The metal industries of Kashmir enjoyed considerable reputation particularly in arms for artillery, agricultural implements, wares of gold and silver and coins. References are found in Kalhana's Rajatarangini, where mention is made of the use of gold bangles, armlets, rings made of gold and many other ornaments. During the Sultanate period the industry was patronized by Zainu'l-Abidin as we have evidence of the existence of goldsmiths, gold-washers, gold beaters, blacksmiths and many others who carried on various metal works. After the Mughal occupation of Kashmir the workmanship in metal industry flourished to a great extent by virtue of the artisans intelligence and exceptional artistic aptitude. During the second half of the nineteenth century we find that this

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1. H. A. Stein, Kalhana's Rajatarangini, p. 265
2. Jonaraja's Rajatarangini (text), Stanzas 864, 899.
3. Ibid., Stanzas, 885-886.
4. E. D. Ross (tr.) Tarikh-i-Rashidi, p. 434.
5. S. N. Koul, op. cit; p. 112.
Copper Industry had been in existence for a fairly long period of time in Kashmir. Copper Smiths are believed to have been engaged from a very remote time for manufacturing different types of wares and tools. Various types of domestic utensils, needed for the purpose of cooking and serving the food, were made from copper. Coins, too, made of copper were being minted in Kashmir since ancient times. During the time of Sultan Zeinu'l-Abidin the minting of the coins and the manufacture of utensils and many other articles including the weapons were also undertaken. It is believed that the coins made of different metals were in vogue during the sultanate.


7. A. N. Raine, Geography of Jammu and Kashmir; p. 133. Copper ores include sulphides, oxides and carbonates. These occur in the shunbar area of Anantnag district in the province of Kashmir.

8. S. C. Ray, Early History and Culture of Kashmir; pp. 128-26. According to Kalhana there were copper mines in ancient Kashmir and evidently many workers must have been employed there for extracting the metal.

9. M. A. Stein, Rajastrangini, II; p. 312.
period, but the copper coins of the contemporary period are available in abundance. Coins of copper were mostly in use in the time of Afghan rulers too but owing to the paucity of material other works of copper are not known.

Lela Ganashi Lal writes that copper plates were imported into Kashmir and were subject to duty. People engaged in copper smithery were also taxed. Kashmir mint, where silver and copper coins were minted was a source of considerable profit to the state. Writing in the nineties of the last century, Lawrence observes, "perhaps the most effective and certainly the best value for the money is the copper-work." The smiths worked with both brass and copper and used hammer and the chisel. It appears from the study of Lawrence that many of the copper-smiths of his time were once silver-smiths. The designs made by the smiths were elegant, bold and original. They were ever ready to adopt any new pattern.

10. N. K. Zutshi, Sultan Zainu'l-Abidin of Kashmir, p. 135. Sultan Zainu'l-Abidin was a rich king and it is recorded of him that he distributed gold pieces or coins in exceedingly large number, yet his gold coins have scarcely been found.

11. Lela Ganashi Lal, Sayahat-i-Kashmir, p. 35. The copper smith would pay his tax through the Mukhdara appointed by the government.

12. Charles Baron Von Hugel, op. cit, p. 72. Kashmir mint was situated in present Daraf Mohalla in Zaina Kadal of Srinagar city.


14. Ibid.
that was offered to them. According to Lawrence the copper work was admirably adopted for electro-plating.

Even during his time some copper-smiths of Srinagar produced a beautiful article especially for electro-plating. The articles commonly manufactured out of the copper-metal were large trays, candle-stick holders, brackets in the shape of chiner leaves and many other things. But a very pretty work was the copper-enamel, a ground of light or dark blue or red, with the pattern in gilt in relief. In this work tea-sets, napkin rings, finger bowls, jugs of all shapes and other things were made. The copper jug was shaped like a duck called batish or a female duck, which was used for blowing up the fire. These jugs used to be so attractive that C.E. T. Bisco states "jug takes the fancy of most of visitors".

The copper trays framed as tables in carved walnut wood were in large demand. Evidently, it provided work to the carpenter too.

16. Dewan Kripa Ram, op. cit; p. 362. They also manufactured samavars, tumblers, cauldrons and other things.
17. Ibid., p. 462.
18. C. E. T. Bisco, Kashmir in Sunlight and Shade; p. 133.
19. Ibid.
20. According to J. Duke, a large trade was carried on in trays which were admirably adopted to electro-plating and exquisite tables of carved walnut-wood, fitted with carved copper-trays as a centre-piece were sold in large numbers (J. Duke, Kashmir and Jammu, A Guide for Visitors, p. 116).
who became the close ally of the copper-smith. The best known copper smiths according to A. Wingate were Leasa and Subhema.

It will not be out of context to point out here that there was a lust for manufacturing antiques which were mostly unfinished, because the more unfinished and in worse condition the work, the more pleased was the purchaser. So the workers preferred antiques to articles of modern art.

Iron and Steel Works:

The iron and steel smithery had been in vogue since earliest times. No agricultural community could go without implements which are needed for ploughing and digging soil and reaping harvest. Therefore, the blacksmiths must have been engaged from remote time in making different types of tools which were employed in agriculture. In addition to agricultural tools, different kinds of steel weapons, such as swords, arrow-heads, daggers, katar, and maces used in battle were also manufactured.

In the time of Zeinu'l-Abidin, the main weapons of war were swords, bows and arrows, lances, daggers, artillery guns and muskets. During the early period of Dogre rule (the period of our study 1846 A.D.—1890 A.D.) there was an improvement in the manufacture of weapons of war. The modern weapons like guns and pistols were fabricated in a sophisticated way. Wakefield remarks about the Kashmiri smiths were "very ingenious workers in metal, manufacturing good weapons, such as guns and swords". In addition to guns, and canons, saws and different tools for carpenters were also manufactured. The nail-cutters and horse-shoes were manufactured in abundance because the horses were mostly used for riding and carrying loads from one place to another. A good number of smiths were, therefore, engaged in the manufacture of horse-shoes (nal). Swords were largely manufactured.

26. N. K. Zutshi, op. cit, p. 119; The princes were clad in iron mail when engaged in fighting.

27. W. Moorcroft, Travels in Hindustan, II, p. 195. Lela Ganesh Lal, op. cit, p. 35. The iron used for these pistol barrels and guns was imported from the Punjab.


29. Dewan Kripa Ram, op. cit; p. 463.
in Srinagar which were greatly admired. The state government fostered its progress by employing 25(twenty-five) black-smiths and 10(ten) workmen at a place on the road to Gulmarg. It was there that of muskets and swords were manufactured. There were also thirty or more shops belonging to the black-smiths and gun-makers in the city in 1873 A.D. The gun-smiths manufactured rifles for the Maharaja's troops. The same year (1873 A.D.) each shop, in which four or five workmen were employed produced one or two rifles a month.

The city-gun-makers and black-smiths were reported to be experts and produced a good quality of sporting and war weapons, guns and rifles. For the manufacture of different tools, implements and weapons the iron was put in the furnace on fire for melting. The hot iron was poured out of the furnace to be hammered on the anvil. The process of heating the iron and besting it was repeated a number of times till the material received the shape of the desired article. Dewan Kripa Ram in

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31. The raw material was supplied to the gun-makers by the state government. The manufacturing labour of each rifle was paid at the rate of thirty chilkee ruppes. C.E. Bates, op. cit, p. 69.

32. In the last quarter of the 19th century many arms manufactured in Kashmir were smuggled into Hazara. Please see C.E. Bates, op. cit, p. 69. Dewan Kripa Ram, op. cit, pp. 457-462.

33. The iron which is heated and beaten strongly on the yeren (anvil) was treated as the pure iron. (Please see Anonymous, Resalat-i-Bandook Sargi, f. 2b) The different tools used by smiths have been given in detail in Gulzar-i-Kashmir. (Please see Dewan Kripa Ram, op. cit, p. 462).
Gulzer-i-Kashmir has given the details of the tools used by the smiths and gun-makers. The shop of the black-smith was known as Aextah-khan, i.e., fire-house. Services of the two persons were essential in the shop. The master smith and the worker who hammered the hot iron as the smiths kept the piece of iron moving and heating. The iron work has been shown in the magazine, "Resalai-Bandook Sasi", with the help of sketches. Both gun-smiths and black-smiths were unbeaten in their art and skill. The black-smith was regarded as the most industrious worker and was found in most villages of importance. As reported in the beginning the chief work of black-smith was the manufacture of agricultural implements and domestic requirements, such as chains, padlocks, and shovels. Besides, excellent surgical instruments were also locally manufactured. Iron was discovered and worked in several places in the valley and extensive operations to dig up iron ore in the neighbourhood of Soof were under way. The mines of iron were also reported at Ramban, Ram-nagar, Kotla, and Sabolee.

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34. Dewan, Kripa Ram, op. cit, pp. 457-462.
35. For details please see Resalai-Bandook Sasi.
36. Lawrence, The Valley of Kashmir, p. 372; Some of the blacksmiths in the city possessed extraordinary skill.
38. Anonymous, Resalai Bandook Sasi, f. 9a. Iron ore were also found at Shar in vill, at Harvan, in Zeinagir, at Tahuhen in Shahabad and at Yasher and Sof in Bringe.
The gun-smiths were greatly skilled. The well-known gun-smiths, Amirs and Usmane were bringing out good guns and rifles. They would replace the parts of weapons in such a deft manner that it was difficult to detect the difference between the Kashmiri and the English workmanship. They were so expert in their profession that they could convert muzzle-loading into breech-loading rifles. In the year 1880-81 A.D., there was a factory in Srinagar near Cheoni (Cantonement) where 60 workmen were reported to be engaged in the manufacture of rifles and carbines. Some of the black-smiths produced surgical instruments, which were used in the hospitals.

Gold Workers

Major J. Ince has in his *Kashmir Handbook*, 1876 referred to the gold work and jewellery made by the Kashmiri artisans. According to him the Kashmiris were very ingenious and "though their work has not that lightness and is not so fine charming in that of Delhi, it has a particular style of its own."

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40. G. M. General, *Gazetteer of Kashmir and Ladakh*, p. 23. It is reported that the government made use of them as contractors for the manufacture of arms.


42. Ibid., In Srinagar near the fortress of Hari Parbat 250 Kherwar of powder was the annual production. Muzaffarabad, Astor and Gilgit were usually supplied from Kashmir.
gold, of which a great deal of ornaments were made in Srinagar, was of exceeding good quality. In the plain gold they would make every imaginable article of jewellery charging at the rate of 2/- a tole for the material and two annas in the rupee for workmanship. The goldsmiths with the crudest tools, consisting of hammer, with a few tiny chisels and punches, contrived to copy with admirable fidelity numerous designs, both oriental and European. The goldsmiths were clever and could imitate without a flaw. The smiths could thus "fashion the usual article of jewellery..."

Gold was found in quartz veins. It gets liberated due to the action of wind, rain and chemical change. Particles of gold got concentrated in rivers and streams as placer deposits. It is believed that gold was not available indigenously but was imported into Kashmir, partly in raw state in the form of gold sand, but also partly as a finished product in the form of Iskardu coins.

46. Charles Baron Von Hugel (Annotated by D. C. Sharma), *Kashmir Under Maharaja Ranjit Singh*, p. 61. Edward Thornton, *Gazetteer of the Countries Adjacent to India on the North-West Including Sind, Afghanistan, Khelchistan, the Punjab and the Neighbour States* (under the authority of East India Company), Vol. 1, p. 356. Iskardu Coin was a small and thin gold coin worth 1.6 Nanakshahi "Rupaiye" "Amritseri" or Calcutta "Sicca". It was the currency of Iskardu Raja (Baltistan).
Silver Works:

Kashmir artisans' great sense and skill were to be found in diverse forms. The production of silver was one of these. From the time immemorial silver goods of Kashmir had been highly prized and these have been in great demand by the aristocracy. The silver ware of Kashmir were renowned for their beauty and form. During the Mughal period the silver industry of Kashmir had flourished and the use of silver ornaments had become common in Kashmir. Silver was shaped into ornaments, of every day use. It is believed that the industry provided opportunity to the skilled workers to concentrate on engraving articles of silver like dinner sets, tumblers, boxes and trays round the year.

Wakefield remarks that the silver smiths being very deft in their trade produced admirable articles, large quantities of which found their way to England by 1879 A.D. Remarking about the artistic aptitude of the smiths Wakefield states, "In gold they (smiths) fashion the usual articles of jewellery.

47. The Industry flourished because silver was cheaper than gold. The people could afford to buy ornaments of silver.


as seen at home, but it is in the silver articles they display more of what may be termed native taste. The raw material for the silver ware work was either imported in ingots via Yarkand or in rupee silver.

The silver-ware of Kashmir had earned great reputation abroad. It was the result of the fame of art and skill of the artists that almost every traveller, visiting the valley made it a point to carry back a memento of his visit in the form of one or the other article of silver. During the seventies of the nineteenth century the silver-smiths produced too many articles like trays, goblets, jugs, tea-cups and scent-holders. All these articles presented an exquisite show which attracted more and more customers. The Kashmiri

50. W. Wakefield, op. cit. p. 149.


53. W. Wakefield, op. cit. pp. 149-150; R. K. Bhan, Report on the Economic Survey of Silver-Ware Industry of Kashmir, pp. 12-13. Two kinds of goods were manufactured I. Plain and II. Engraved. The engraved silver-ware exhibited the skill of the Kashmiri artisans. The plain silver-ware did not compare with the engraved because the latter were entirely hand-made.

54. Lawrence, The Valley of Kashmir, p. 376.
artisan was a pest master in imitation and any odd sort of goods could be reproduced by him. The following classes of workmen were engaged in the manufacture of silver works—

I. Smith (Khar) was a principal worker in the silver ware industry. He would earn wages according to his age and skill. The wages would increase with the increase in his age and the attainment of skill.

II. Engraver (Nakash). He was equally important in the silver smithery. There wages were commensurate with their age and skill. In the case of smiths old age incapacitated a man and reduced his earning power but in the case of engravers, skill and experience increased with age. It is interesting to note that the engravers job, though demanding more skill and artistic dexterity than in the case of the smiths, did not carry higher wages.

III. Gilders (Zarkob). The gilders earned wages equaling those of engravers. The number of these people was small.

IV. Polishers (Roshangar). All polishers did not depend on silver-ware work exclusively, some polished other metal ware too. They in comparison earned less than what smiths and engravers earned.


56. Ibid., p. 13.
V. Cleaners (Chagfccer). They also worked on other metals and earned almost what the polishers earned.

These artisans occupied selected localities or mohallas, which later on were named after them, for instance, Roshanger mohalla for polisher, Hasari Bazer and Jama Masjid for smiths.

The workmen comprised people of all ages and skills, who worked in different establishments, headed by master workmen (qstad). The merchants were the middlemen between the producers and consumers. The manufacturers and traders, who financed the silver industry and trade, gave raw-material to smiths. After the smith finished his job, the article was sent by the merchants to other artisans for further setting. The last process of cleaning was done by charkhars, especially in the case of plain silver-ware.

The raw material was silver, though little quantities of copper were also required. The manufacturers got raw silver from local sareas—who specialized in this trade. Another, though limited source of supply of raw material, was the supply from Central Asia which passed through Kashmir and brought along with it silver metal also called "Yame".


58. Ibid., p. 6.
Obviously five classes of people, (workmen) as discussed above, were exploited by the middlemen, and it is believed, that the wages of the workmen were determined by the middlemen according to their wish and will. Usually a good number of workers worked generally together under the direction and supervision of their master who was responsible to the manufacturer for the efficient completion of the work. Generally, the workshops were run in rented houses; though there were some of the workmen who worked single-handed or sought the help of the members of their families at their own homes. Only a few merchants would get work executed under their own supervision.

The system of hereditary occupation was followed as far as the silver-ware industry was concerned. Originally, the silver-smiths were black-smiths and gun-makers but "with the decrease in the demand for gun-making these workmen took to the production of silver-ware". Likewise engravers and other workers had inherited their art. No new entrant was allowed in the trade from among people not belonging to it.


60. Ibid., p. 15.
Thus it shows the strong prejudice of smiths. But as far as the engravers were concerned they would train the people belonging to other classes. The living standard of silversmiths was low. It was mainly due to the fact that the work was not regularly available over the whole year. 

Brass was commonly used in the manufacture of utensils. The important article used for the domestic purposes were cauldrons, bowls, cups, tea pots, tumblers, (both simple and worked by designs) Plates and urn (Gagers). The Kashmiris largely used the brass utensils. C. E. Tyndale Bisco refers to the shopkeepers who sold "manufactured brass cups, bowls" and such other things. In addition to the utensils used for domestic purposes, the Hindu gods made of brass metal were also manufactured and sold in the market. It appears that brass were largely consumed in the valley obviously the industry must have provided work to a good number of people.

61. Ibid.
62. Dewan Kripa Ram, op. cit; p. 361; Gagers were used for sparing water. The other articles manufactured were Turo and pabreth.
63. C. E. Bisco, op. cit; p. 127. Dewan Kripa Ram, op. cit, p. 361; The shopkeepers also reported by Bisco were Hindus. The brass utensils were also used commonly by the Hindus.
64. Ibid.
Enamelling: The enamels of Kashmir were not transparent and differed in this respect from most of Indian enamels. The enamelling was done on brass, copper and silver by fusing over various substances. The traditional shawl patterns were also adopted to this industry and the articles manufactured presented a very pleasing appearance and were frequently of large size. The enamelling on these articles was applied with more boldness than delicacy.

Miscellaneous Industries:

Among the miscellaneous industries the important and prominent ones were as under:

Leather Industry:

The leather industry of Kashmir was most notable. In fact the leather work had been carried on since early times. Kalhana refers to the leather tanners as members of a particular profession. The ancient leather articles which the people of the valley used were leather doublets.

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66. John Collet, A Guide For Visitors to Kashmir, 1884; p. 76; T. N. Mukerjee, Art Manufactures of India, 1885, p. 173. For copper different shades of blue were used most frequently, whilst on silver a light blue was applied.
peacock shoes and other foot-wears made of leather. It was also prosperous during the Dogra rule as there was a large scale trade in leather in the valley. The industry was highly praised because the tanners of the country produced excellent leather. The leather industry of Kashmir is believed to have provided employment to a good number of people. It was chiefly the occupation of vata'1es who prepared the hides in the villages and brought these to Srinagar for tanning and curving purpose. Evidently leather was prepared after thorough processing at different stages. First the "skins after being cleaned were placed in a vat of clean water, with a layer of pounded galls between every two skins". This process was repeated for almost twelve hours.

67. M. A. Stein, Kalhana's Rajatarangini, VIII, p. 137; The water-bags made of bather were used by the kayastha officers among the important camp luggages. Kalhana also refers to a leather worker who was offered a hundred diners for the repair of a tory shoe and a whip.


69. They mostly resided in the villages, and were known as "gipsies of Kashmir" they were of different races and custom. F. Drew, The Jammu & Kashmir Territories, 1875 pp. 181-82.

70. C. B. Bates, op. cit; p. 66; A man was employed to tread the skins down daily from morning to night. In the process the hair of the skin was removed with the result both the hides and skins become soft. The alum and salt pounded together were rubbed on them. The hides and skins were kept in the juice, extracted from the roots of seil tree and the shell of pomegranates, for two or three days. When they absorbed the dye, they were taken out and dried. Lastly, these were scraped and stretched. (please see A. Koul, op. cit; pp. 90-91. Rev. by P.N.K. Banzai), Dewan Kripa Ram, op. cit; pp. 468, 479-480.
end continued at least for twenty-five (25) days. The leather after being tanned was made ready for manufacturing into various articles. The leather works of Kashmir were very fine due to the skilled ways and methods of tanning. The leather goods in variety of forms and in fairly large quantities, were manufactured in Kashmir. Among the articles manufactured were saddlery, harness, portmanteaux, valises, yaks, sandals, socks, boots (shoes), bags, coats and leathern apron for carpenters in which he carried his tools. The sandals, shoes and other things were made by the cobblers with their tools and profound techniques, whereas the saddles were made by another class of people. The leather for saddles was tanned and dyed into three major colours i.e. Red, Yellow and Black. In the manufacture of saddles the tools used were, big-stone (sang) used as the base, owl for stitching and knife like other instrument for cutting the leather. Yaks (mule trunks) kiltes (leather covered willow


72. Ibid., pp. 371-79.

73. S. Sinha, *Kashmir—The Playground of Asia*, pp. 159-60; Dewan Kripa Ram, op. cit; p. 470.

74. Dewan Kripa Ram, op. cit; p. 468.

75. Ibid.,
baskets)\textsuperscript{76} and wash-basin covers were the goods required mostly in trekking and camping\textsuperscript{77}. As already referred to above the cobblers manufactured sandals, shoes, bags and coats. All these articles were durable and serviceable for personal use and camping purposes. Hill-boots, chappies or hill slippers and leather socks, were examples of the articles manufactured in Kashmir\textsuperscript{78}. These articles were sewn by the cobbler with the thread, which used to be durable and strong. The stitches of this thread would last long owing to its wax content\textsuperscript{79}. The tools of the cobbler were simple and few i.e. 

\textit{Aara} for making holes, \textit{Tchurch} (for cutting the leather), needle—for sewing, thread and wax, planks of wood etc\textsuperscript{80}.

Generally the leather articles, specially shoes which were indigenously made, were put on show and sale at the village fairs (meals). The well-off-class of people wore the chapples.

\textsuperscript{76} Lawrence, \textit{The Valley of Kashmir}; p. 372; The superior kiltes were made in the city.

\textsuperscript{77} S. Sinha, \textit{Kashmir—The Playground of Asia}, pp. 159-60. These articles would help in convenient transport of stores and luggage.

\textsuperscript{78} Ibid.,

\textsuperscript{79} Dewan Kripa Ram, op. cit; p. 470.

\textsuperscript{80} Dewan Kripa Ram, op. cit; p. 470; The coats both waist and long were fabricated by the cobblers. These coats were warm and fetched good prices.
which were made of soft leather, whereas the coolies both in the valley and in the mountains wore sandals and shoes made of rice-straw. These were comfortable and safe for mountain climbing. The Tebetan sandals were also used in Kashmir and were made of ibex-skin. On account of their roughness and pliability were admirably adopted to walking over steep and dangerous paths.

The cobbler was an important factor in the rural economy of the state and catered largely to the needs of the people in general and the villagers in particular. It is evident that leather was largely consumed and the industry obviously would have engaged a large number of people.

Met-making (Wagguv)

Met-making has been the speciality of the people of Kashmir. The use of mats was made by almost all the families of Kashmir. Though the existence of this industry appears to

81. Gazetteer of Kashmir and Ladakh: p. 16. These sandals were laced and had thick leather sole.

82. The straw shoes were useful in the wet-weather and were often worn over the European boots.


85. Mats are even now used commonly in Kashmir, probably this should have been the practice since earliest times owing to the severe and long winter months. Beneath the matting (wagguv) was spread rice-straw for avoiding the cold of the floor.
be very ancient, it is said that mat-making was introduced in Kashmir by Mirza Haidar Daghlat. The pech-mats (wagguvs) were manufactured mostly in the rural areas especially in winter months when the villagers were free from the agricultural engagements. The villagers of Lasjan, to the south of Srinagar, were perhaps the best mat-makers in the valley. The industry provided employment to a large number of people. Mats (Wagguvs) were the most necessary item of furnishing in Kashmir and considerable trade in it was carried on locally. Excellent mats were fabricated out of the pech which was the swamp plant. The Anchar lagoon to the north of Srinagar was the great home of pech though it was found in most of the swamps of Kashmir. Apart from being used for flooring and other purposes, the boats were also roofed with the pech matting.

Wicker—works

The Kashmiris had since long been engaged in making articles of wicker for common use in their homes and fields. Wicker grew extensively in Kashmir and the use of it was made in the manufacture of different articles. The kiltas were manufactured, which were used for the transportation of

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87. . S. Sararal, The Botes and the Boatmen of Kashmir, p. 24. G. M. General, Gazetteer of Kashmir & Ladakh, p. 13; The mats were also used as the walls of the doonges and these mats were arranged in such a manner that these could be rolled up to form a sort of a window.
apples and for other rough village works. Wicker boxes for clothes, baskets, cages for animals and many other things were manufactured in Kashmir and these were largely consumed within the valley and outside too. Some of the wicker items were used for domestic purposes i.e. for, measuring rice, filter for removing the water from the rice, kengri and other things. The developments and changes in wicker-work took place and Kashmiris manufactured beautiful designs of wall baskets, flower baskets, curtain rings and boxes, which were in great demand from outside.

The industry was operating both in rural and urban areas. In the urban or semi-urban areas it was localized especially in Srinagar, Haren, Shelsbug, Hazrathbal, and Saura, while in the rural areas the industry was widely dispersed. The wicker artisans adequately catered to the local needs by producing important articles of every day use.

People who were engaged in this profession were known as kanils. They not only manufactured the new wicker articles but also repaired the old and damaged ones. These people would

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88. Lawrence, The Valley of Kashmir, p. 372. F. Younghusband, Kashmir, p. 215. These kiltas were also used by the bakers, who carried bread for sale from one place to another. Please see Dewan Kripa Ram, op. cit; p. 366.

89. Dewan Kripa Ram, op. cit; p. 366; Gazetteer of Kashmir and Ladakh, p. 426; L. N. Raina, op. cit; p. 144.

90. Lawrence, The Valley of Kashmir, p. 372.
go from town to town and village to village to repair
the baskets, boxes and kangris. The remuneration paid to
these people was either in cash or kind.

Kangri

Kangri is the corrupt derivative of a Sanskrit word
meaning a fire-pot. To a Kashmiri nothing was more indigenous
and, therefore, typically Kashmiri than Kangri, the fire-pot.
It was the result of experience spread over a very long time
that made this object of creative genius possible. This industry
is based on the combination of two industries i.e., the potters
and earthen pot, and the wicker workers wrap the body of the pot
with wicker. The wicker enclosed the Kangri for protection from
getting burnt. It can be carried along easily if the handle of the
kangri is wrapped with wicker properly. The Kangri workers mostly
lived on the banks of the Wular lake in the village of Wetleb and
Botingo where women & children also helped the male artisans in the

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91. The wicker workers would start working from morning with a
bunch of willows and tools along with them and would return
home in the evening after finishing their day's work.

was known in Kashmiri as Kundul. It was about 6 inches in
diameter and enclosed in wicker-work. Mannan had been the
earlier version of the brazier Kangri. It was not wrapped
with wicker rather it was used in its original form
uncovered with wicker.

93. A. N. Reina, op. cit. p. 144. In Tamar village a special
kind of Kangri was made which was known for its white
wicker and glossy sheen.
The stout kanori was known as *oree-kanori*. The kangri, fire-pot were and are used under the *pheran*—the long cloak used in winter as outer-garment of Kashmiris. The kangri gives warmth and makes it user comfortable amidst miserable frost. The burning charcoal inside and the degree of warmth varied as shown below:

<table>
<thead>
<tr>
<th>Kashmiri word</th>
<th>English Translation</th>
<th>Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vushun Sur</td>
<td>Warm ash</td>
<td>10°C</td>
</tr>
<tr>
<td>Tot Sur</td>
<td>Hot ash</td>
<td>20°C</td>
</tr>
<tr>
<td>Sot Nar</td>
<td>Temperate hot</td>
<td>50°C</td>
</tr>
<tr>
<td>Josh Nar</td>
<td>Very hot</td>
<td>70°C</td>
</tr>
<tr>
<td>Tyongel Nar</td>
<td>Red hot</td>
<td>900°C</td>
</tr>
</tbody>
</table>

**Pottery:**

The pottery industry had its origin in the remote past, as it was one of the principal crafts. The antiquity of the industry is testified to by the fact that a large

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94. Ibid.

95. The varied temperature chart has been borrowed from A. N. Raines, Geography of J & K state, p. 144.

96. S. C. Ray, op. cit, p. 126. Specimens of pottery assignable to the neolithic period and early historical periods have been recovered from Burzahom and other nearby sites.
number of earthen vessels, such as jar, pitcher, hendi-jar, bowl, kān̄ri (earthen brazier) incense burner, battle, earthen lamp and many other things have been recovered at Avantipur. Most of these are datable to the 9th century A.D.

During our period of study potters existed in sufficient numbers who supplied the wants of the rural as well as urban population. The industry was flourished mainly in the rural areas, and had market also in the city. Though the potter was not a rarity in the cities. However, the vessels made in the rural areas were more durable than those made in the city. In Srinagar the industry was centred at Kainawari. The important manufactures of the potters, which were in great demand, were earthen lamps, cauldrons both of small and large size, buckets, inner pot of kān̄ri, flower vases, cups, tumblers, tenders ovens—used by the bakers for making bread, water-reservoirs, and many other items used for domestic purposes.

97. S. C. Ray op. cit; p. 126; The town of Avantipur was founded by king Avantivarmen (855-884 A.D.).


100. Ibid., it is almost 5 to 6 kilometers from the city.

101. Dewan Kripa Ram, op. cit; p. 362; This was the most important industry and the articles manufactured were used in day to day life. The potters even manufactured fire-stove and small pots for curd and milk. Almost every article of necessity was fabricated by the potters.
In the process of manufacture the clay was of paramount importance. Two kinds of clay were used for the preparation of earthenware. An important ingredient mixed with the clay was sand.

The articles of pottery were often coloured. These articles once ready were varnished with a solution of rice-flour. The article of pottery was dipped in a bucket of flour solution so that it turned wet both inside and outside. Then the object was left to dry in open. After undergoing these processes the object was ready for sale.

Stone work

The stone work of Kashmir was notable, as the stone image which have been discovered in the valley amply testify to the skill of the stone-carvers and also to the wide extent of the industry. The focus was on the architectural aspect. The ruins at Martand, Avantipora, Petan Payar and other places bear witness to the standard of stone architecture and sculpture attained by stone-carver in ancient Kashmir.

102. One kind of clay would render colour to the article and the other kind of clay was used for making the article. Please see Dewan Kripa Ram, op. cit, pp. 416-17.

103. Dewan Kripa Ram, op. cit, pp. 434-35; The varnish solution was prepared by mixing rice-flour with water. The solution was heated and stirred for some time till thus it was concentrated through evaporation.
Even the Mughals\textsuperscript{104} patronized the stone architecture. However, the inhabitants of the valley men and women alike used jewellery for personal adornment since very remote times\textsuperscript{105}, with the passage of time as the stone architecture rueded into background, the emphasis shifted on to ornamental stone work which had already been there, and it became "a famous art peculiar to Kashmir"\textsuperscript{106}. For this purpose precious stones were imported from Samargand and fashioned into various ornaments in Kashmir. Jade was also imported from Samargand and Yarkand, for making royal seals and pendants\textsuperscript{107}.

The articles made out of these stones\textsuperscript{108} were, buttons, beads and breeches. The stone worker worked with veller (rock-crystals) and the veller pieces of huge sizes were common in Kashmir. To carry the rock-crystal from one place to

\textsuperscript{104} As is evident from the carvings in the pavilions and water falls of the Mughal gardens of Kashmir, like Shalimar, Nishat, Chashme-Shahi, and Achheball.

\textsuperscript{105} S. C. Rey, op. cit; pp. 126-127.

\textsuperscript{106} S. N. Koul, op. cit; p. 144. Dewan Kripa Ram, op. cit, pp. 407-08.

\textsuperscript{107} One such Jade sceptre was obtained as a trophy of subjugation of Leh, it is now preserved in Srinagar Museum. It is a master-piece of the art of lepidary.

\textsuperscript{108} The stones were cornelian, blood stone, onyx, liver-stone, mass-stone, lepip lazuli, rock-crystel and cats eye. All these stones were imported from Central Asia via Ladakh.
another place almost four persons\textsuperscript{109} were needed. The articles manufactured with vellor (rock-crystal) Iskardus, were flower vases, cups and plates. The mortars both small and large were manufactured. Not only this the Kashmiri was an adept in cutting stones and the Kashmiri sapphires were considered the finest in the world\textsuperscript{110}. Turquoise was found in Ladakh, it was worked upon with the most charming designs and large business was carried on in this item. But it cretely suffered due to the use of false Turquoise in Srinagar\textsuperscript{111}.

\section*{Rope-Making}

Rope-making was an important art in Kashmir\textsuperscript{112}. But no assertion could be made regarding the exact process of manufacturing and quantum of production. The tools used by the rope-makers and 'newar'-makers were few and simple\textsuperscript{113}.

\begin{quote}
\textsuperscript{109} Charles Baron Von Hugel, op. cit; p. 29. (Annotated by D.C. Sharme). These rock crystals were very heavy and usually weighed several hundred kilogramm. These were used for buttons, ear-drops and gems (Please see A. N. Raina, op. cit; p. 132.

\textsuperscript{110} S. Sinha, op. cit; p. 161; the lepiderists of Srinagar were very skilled, but not prosperous (please see Lawrence, The Valley of Kashmir, p. 379).

\textsuperscript{111} Anand, Koul, op. cit; p. 96. (Rev. by P.N.K. Bamzai).

\textsuperscript{112} Dewan, Kripa Ram, op. cit; p. 456.

\textsuperscript{113} The rope-makers made use of a semi-circular instrument made of iron iron, and the other one was known as kanti (Please see Dewan Kripa Ram, op. cit; p. 456.)
Ropes were manufactured from the leaves of a plant called Krishun, a species of iris and lilly which grew in abundance in Kashmir. These were also manufactured from a plant called Techkar and from twigs of trees. The ropes were commonly used by the labouring class to hold the luggage and to carry the same from one place to another. The ropes were also used by the agriculturists to carry the rice-straw from their fields to homes. Usually the villagers would make use of straw-ropes. These ropes were consumed locally as there was great demand for ropes within the valley.

Wine Manufacturing

The making of fermented liquor from grapes appears to have been common in Kashmir in the past. The liquor was prepared by depositing underground pitchers full of grapes.

The people of Gilgit also manufactured their own drink from grapes. The grapes were first stamped out by men in a wine press. The juice was allowed to flow into


115. Gazetteer of Kashmir and Ladakh, p. 83. The common ropes were manufactured from twisted straw.

116. Before holding the luggage or a sheafs of paddy straw the rope was first immersed in the water, so as to keep it flexible and make it durable for carrying loads.


118. Mention of Kashmir grapes is often made by Kalhana in his voluminous work Rajatarangini (please see M. A. Stein, Kalhana's Rajatarangini Vol. I, p. 42. The grapes formed an important item of the economy of Kashmir because a large portion of its produce was used for preparing wines.
another reservoir. The latter was beforehand well laid round with stones over which heated cement of chalk mixed with the fat of sheep was put. This reservoir was then sealed. But at the centre of its top, an opening was made over which a loose stone was placed. After (3) three or (4) four months, the reservoir was opened when the wine was found ready for use.

It is believed that in Kashmir the high class people, the elite of the valley, officials, municipal councillors and also Mehen Singh (Governor of Kashmir) seemed to like this sort of wine called *sharab*. The first attempt to manufacture wine in a scientific manner and on a commercial scale was made in Kashmir only in 1880 A.D. by the state government with the help of a number of French experts. The efforts of the experts, Binley and Peychaud, resulted in the production of 3,900 bottles of the red and 5,700 bottles of the white wine in 1882 A.D. in the Gupkar Distillery at Srinagar. The output gradually increased till in 1887 A.D. as many as 21,600 bottles of the red and 18,230 bottles of the white wine were produced.

119. G. W. Leitner, The Languages and Races of Dardistan, 1877, p. 32.

120. Saren Charles Von Hugel, op. cit. p. 31. (Annotated by D. C. Sherma). After the conquest of Kashmir by the Sikhs the manufacture of wine started on a large scale. This was because the Sikh soldiers were very fond of wine. (Please see G. T. Vigne, op. cit. Vol. I, p. 322).
The sale of the wine was, however, not encouraging.

The maximum sale ever made in any one year between 1882 A.D. and 1887 A.D. was 1,778 bottles of the red wine in 1883 A.D. and of 1,455 bottles of the white in 1887 A.D. 121. Subsequently, the sale decreased further so that the vintages of 1888 A.D. and 1889 A.D. were condemned and sold for a small fraction of their cost price. It has been recorded that the suggestions at this stage came for handing over the industry to the private enterprise, but the State government did not accept them 122. As a result the industry was soon found in a condition of grave deterioration and was run without yielding any profit.

There were many causes responsible for the failure of the Kashmir wine manufacturing. There was no demand for the Kashmir wines outside the state. Inside the state also, there was a limited number of people who habitually took liquor 123. Secondly, it had been assumed from the beginning that the soil of Kashmir was eminently suitable for the wine culture. The fact, however, appears to be otherwise. The out-turn of wine per 100 acres in Kashmir was much lower than that in France 124.


122. Ibid., p. 12. *Annual Administrative Report of the Jammu and Kashmir State*, 1889-90, pp. 42-43; The first real attempt to sell the Kashmir wines outside the state was made in 1884 A.D. In September of that year, forty dozens of the white and red wines of six different vintage were sent to Rawalpindi in the Punjab.


Thirdly the Kashmir wines were neither strong nor healthy. Lastly, the manufacture itself was not properly managed. Bad vintages were made and the good ones were moulded. Little or no blending was done.

**Book Binding**

Sultan Zeinu'l-Abidin is credited with having introduced the art of book-binding in Kashmir. The decorative binding art was imported from Samarkand. During her period of study the industry was indeed important. The tools used in this industry were many and varied i.e. the important ones being stone, scale, saw, scissors, knife and shikang. The raw material used for the binding was the hair of goat and sheep. Gum was also an ingredient used in the process of book-binding.

**Candle-Making**

Another industry of Kashmir was candle-making. Three main kinds of candles were manufactured i.e. simple candles, coloured candles and (kafuree) Camphor candles. As it was

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125. C. M. D. Sufi, *Islamic Culture in Kashmir*, p. 247

126. Dewan Kripa Ram, *op. cit*, p. 477. Siking (vice) was an instrument in which the bound book was kept for being pressed and trimming the edges straight.


128. Ibid., p. 367.
an essential requirement obviously it must have been in great demand. The industry must have provided employment to a fairly good number of people.

Comb-Makers

The Kashmiris also practised the art of comb-making. Dewan Kripa Ram has given the list of tools used by them for manufacturing the commodity.\(^{129}\)

Soap-Making

Two kinds of soap were manufactured in Kashmir—one kind from oil which yielded the coarse soap and the other kind was produced from fat. The former was called \textit{tile sabun} and the latter \textit{gafed sabun}.\(^{130}\)

Dyeing:

Dyeing has been a very old trade with the people of Kashmir. "The dyers were an independent professional group traditionally involved in dyeing".\(^{131}\) During the Mughal rule, the Kashmiri dyers were capable of producing three hundred varieties of tints, but these were reduced to seventy-four.

\(^{129}\) Ibid., pp. 427-370; The comb-makers were known as \textit{Shen-i-Cer}.

\(^{130}\) Gazetteer of Kashmir and Ladakh, p. 84. It is believed that there were two factories of soap in Kashmir. The proprietors of these factories had a monopoly of the trade.

\(^{131}\) P. N. Chaku, op. cit, pp. 10-11; D.C. Sharma, Kashmir Under the Sikhs, p. 170. The occupation of a dyer was invariably hereditary (please see Moorcroft, Travels, Vol. II, p. 175).
during the Sikh rule (1819-1846 A.D.)\textsuperscript{132}. During the Dogra period the art of dyeing in the state remained intact. According to Dewan Kripa Ram, there were countless\textsuperscript{133} tints used in Kashmir, whereas Lawrence states that the dyes employed were indigo, Sunflower, madder, red and yellow\textsuperscript{133a}. For dyeing one seer of thread the charges varied between 12 annas and £. 1/8 and the average profit of a dyer during the normal years was large\textsuperscript{134}.

Mostly, the dyes used were obtained from vegetables. The vegetable dyes could be obtained after long and labious process and could not be as appealing to eye, on account of their thin and dull hue, as the new dyes of bright and fast colours. According to W. Moorcroft, each tint had a separate denomination— the crimson was termed Gulnar (pomegranate-flower). The best was derived from cochineal\textsuperscript{135}, while the inferior tints were from Lecend-krimis (Chermes), distinguished as Krimisi, Kirmdane, and Kashmiri lac, or cochineal and lac chermes. Longwood\textsuperscript{136} was used for other red dyes. Blue and

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\textsuperscript{132} D.C. Sharma, \textit{Kashmir Under the Sikhs}, p. 171.

\textsuperscript{133} Desan Kripa Ram, op. cit, pp. 426-37. The dyers produced varieties of tints, the important ones were crimson colour, rose colour, onion-colour, Abbasi colour, Lalwari-colour Nafermani-colour, Ferosi-colour, Malei (cream-colour), Dillesari-colour, Angoran-colour, Yellow-colour, saffron (saffron-colour) white colour and black-colour.

\textsuperscript{133a} Lawrence, \textit{The Valley of Kashmir}, pp. 377-78

\textsuperscript{134} D.C. Sharma, \textit{Kashmir Under the Sikhs}, 171. But in the days of slumg in trade the dyer was not in a position to gain much.

\textsuperscript{135} W. Moorcroft, \textit{Travels}, p. 175. This was imported from Hindustan.

\textsuperscript{136} Ibid., Dewan, Kripa Ram, op. cit, p. 453. Logwood was obtained from Sultan.
green dyes were obtained from indigo, or colouring material extracted by boiling, European broad-cloth. Carthamus and saffron were the indigenous products and furnished means of various tints of orange and yellow. The black one was made from iron fillings.

The whiter and finer the fibre of the wool, and the finer the yarn into which it was made, the more capable it was said to be of receiving a brilliant dye. Thus, it was one of the reasons why the fine white wool of the goat was preferred to that of the sheep.

The process of dyeing was carried out in a simple manner. The yarn was dipped in boiling hot lime water so that it could obtain the slightest yellow colour and then the yarn was dipped in fermented water. The Anmar Bones were ground and put in the boiling solution. The turmeric was also added to the solution which was boiled constantly till the preparation was ready. After preparing the solution the required

137. Ibid., This was imported from India.
139. Ibid.,
cloth which was to be dyed was put in the solution. Lastly the article was washed with clean water.

Chints (Calico Printing)

The art of printing cotton, plain peshmina cloth, velvet and brocade was well established in Kashmir. According to Lawrence it was largely carried on in Srinagar. The export of ready-made garments of chints to the Middle East countries was considerable. The colours used in printing were locally made and in some cases these were imported from other parts of India, Great Britain, Russia and Sinkiang.

The patterns of Kashmir chints were greatly admired and were advised to be carried out also in Britain. The Kashmiri chintz artists exhibited their skill to the best of their ability and it was greatly praised and appreciated.

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142. Ibid.
144. Lawrence, The Valley of Kashmir, p. 377.
145. William Moorcroft, MS EURD-265, pp. 95-100
146. D. C. Shere, Kashmir Under the Sikhs, p. 180
147. W. Moorcroft, MS EURD 265; pp. 85-100.
Bee-Keeper

It was a cottage based industry which supplemented
the means of livelihood of the people of Kashmir. Parganah
Lar, was famous for production of honey while in Srinagar
it was carried on in Rainawari. It has been recorded that
there were thirty-three hives in 90 feet of walling.
The average output of a single hive was 8 seers of honey
in a year. The main feed of the bees comprised a
variety of millet, vegetable marrow, mulberry fruit and
melons. Generally the bees derived their food from flowers.
In Kashmir honey was collected in three seasons and the second
season which usually started from 15th April and lasted upto
middle of June was most productive and the period yielded the
best quality of honey due to abundance of flowers and
mulberry fruits.

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148. W. Moorcroft, MS. EERD, 266; f.1.
149. Ibid., MS EURD 265, p. 138. In Rainawari it was a family
of painters, who followed the profession.
150. These hives consisted of large concave plates of clay
which were kept in cavities of the walls. These differed
in size from place to place.
152. Lawrence, The Valley of Kashmir, p. 336.
152. M. Moorcroft, MS. EURD, 266; f.8 The city people used
to feed the bees on melons in times of scarcity.
Honey was commonly used by the affluent Kashmiris, who preferred it to sugar. It was also used by the Hakims (physicians) for preparing medicines. It was exported to Ladakh and the Punjab.

153. D. C. Sherma, Kashmir Under the Sikhs, p. 198