district, in the Ajjampur and Tarikere areas in the Kadur district, in the Kotamaradi region, in the Bodimaradi hills, the Bellara mining areas, the Ajjanhalli and Ramanhalli regions, and in the Kalinganahalli and Honnabetta gold fields located in the long Chitradurga belt of schist.

Gold was abundantly used for making idols, for ornaments and other objects to be presented to the gods, for embellishments in the courts of kings and chieftains, for making coins, and for ornamentation by the general public. Innumerable inscriptions record the gifts of different gods such as Garuda, and gold pavilions to various to the temples. When the temple authorities themselves got such goldsmiths attached to temples. The images of gods were also made of gold and then gifted to the temples. When the temple authorities themselves got such goldsmiths attached to the temples. As regards the use of gold in the courts we get vivid descriptions from the foreign travellers. Abdur Razzak, for example, says that the throne of the

king was fairly big and was made of gold inlaid with beautiful jewels. Paes says that the nobles in the court of Vijayanagara had on their necks collars with jewels and gold set with emeralds, diamonds, rubies and pearls. They put on girdles of gold and precious stones round their waists. They held in their hands vessels of gold each as large as a small cask of water. On important occasions the kings weighed themselves against gold, which was then distributed to the people. The varahas and honnus were gold coins, and were minted in Vijayanagara as well as in its feudatory kingdoms.

Iron mines

Iron ores were located in Mysore, especially in the Chik-kanayakanahalli, and Kolar districts. Jordanus says that iron was found along the western coast of India. It is likely that the hills in the Chitradurga range of schist and the Kuniaraswami-betta in the sondur state contained iron ores. From the iron ores iron bloom, wrought iron and steel were produced. Iron was smelted in the charcoal furnaces. Steel was made by a kind of cementation process. Iron was largely used for military purpose, for manufacturing swords, bows, arrows, bucklers, daggers, and battle-axes. It was also employed in making household articles such as lamps, bedsteads and utensils. In Bidnur there was a factory named after Nimbaya, which produced articles required for the army such as armours, cannons and cannon balls. Copper was mainly found at Quilon. It was chiefly used for decorative purposes in the courts, for making household utensils, and for manufacturing articles required in the temples.

Diamond mines

South India was famous for its rich diamonds and other precious stones. The existence of diamond mines in this region was testified to by a number of foreign travellers such as Nicolo dei Conti, Barbosa and Nuniz. The diamond fields were mainly located in the Kurnool and Anabtoyr districts, especially at Vajra Karur in andhradesha. From Nuniz we learn that Adappanayaka, the ruler of the country of the Ghats, had to hand over to the emperor of Vijayanagara all diamonds above twenty mangelins (about twenty five carats) in weight. About diamonds and other precious stones in Vijayanagara, Barbhosa says There is great traffic chiefly in precious stones, which are held in great esteem in that kingdom, which trade is greatly honoured there. The King possesses a great treasure thereof, and boasts much of this. Garcia de Orta, who was in India before the battle of Rakshasa – Tangadi was fought, says in his Colloquy 43 On Diamonds, In Bisnager (Vijayanagara) there are two or three rocks which yield much to the King of Bisnager.... the stone which has a weight of 30 carats belongs to the King. There were better diamonds in a rock was not so large. If this rock styled the old rock could be identified with the Golconda rock, then it was in Telingana under the Qutb Shahs. Be that as it may, the diamonds of this rock were brought to the market of Elichpur (called Lispor by Garcia de Orta) where they were purchased by Gujarati merchants and sold at Vijayanagara with profit. After the fall of Vijayanagara its diamond trade was captured by Goa, which, according to John Fryer, was the greatest mart for small diamonds. Linschoten, who also speaks of the two or three hills near Vijayanagara in the Deccan behind the Balaghats where diamonds were mined and where those above 25 mangellyns in weight were to be given to the king, obviously borrowed this information from Garcia de Orta. Linschoten wrote after the fall of Vijayanagara when the diamond trade and passed on to Goa, and still says that the

Vijayanagar king was deriving much profit from the diamonds-a fact which was true when Garcia de Orta wrote, for he wrote in 1562. Nikitin speaks of different kinds of diamonds as follows:

- (a) Diamonds selling each at 5 roubles per 'parcel'
- (b) Diamonds each selling at 10 roubles per 'parcel'
- (c) Diamonds each selling at the rate of 2000 pound weight of gold per lokot
- (d) Kona variety of diamonds each selling at the rate of 10,000 pounds of gold per lokot.

Barbosa distinguishes between the diamonds of the Old Mine and those of the New Mine. The former were found in the Deccan in the kingdom of Golconda, whereas the latter were mined in the vijayanagara kingdom, were of poorer quality, worth one third less in Calicut and Malabar, and were prepared in the same kingdom of Vijayanagara. Barbosa also says that in India false diamonds were fabricated. Such imitation stones looked real, but they lost their natural colour. Speaking of the price of these diamonds weighing one Mangiar (Telugu manjali) were worth 30 fanams. The bigger diamonds, though of the same weight, fetched a higher price. Thus, four diamonds of the same weight (i.e. one manjali) were worth 60 fanams, and one diamond of the same weight was worth 100 fanams, finally one diamond of 8 mangiars fetched 1,400 fanams. Besides diamonds, many other precious stones such as rubies, topazes, white sapphires, pearls and emeralds were produced in medieval South India.

Ornament

Jewellery was largely employed in making ornaments for the gods, articles of luxury and show for the kings and the nobles in courts, and sometimes for the use of the common people for ornamentation purposes. Articles such as pearl garlands, pearl canopies, pearl bracelets, and ornaments of diamonds and precious beads were in great demand in the temples. According to Abdur Razzak, the gold throne of the Vijayanagara king was, as noted speaks of the ear-rings of stones and the collar of pure pearl. Paes writes that the nobles of Vijayanagara put on high caps bedecked with flowers made of large pearls. The collars of gold on the neck were richly set with emeralds, diamonds, rubies and pearls. There were strings of pearls for shoulder belts. The bracelets and armlets were of precious stones. The anklets were of pearls. Some sort of ornaments made of jewels were used even by the common people.

whether high or low, even down to the artificers of the bazaar, wear jewels and gift ornaments in their ears around their needs, same wrists and fingers. Nest the salt was produced widely but this industry does not seem to have been concentrated at certain places only. Barbosas says that salt-thanking was the business of particular caste, the caste of Behines in Malabar. It appears that in Bellary earth-salt was manufactured from saline mounds of earth called Upparas. Which survived for a long time thereafter. In the Molakalmuru area there were specific rules laid down regarding the manufacture of salt from saline earth. A number of inscriptions record the taxes levied on salt pans, especially in Malabar. Guntur, South Arcot, Chingleput, Tanjore, Travancore .Mysore and Shimoga.

Sugarcane

Sugar was, Doubtless, Manufactured in South India. We get various reference to the availability of sugar in abundance. But no details are forthcoming as regards the process of its manufacture. Sugar was generally available in two varieties, fine, white sugar and plam sugar or jiggery. Jaggery in South India demoted coarse sugar made from coconut plam-sap. It could also be made from the palms of other trees. In North india jiggery meant any unrefined sugar. Barbosa says that from Bhskaal, a great trading centre, powdered sugar was exported, and that there was plenty of says Barboss, if was wrapped up in small packets, and was not made into loaves, as elsewhere. But it seems that Barbosa was not aware that candied sugar, if this is what he meant by sugar loaves, was also manufactured in that region as testified to by Varthema who says that at Bhatkaal there was a great abundance of sugar candied according to our manner. The Sugarcane Mills of which the inscriptions speak. Must have been employed in the initial sugar of the process of the manufacture of sugar. Bidar was well known for the Bidar was well known for its Bidri metal-ware which was fashinod out of an alloy of copper, lead, tin and zine. The Bidri metal works were embellished with beautiful designs and were set with silver and sometimes gold.

Ship Building Industry

The ship-building industry flourished mainly at Calicut Cochin Chinguar and the Maldives Islands. Different kinds of ships were built at these centres, such as the alameda, a canoe or a boat made of one complete piece of timber, the atalya, a shore boat for patrolling the bargain, a sail and oars made of one piece, the frusta, a boat suitable for coast-work, the chaturt, a vessel with a sil and oars made of one piece, the fusta, a boat suitable for longer voyages, the parao, a vessel with oars and the mast both made of cane, and the zambaquo, a bi vessel probably used for long voyages. Barbosa, who had some practical experience in ship-buoilding, says that in Malabar the keeled ships of a thousand and a thousand and two hundred behaves burden were built without any nails, but the whole of the sheathing was sewn with thread As regards the build of the ships in the maldive Islands he says that they built many great ships of palm trunks' sewn together with thread. They also build small boats, he continues for rowing, like bargantins, or fustas, these are the most graceful in the world, right well built and extremely light. Other foreign travellers also such as Varthema and Ibn Batuta have given some, details about the build of the ships in the medieval India. According to Varthema, the vessels built at Calicut were of 300 or 400 butts equivalent to 200, tons It appears that the ships built were generally of moderate size, each having only one mast, one sail and one rudder, some of them as Barboss points out had no docks.

Of the other industries mention may be made of the dyeing industry in which indigo, produced on the west coast, and the myrobalam fruits found on the west as well as coromandel coasts were principally used, and the crafts associated with the coconut tree whose different parts were used for different purpose as evidenced by Burbosa and Abdur Razzak. About the coconut fruit, Barbosa says. They produce these cocos, a very sweet and grateful fruit when green; from them is drawn milk like that of pleasant water, better than that from a spring. When they are dry this same water thickens within them into a white fruit as large as an apple which also is very sweet and dainsty. The products of the coconut tree were the coconut fruit,

coconut oil, coir yarn, rope, toddy, jiggery, arrack (wine), leaves for thatching, for mats and umbrellas, stems for fuel, and timber or wood for building. Among the remaining industries were wood work industry producing many articles such as durniture, palanquins, bullock-carts, etc, the leather industry manufacturing shoes, sandals and bucklers; pottery producing the utensils, masonry with its allied crafts of brick-laying, quarrying and engraving, and fisheries.

Conclusion

There was a link between the caste and the occupation in the industrial production of the period. The emergence of artisan guilds in textile and metal industries not only contributed to cohesion among the various communities but also to the qualitative improvement of each craft. Rayalaseema became a very important region for production of cotton and silk textiles. Even today centres like Dharmavaram have retained their reputation for the production of textiles. The evidence suggests that Kaikkolars were producing cloths of high quality. The Panchalas or the artisans engaged a metal work emerged as a distinct class set apart from artsans who were engaged in carpentry, and blacksmithy. The emergence of temples in the area and the demands of the mobility probably acted in incentives for the prominence of Panchalas in the industrial set up of Rayalaseema.

References

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