The art of paper making has been a speciality of the people of Kashmir. It is one of the oldest crafts developed by man. The art of paper was invented in China in 105 A.D.¹ The art moved from China to the west but not before the sixth century A.D. when the trade route from the Pacific Ocean to the Mediterranean was opened. It is believed that paper must have been one of the commodities of trade which the Chinese exported to the western parts of Asia. During the occupation of Samarqand by the Arabs in 751 A.D. they took into custody a number of Chinese prisoners who were adept in the art of paper-making.² The Arabs must have learnt the new art from them. Samarqand had abundant raw materials like crops of flax and hemp and also sufficient supply of good water. Since the conditions were ideal, it seems the industry of paper-making in Samarqand and perhaps also at some other places on the highway in Central Asia flourished during 7th century A.D. and onwards. The keenness of the occupying Arabs to spread their religion and culture in some what scientific manner³ also helped the expansion of the art.

1. Carla and John B. Kenney, Design in Paper-mache, p. 138. The idea of paper-making is reported to have been developed by a Chinese court official named Tsai-lum.

2. Ibid.

3. Pandit Anand Koul, (up-dated by P. N. K. Bamzai), Geography of Jammu and Kashmir States, p. 75; According to the author the art of paper making was brought to Samarqand almost in 13th or 14th century A.D.
of paper making. It was in Samarqand that the crude Chinese method under-went considerable improvement. The invention of the transfer mould was a notable invention from Samarqand, it was carried to Kashmir for the first time during the reign of Sultan Zainu’l-Abidin (1420-1470 A.D.) It is believed that the art of paper-making was brought to Kashmir at the behest of the Sultan. The then king of Kashmir sent two intelligent Kashmiris to Samarqand at government expense for training in the art of paper-making and book-binding.

Stein, the author of Ancient Khotan states that the manufacture of paper in Eastern Turkistan had been carried on for centuries before the end of the 8th century A.D. This indicates that the paper might have been introduced in Kashmir much earlier than Zainu’l-Abidin’s period, as is evident from the tomb of Zainu’l-Abidin’s mother at Zaine-Kadal in Srinagar, where mashed paper with glue has been used for fixing the glazed tiles on the outer walls of the tomb.

4. Haider Malik Chaudura, Tarikh-i-Kashmir, p. 47; Anand Koul, (up dated by F. N. K. Bamzai), Op. cit; p. 75; Prior to the introduction of the art of paper-making birch-bark was used for writing purposes in Kashmir. Numerous birch-bark manuscripts were taken by Europeans, specially German scholars to their own countries where they are preserved with utmost care and are being copied and printed on paper. There are still manuscripts on the birch-bark in Kashmir but their number is very small.

5. Anonymous, Baharistan-i-Shahi, ff. 21a-22b and 47a-48b.

6. Stein, Ancient Khotan, Vol. I; p. 135; The oldest manuscript pertaining to manufacture of paper obtained till date is of the 8th century Khotan.

7. Information obtained from J.L. Bhan, Curator, Central Asian Museum, University of Kashmir, Srinagar.
Generally it is believed that the practice of making rag paper had been introduced in Kashmir by Muslim immigrants from Persia and Samarkand between the fourteenth and fifteenth centuries. Henceforward, the Kashmir paper was in much demand from India for manuscripts, and "was used by all who wished to impart dignity to their correspondence." Sultan Sainu'l-Abidin is said to have patronized and established it in Mawshahr, his official residence and Ganderbal, where water power was developed to pulp the rags. In these two localities the industry remained in existence ever since and a considerable number of paper workers settled in Nowshahra, where there were till recently some families engaged in this industry. The industry flourished and the quality of its product improved to excellence, mainly because of the royal patronage. The best quality paper could be washed, dried and used once again. This is abundantly clear from the letter of Shaikh Yaqub Sarfi to Abdul Qadir Badeuni. "If you should have any need of Kashmir paper for rough notes and drafts, I hope that you will inform me of the fact, so that I may send you from Kashmir the rough copy of my commentaries, the writing on which can be washed from the paper so completely that no traces of the ink will remain as you yourself have seen." 

8. Charles Baron Von Hugel, (Annotated by D.C. Sharma), Kashmir Under Maharaja Ramjit Singh, p. 28; Lawrence, The Valley of Kashmir, p. 379;
9. Anand Koul, (up-dated by P. N. K. Bansai), op. cit; p. 76 Nowshahra is to the North of Srinagar and there vets were erected to turn the pulp into paper.
During the Mughal occupation of Kashmir we notice that Kashmir was no less reputed for the manufacture of paper. It registered its progress enormously and under Afghans it is recorded that paper was exported "as an article of extensive commerce". The industry maintained its quantum of manufacture and the position continued even up to the Sikh rule in Kashmir. Hugel remarks "The paper produced in Kashmir is famous in the whole of India". It has maintained its ancient reputation, "being superior to anything yet produced in Hindustan".

Moorcroft states that it was a regular industry and yielded Rs. 3,000/- as annual tax to the state. Nevertheless, there was a great demand for Kashmir paper in India and a large quantity of it was exported.

During our period of study there was enormous increase in the manufacture of paper in Kashmir. Two places referred to earlier, Nowshahr and Ganderbal were the main centres of the manufacture of paper. In addition to these two places, there was

11. George Forester, *op. cit.*, II; p. 121.
14. William Moorcroft, MS EUSD, 264; p. 116; Baron Charles, Von Hugel, *op. cit.*; p. 28; Hugel remarks that it was not a regular industry.
15. Lala Ganeshi Lal, *op. cit.*; p. 34.
a factory in the Hari-parbet fort and this establishment was worked by the convict labour. However, the more workable and productive factories were at Nowshahr and Ganderbal. The Ganderbal “paper-mills worked with water power”, and these were on the bank of the Dal at Telbal. More mills in which the pulp (Kashmir) was prepared were situated on the Dal lake, near the Shalimar garden and at Bera in the Lar Pargana. About thirty-two factories were reported to manufacture paper in the suburb of Nowshahr and each factory provided employment to about twelve men. Lawrence states that there were some thirty-six families in Nowshahr and “each family to work efficiently should have fourteen members”. There are no census and other reports which could determine the exact number of workers engaged in the industry but it appears that a sizeable number of people were engaged in paper-making to earn their sustenance. During the winter months these factories were

16. C. E. Bates, op. cit, p. 66. Bates states that the factory at Hari-parbet had lately been closed on the ground that “the government monopoly having been farmed out to be a contractor.”


20. Lawrence, The Valley of Kashmir, p. 380. It has been recorded that an average family would make five dastas of good, or seven dastas of rough paper in a day, a dasta would contain twenty four sheets.
reported to be closed. Since these factories were run by water-power and the water in winter months froze. This obstructed the operation of these factories. The factories, came to a standstill till the temperature touched the zero degree. More usually, however, the work was resumed only after the lapse of winter months. Obviously, this industry of Kashmir provided sustenance for a limited period of time. The seasonal functioning of the industry often jeopardised its economic stability.

Nonetheless, whatever limited quota the industry yielded, it was in great demand for making copies of manuscripts. In India, Kashmir paper was generally used for "polite correspondence" and was distinguished by "its fine gloss and polish, its evenness and freedom from flaws, also by its white wax-like colour and appearance." The Kashmir paper was durable in contrast to the paper made in Europe. In Europe, the practice of mixing certain chemical substances with the pulp is said to have caused a great deterioration in the quality. The paper manufactured in Kashmir was of higher quality and as such was displayed in the Exhibition at Lahore in 1864 A.D.

21. Ibid., Gazetteer of Kashmir and Ladakh, p. 80. In Kashmir the work in winter was an uphill task especially at the times when the water ceased to flow owing to minus temperature.


23. Bates, op. cit; p. 66.

The specimens exhibited ... were best of all native manufactures, can be purchased everywhere.\textsuperscript{25} Thus the paper of Kashmir won the admiration and reputation, and this obviously increased its maximum consumption. A European land Settlement Commissioner Sir Walter Lawrence used the paper manufactured in Kashmir to a large extent. He states that the "paper of Kashmir is durable in many ways excellent."\textsuperscript{26} During our period of study the paper of Kashmir enlisted in the export register and was subject to government duty.\textsuperscript{27} One maund of paper in finished form would cost Rs. 26 and annas 9\textsuperscript{28}/

The manufacturing of paper involved the following raw materials and processes:

\textbf{Rags:}

These are old and worn out cloth, chiefly cotton and some linen. The rags which were brought or collected in the city were first well sorted over and selected. They were

\textsuperscript{25} Ibid., p. 66; George Forester, op. cit., II, p. 19. Forester remarks "the Kashmirians fabricated the best writing paper of the East".

\textsuperscript{26} Lawrence, The Valley of Kashmir, p. 380.

\textsuperscript{27} R. H. Davis, The Trade and Resources of the countries of the North-Western Boundary, pp. CCXL-CCXVII; these developments in the manufacture of paper were reported in the second half of the nineteenth century and onwards.

\textsuperscript{28} Anand Koul (updated by P. N. K. Bansal) op. cit; p. 80. This cost was exclusive of any profit or wages. More precisely we can say that it was the amount of investment.
also torn into narrow strips. During these processes the
loose dirt was shaken-out. This was done during the progress
of the beating operation in washing.\textsuperscript{29}

\textbf{Hemp:}

The hemp fibre prepared from the wild hemp plant
was sometimes beaten in, and mixed with the rags pulp. The
purpose of it was to increase the strength of the paper.\textsuperscript{30}

\textbf{Saz or Sazi:}

A crude carbonate of soda in small quantity (about
1½ seer per maund of rags) was mixed with the rags during the
beating operation, as was also about ½ seer of slaked lime,
with the object of assisting the softening the rag and to
whiten it.\textsuperscript{31}

\textbf{Starch:}

This was made by the paper-makers themselves from
rice. It was used as a sizing agent to enable the paper to
carry ink.\textsuperscript{32}

\textsuperscript{29} Gazetteer of Kashmir and Ladakh, p. 80.

\textsuperscript{30} Lawrence, The Valley of Kashmir, pp 379-80; H. W. Bellow, Kashmir & Kashgar, p. 87; Bellow states that the fibre of
the wild hemp plant grew in Kashmir in abundance.

\textsuperscript{31} Gazetteer of Kashmir & Ladakh, p. 80. Lawrence, The
Valley of Kashmir, pp. 379-80; These chemicals have no
effect on colour if used in the cold. If the rags would be
boiled with them, the effect would be considerable, as they
then would combine to form caustic-soda (Nacch) which is
powerful decolouring agent.

\textsuperscript{32} Lawrence, The Valley of Kashmir, p. 380. About seven
seers of starch was obtained from four seers of rice.
The processing of the paper was a stupendous job and as referred to earlier the preliminary process was to remove the dust from the rags by tearing the rag into narrow strips. The washing of the rags was done during the process of the beating operation. The beating process would reduce the raw materials to a state of separation in which the ultimate filaments composing the natural fibre, free from each other, could be caused to float individually and separately in water. This process was carried on by pounding the material in a stone mortar with an iron shod pestle activated by a pivoted beam which was raised by a spurred shaft driven by a water-wheel. The rag strips were fed into the water by hand. These strips were chopped into short pieces, which dropped under the pestle and then these were pounded between its flat surface and the bottom of the mortar. The rags were worked after being slightly dampened with water and small pinches of sand and lime were thrown into the mortar at intervals. This process was repeated four times and at each successive stage the

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33. Ibid., pp. 379-80. Gazetteer of Kashmir and Ladakh, p. 80. G. M. D. Sufi, Islamic Culture in Kashmir, p. 245. Bates, op. cit, pp. 66-67; Bates writes that the finest materials were selected for the superior qualities of paper. This material was then pounded "for 24 hours without intermission" in an ordinary lever-mill worked by the feet.

34. The pestle had a square head shod with iron and preserved four straight edged cutting planes to the side of the mortar.
meteriel reached a fine condition of sub-division and the fourth and final beating brought into the required state. Between each stage the pulp was washed in trough formed by binding the ends of a piece of cloth, about six feet long, round the wrists of two men who then stood in a stream of running water in such position that the trough and the pulp was immersed in the stream, the top edges of cloth trough being above it. They agitated the pulp vigorously with their hands and the pulp was then drained and pressed into cakes about a square foot, 1\frac{1}{2} inches thick and dried in the sun to bleach. The bleaching effect was only on the surface and for about an eighth of an inch under it. But as the process was repeated four times, fresh surfaces were in turn exposed and the final result was a fairly good cream white. After this process was over another process of moulding followed. The cakes of washed, bleached and beaten pulp were sent to the vats at factories to be made into paper. The pulp cakes were kneaded in an earthen pot with water under men's feet to bring them into a "free condition in which they float in water." The pulp was then transferred to

35. Bates, op. cit; pp. 66-67; According to Bates, this process was repeated from five to twenty times till the requisite quality of paper was obtained.

36. Lawrence, The Valley of Kashmir; p. 380; These cakes are exposed to the sun to bleach. The bleaching effect is only on the surface and for about an eighth of an inch under it.

the vat with a large volume of water and the vat had no agitator to prevent pulp settling down at the bottom. There was also no preliminary straining of the pulp to arrest "knots" or unbeaten particles before reaching the vat. These simply went into the sheets and caused irregularities and blotches. The thickness and the weight of the sheet were regulated (1) by the amount of pulp the vatman brought up from the bottom of the vat by the gentle waving agitation he produced with the lower part of his mould when he judged the mixture of pulp and the water had reached the right consistency and (ii) by the number of "dips" which he super-imposed on the top of each other on his mould. The practice of super-imposing successive "dips" added largely to the strength of the sheet. The mould used to be merely a square of cloth stretched over a wooden frame, the pulp being plastered over it. It embodied the principle of floating the pulp on it, and, as the wet sheet could be transferred from it, a single mould could be used by the vatman continuously, alternately moulding and transferring sheets. Its advantage was that it moulded a sheet from one dip, and, being rigid instead of flexible, the wet sheet could be transferred to the transfer felt by one single and rigid motion. Further, in withdrawing it from the vat it created a vacuum under it, which sucks a considerable amount of water out of the moulded sheet lying on its surface.

38. Bates, op. cit. pp. 66-67. This mould was usually kept by the vatman nearby in the process of transferring the pulp into paper. The mould was a frame or tray made of strips of lightwood, on which rested a blind or screen of fine reeds.
Another process is couching and as it is the mould which is flexible, the 'couch' has to be flat and rigid. A sloping board, somewhat larger than the size of paper being made, formed its foundation. An old worn-out mould was first laid and a square of damped cloth was stretched over it. These together formed an underlying drainage system for the pile of wet paper, about to be raised on it, but the cloth was also required to give the necessary fibrous surface to which the first wet-sheets were transferred on top of one another, the roughened surface of the wet paper being sufficient to cause the required amount of adhesion. A block of paper was thus formed, which preserved the flattened and sufficiently rigid form required to take the transfer from a flexible mould. When the block consisted of about 72 sheets, another board was placed on top and this was loaded with stones and left all night to drain. In the morning a final addition squeeze was given by several men adding their weight to that of the stones. 39

Afterwards the sheets were carefully detached from each other and spread carefully on a specially prepared smooth mud wall exposed to the sun. 40 Six to eight sheets were pasted or pressed on one another and they adhered merely to damp cohesion. When these dried up they were easily detached from each other. 41


40. Bates, op. cit; p. 67; writes that these sheet layers were hung on the walls of the surrounding buildings or laid upon the grass to bleach in the sun.

41. The sheets which were defective, were removed, and the remainder were then collected in squares of 24 sheets and the edges were smoothly cut to the required size with a knife.
The sizing was done with the rice starch. Prior to this process each sheet was rubbed by hand with a sort of pumice stone (karkutta). It was then dampened and again rubbed with a rough long lomerase stone called the Sangachra. The sheet was then passed to the kharashwool, who would rub the starch on both sides of the sheet with the aid of a woolen milt. The sheets were then hung upon ropes to dry. It was again dressed with starch and dried. For enabling the paper to carry native ink laid on with the reed pen, this method of sizing was fairly effective. The water might spread into the surrounding fibres, but the colouring matter was filtered back and remained where it was laid by the pen. The only thing that is to be said in favour of starch sizing is that it was the most profitable part of the whole manufacture.

Lastly followed the process of glazing. The sized paper was surfaced or polished by friction with a piece of polished agate fixed in a wooden handle. This job was performed by the person known as moharkash. To effect this the sheet of paper was laid on a narrow smooth and sloping board, before

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42. Bates, op. cit; p. 67.

43. Ibid., Gazetteer of Kashmir & Lurak, p. 81; The woolen milt was usually made of goats' hair, which the kharashwool would dip in a bowl of rice (maiye) by his side when at work.

44. Bates, op. cit; p. 67. Such ink was not a true solution, but consisted of carbon (lamp-black produce from burnt rice) in a state of fine suspension.
which the moharaksh kneeled, and holding the mohra
with both hands, he rubbed the paper with much care and
skill until the designed polish was obtained. If any little
flew would occur, he would tear a morsel of paper from a
sheet by his side, and would insert it in the hole, rubbing
it in until the scar was obliterated. As each quire
completed, it was removed, folded, in the middle, and
rolled into a cylinder, which was encased in a cover of
coloured paper which were twisted up at the ends.

The whole of this process was carried out by hand.
It was “exceedingly slow and laborious.”

The best quality of paper manufactured in Kashmir
was called Fermaish and a large part of it was consumed
in government offices. This was a fine paper, highly glazed,
and was made of pulp containing two parts of hemp fibre to

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and persistency until the required polish was produced.

46. Ibid.

47. Ibid.

48. Ibid.

49. Ibid., pp. 67-68. Baron Von Hugel (Annotated by D. C.
Sharma), op. cit. p. 46 f.n. 50; Gazetteer of Kashmir and
The Fermaish was also called Maharaj or Royal paper.

every sixteen parts of rags. The *Pamnashi* paper was further subdivided into three qualities vis. (1) *Auler*, the best would cost six chilki rupees per quire. (ii) *Ansat*, the second quality was sold at four rupees per quire and (iii) *Adhar*, the third quality at the rate of three rupees a quire.

The second category of paper was known as *Pamnashi*. It was common and generally used. It was made from a pulp containing three parts of hemp fibre to every 177 parts of rags. It was sold for 1 \( \frac{1}{2} \) chilki rupees per quire. A thin straw-coloured note or letter paper called *dakhi* was also manufactured. It was made into small sheets, and costs three chilki rupees per quire. The *Rangi* or coloured papers were sold at twelve annas (chilki) a quire.

52. Bates, op. cit, pp. 67-68; one quire comprising 24 sheets would cost six chilki rupees and each sheet measured 2\( \frac{1}{2} \) feet square.
55. Bates, op. cit, pp. 67-68; The *Rangi* paper was used for packing purposes.
The third and last category of paper was known as *kalamdan*. It was of an inferior description containing no hemp fibre. The *kalamdan* was chiefly manufactured and would cost 10 annas (chilki) a quire. The *sherrianoj*, which was made in small square sheets was sold at four annas a quire.

The study of the sources regarding the manufacturing of paper shows that it was an industry of vital importance. The industry lent genuine if not adequate support to the economy of the valley. It was a part-wise work done in parts and every part of the work engaged a considerable number of workers. Eventually, a large section of the society was dependent on this industry, earning sustenance for themselves and their families. A vatman or *housawool* was paid two annas per *dasta* (quire) as wages. The earnings of this industrious worker depended on his output. A good and healthy workman could "turn-out about four quires of *farmashe* paper and six quires of *---.---.--.-.-.-.-.-.-.-.-.-.-.-.-.-.-.-.-.-.--."


58. Bates Charles V. Hugel, (Annotated by D. C. Shama), op. cit; p. 75. The standard counting for paper sheets was *dasta* of 24 sheets. Dozen and *gurra* were counting units for certain articles. Calculations were made in notations and Arabic cipher. Please see Edward Thoroton, op. cit; Vol. I; p. 365.
The inferior sorts per day. The moharakash or rubber variety was paid for four to eight annas a quire according to the quality of the paper. The job of this class of workers was laborious and generally their production could exceed a quire a day. The karashwool, who spreads the rice-paste, received wages at half the rate obtained by the moharakash.

There was another class of workers engaged in the working of this industry. These people engaged themselves in the process of drying the sheets of paper and the wages obtained by them were two annas per day. The horizon of the industry appeared to be wider and obviously a considerable number of people should have been depending on this industry for sustenance.

PAPIER-MACHE

Papier-mache is one of the oldest crafts developed by men. The work is peculiar to Kashmir, where it goes by the name of Kar-i-Kalamand or Kar-i-munakash. As far as the Kalamand were concerned people

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60. Bates, op. cit; pp. 67-68.
61. Ibid.,
62. Ibid.,
63. Gazetteer of Kashmir and Ladakh; p. 82. Kashmir Handicrafts, Govt. of India, publications; p. 18; The work was by no means always of papier-mache, as it was frequently done on articles of smooth wood.
might have either as a necessity or fashion been fascinated by these products. We are told, that these served the purpose of a brief-case or a portfolio for which this craft has been recorded as kar-i-manshekh, which probably means kar-i-kalamdan or the work of making pen-cases.

The origin of this industry is obscure but there is a theory which reveals that the art of papier-mache originated in Iran. The illustrated Persian magazine Honar-o-Mardom of Tehran carries a detailed article on the topic. The author believes that the art was necessitated by kalamdan (pen-holder) which did exist during the 12th century A.D. The art of papier-mache in Kashmir might have been prompted by the need of a kalamdan and later on delicate motifs were added. Moreover, the author believes that the art of papier-mache was brought to Kashmir by Iranian travellers and immigrants. But there is a general belief that the art of papier-mache was introduced in Kashmir for the first time by

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64. G. M. D. Sufi, Islamic Culture in Kashmir, p. 238; G.M.D. Sufi, Kashmir, p. 577; Sufi states that papier-mache was a mashed paper. The term kar-i-kalamdan was usually applied to the ornamentation of pen cases and small boxes.

65. Honar-o-Mardom (Tehren) Vol. 73; Kashmir Handicrafts, p. 18. According to it the art is essentially persian in origin. It is a close preserve of the descendants of Persian craftsmen, who had migrated to Kashmir.
Sultan Zainu’l-Abidin. It is believed that for the promotion of this art the Sultan had sent some intelligent youngmen to Samarqand to learn the art and bring the knowhow to Kashmir. Not only this, the king in order to improve the standard of this industry in Kashmir, imported certain experts from Persia to provide expertise to the local artisans in the art of papier-mache.

The art of papier-mache remained confined to Shia community of Kashmir for unknown reasons. The shias practising this craft would not share the knowhow with others. Papier-mache during the medieval period was one of the leading crafts of Kashmir.

The paucity of source material prevents us to show how the industry subsequently fared. However, beginning of the nineteenth century witnessed its re-appearance amongst other crafts of Kashmir. Quite a number of Kashmiri artisans

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66. Anonymous, *Bahrastan-i-Shahi*, ff. 47-48; Pandit Anand Koul (up-dated by P. N. K. Bansei), op. cit., p. 67, *East and West*, Vol. XV July-Dec., 1916; p. 657; S. N. Koul, op. cit. p. 107. It is interesting to note that both *Homar-e-Mardan* and *Bahrastan-i-Shahi* corroborate each other that the art of papier-mache was imported one. Though it is different story, both the sources differ on its origin.

67. *East and West*, Vol. XV, July-Dec., 1916; p. 659. The Shia-Suuni conflicts had developed an element of rivalry amongst the two sects. Since the art was brought into Kashmir by shias and as a result of enmosity between the two, the shias confined the art to their own community.
earned their living by making various articles of papier-mache. The papier-mache articles like *masnadi* or *farsi* were manufactured in Kashmir. These articles were ornamental and utilitarian both. These manufactures were objects of great attraction to the people of the west, who lavishly praised the artisans engaged in the papier-mache industry. The pen-cases found ready market in Kabul, France, and other European countries and a considerable quantity of these were exported annually. Like other industries the state would derive revenue from this industry also. The workmen of this art were heavily taxed and Maharaja Ranbir Singh is said to have remitted this tax in 1876 A.D.

The state policy did constrain the smooth working of the artisans. Strict measures used to be taken against those who would change their employer. Under such stringent system no workman could change his employer without the prior permission, lest he should divulge the art secrets of one to the other. Maharaja Ranbir Singh (1857-1885 A.D.) the great

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68. Morcroft, MS EUR D, 264; It is recorded that Maharaja Ranjit Singh brought certain artisans from Kashmir to Lahore and deployed them in working on the ceiling of the *Baradari* at Shalimar in Lahore. Only forty artisans had remained behind in Kashmir at that time. Please see Morcroft, MS EURD, 266.

69. Moorcroft, Travels, Vol. II, p. 215. G.T. Vigne, op. cit, Vol. II, p. 122. The *masnadi* were the articles of table furniture more or less bulky and *farsi* were portable. These articles were remarkable for their variety and the elegance of pattern.

70. Lala Geneshi Lal, op. cit; p. 34.

71. Pandit Anand Koul (pp-dated by P.N.K.Bansal), op. cit, p. 72. S. N. Koul, op. cit; p. 108. The tax collected by the government from the papier-mache workmen were rupees 500/-. 
industrial enthusiast relieved the workman of these limitations laid down by his predecessors. He took personal interest and patronised this industry and it is believed that he usually presented papier-mâché coffee sets to his European friends. Such steps of the government, though, limited must have opened markets for the papier-mâché goods in the foreign markets. Now these appeared manifold increase in the manufacture of papier-mâché articles. Under the influence of the French shawl agents, boxes, vases and surahis were manufactured. Pen-cases, trays, cabinets and boxes used to be the articles usually manufactured, but a similar type of painting was sometimes applied to palanquin, boats and even to walls and ceilings of rooms. The "richer classes used to call in nageer (painter) for the decoration of ceilings and walls" of their houses.

The papier-mâché industry carried one and two-in-one business in certain articles. Shawls exported from Kashmir were sent in papier-mâché boxes. Amongst the papier-mâché articles exported from Kashmir the kalamkars were in great demand. In

72. Ibid.
73. Gazetteer of Kashmir & Ladakh, p. 83. The painters of Kashmir were an ingenious race and they possessed a talent which under the fostering care of the government and competent instruction "might be applied with success to loftier objects than articles of furniture or decorated pen-cases" quoted by Moorcroft in Gazetteer of Kashmir and Ladakh, p. 83.
74. Lawrence, The Valley of Kashmir, p. 378.
the seventies of the 19th century people who manufactured 
*kalamdsns* had risen to prominence and as such there was 
Sayyid Turab, who was celebrated for making traditional 
*kalamdsns*. The export items of the *papier-mache articles* 
were liable to government duty. But there is no definite 
statistical data available to show the volume of export and 
the amount of revenue obtained as duty by the government. 
Papier-mache articles of Kashmir found ready market in Kabul, 
France and various other countries in the third quarter of the 
nineteenth century.

It appears that owing to foreign demand and scale 
of production, the industry provided job avenues to a sizeable 
section of the people. Since it was a work which required 
skill and devotion, the urban people were more inclined 
towards this industry. About 300 families were engaged in 
papier-mache industry and the annual production was valued at 
about 50,000/- during the seventies of the nineteenth century.

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76. John Irwin, *Arts and Crafts*, p. 115. Sayyid Turab died 
in 1875 A.D.

77. R. H. Davis, *op. cit.* pp. CCXIX—CCCVI.


79. Census Report, 1921, Vol. XXII, pp. 183; *East and West*, 
p. 661.
The industry could no longer maintain its tempo of progress. The progress was obviously curtailed due to the France-Russian war of 1870 A.D., which affected the industry adversely. This industry suffered more than any other industry owing to the loss of foreign purchases, like other industries it too lost foreign markets. The famine of 1877-78 added fuel to the fire and the impact was more or less insufferable. Owing to these factors both production and demand diminished enormously.

The process of making papier-mache articles is very elaborate. For the preparation of various objects of papier-mache, the following stages were undertaken:

1. Preparation of Moulds;
2. Pulp and its application;
3. Colour and brush;
4. Design and motif.

I. Preparation of Moulds

For the preparation of papier-mache objects different types of moulds were made. Initially these moulds were prepared from the dry by the artisan himself. The dry being soft media and easily workable was given requisite shape. It was then allowed to dry for a few days in shade. Later the moulds were made of wood. This was normally done by skilled carpenters.

80 Lawrence, The Valley of Kashmir; p. 378.
81 The exposure of the dry mould to sun rays was avoided as it would expose the mould to the risk of formation of cracks, making the mould unfit for the purpose.
II. **Pulp and its application**

Pulp was most essential ingredient and it did not require any elaborate paraphernalia\(^{82}\) for the manufacture of paper-mache objects. Small pieces of paper were pasted with glue on a given mould\(^{83}\). Then the layer would be dried and second layer of paper would be pasted and left to dry. This way seven to eight layers would be placed one over the other keeping in view the thickness of the object. After this process pieces of muslin were wrapped over it and this was followed by a wash of "Gatch" consisting of old wall plaster and glue. The object was then left to dry.

The mortar and pestle were put to use for pounding\(^{84}\). The pulp passed through three pounding processes, each one tearing it to smaller threads. Between each stage and the next was the pulp taken out and placed on a kind of trough made by tying a length of cloth round the waists of two men and leaving a space of nearly six feet between them. The men then stood in a

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\(^{82}\) A wash tub containing nearly 20 to 25 kilogram of water, a few containers, a few pieces of wood to beat and soaked paper and rags, a mortar, a few pieces of linen, a basket and a space where the sun rays could reach was all that was needed for the purpose.

\(^{83}\) G. M. D. Sufi, *Islamic Culture in Kashmir*, p. 238.

\(^{84}\) The mortar in which the rags were pounded was made of lime-stone. The pestle had an iron head with four sides and in falling on the rags it chopped them up as these were fed under it by hand.
deep stream with the pulp deposited in the cloth between them in the water carefully ensuring the edges of the trough were above the surface. They agitated the pulp with their hands, so that the dirt passed through the mesh of the cloth. Between two washings the pulp was drained and then laid out in the sun to bleach.

On account of shortage of raw materials use was made of rags too. The waste paper sheets were left to be moistured in a tub of water for four to six days. Then the stuff taken out and squeezed with hands so that the absorbed water trickled down. The squeezed stuff was then pounded hard and for this the use of mortar and a wooden pestle was made. In second stage of the process rice wheat starch was added to the stuff. The quantity of the starch required for the purpose depended upon the quantity of the pulp. The starch was mixed so as to give softness and sticky quality to the material. But when the stuff was ready for conversion into the required shape, several layers were laid one over the other till the required thickness had been attained. This amount of work had to be done before the unfinished product lost its moisture. At this stage, smooth rubbing was done with the help of a stone of even surface. When the object was completely dry, it was cut into two or more sections depending upon the design of the mould with the help of a small saw. The article which was removed from the mould had to be rejoined and this was done with

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85. Pandit Anand Koul (updated by P. N. K. Bamzai), Geography of J&K State, p. 69.
the help of a thick glue. When the object was made secure, it was rubbed gently with a wooden filx called kethway in Kashmir. The surface was once again made even and angularities smoothened. Then a paste made of glue and chalk (old wall plaster) was applied to the object from inside and outside with the help of a brush. The glue and chalk coat gave the background for further glaze. When glue and chalk coat was dry, the craftsmen once again rubbed the surface even with a piece of even baked brick called kurrot. Small pieces of paper were pasted over it with the help of a glue in order to make the surface secure against cracks. Lastly, in this process, sand paper was used to give a smooth touch to the surface.

III. Colours

Colour was applied for two basic reasons in the manufacture of papier-mache objects—first as a protective and decorative agent and sometimes as a combination of both. The painting done on papier-mache was usually in distemper colours. These colours were made from pigments diluted in water.

96. Pandit Anand Koul (up-dated by P. N. K. Bamzai), Geography of J&K States p. 70.

97. The brush was made of goat's hair and sometimes of the hair taken from the neck of an ass. However, the most common was the brush made of goat's hair.

98. Pandit Anand Koul, (up-dated by P.N.K. Bamzai), Geography of J&K States p. 70. It is a Kashmiri term and Anand Koul has written it as kurkut.
to which some glue was added to get fixed to the ground on which it was used. Upon the consideration of colouring pattern had an important bearing. Three categories of colours were often used and these were: I. Minerals (both actual and artificial); II. Organic (both plant, insects, trees etc.) and III. Vegetables (as indigos). Pigments of stone or colt forms were tied in a bay and moistened with water and then beaten rough. The stuff was ground into paste on a slate and dried into powder on charcoal fire. The powder was mixed with amber and glue before it was immersed in sufficient quantity of water. It was then vigorously stirred and slowly poured into a clean vessel. The clear water would be poured off after the colour got settled. The sources for violet and blues were the indigo leaf and weed. For large and plain ground work black produced from semi-burnt cowdung was used. Three main colours were manufactured in Kashmir and these were blue, yellow and red. Red colour would be obtained from sea insects. The insect would be dried and then boiled to give the colour. The blue colour was obtained from arsenic. For green, again, a stone called sebza was brought from China or Ladakh.

89. The glue was a material extracted from bones, horns, hoofs, leather and skin.

90. William Moorcroft, Travels, Vol. III; pp 214-15; Yellow colour was made from the pigment called Zarnikh in Persian and Kashmiri. Red colour was obtained from a stone imported from China or Ladakh.
like red colour. White colour was also obtained indigenously from a pigment called Buawater. It was ground into powder and then the colour was prepared. For some other colours suitable combinations would be made depending upon what design or motif was to be painted.

Brushes:

Various types of brushes were used for painting the papier-mache objects ranging from coarse dusting brushes to those used for minute work. The bristle of the hair of cat, goat, ass as the case might be, were set in holders and handles of feather (quills) by means of silken threads. Inferior bristles were cut and trimmed up at the end and thereby rendered coarse and stiff. The varnish brushes were specially prepared to withstand the action of oils and were not always made to resist water as they were not supposed to be put into water.

Varnish:

It was a material of transparent or semitransparent appearance and was used as a protective agent and for getting high finish. Generally the use of it was made in papier-mache works. It is peculiar to note that the oil varnish dried up by


92. William Moorcroft, Travels, pp. 215-16; G. M. D. Sufi, Islamic Culture in Kashmir, p. 239.
absorption of oxygen in the atmosphere solidifying the
oil and forming a skin of preservative character. In Kashmir, vernish was produced locally by mixing linseed oil with gum, and both of these ingredients were available locally. Use of vernish was made in the third and final stage of the manufacture of papier-mache objects. Every care was taken when vernish was applied to the finished products. The object was to be free from dust and the temperature should be slightly warmer. Inferior vernish turned pale and created opaqueness to its minute paintings after a few years.

IV. Design and Motifs

The real art of a papier-mache craftsman lay in the painting in water-colour in numerous designs and motifs. The various artistic designs could be categorised as:

(a) Objects of nature; (b) Mythological figures; (c) Animals;
(d) Court scenes; (e) Hunting scenes; (f) Battle scenes.

It is obvious that the earliest and commonest design initiated by artists were drawn from the objects of nature. The first object to strike an artist's eye would naturally be

93. Ibid.,

94. Two of the coats of vernish were laid evenly and allowed to harden.

95. The kind of painting was called Zamin (base) in local terms.
mountains, rivers, forests, meadows, flowers, tall trees, trees laden with fruit. Most of these objects would form natural background for an artist and one would come across identical repetition of objects of nature in a particular setting.

Another object very common to artist was the animal life. The animal and bird serving as motifs, were put into two groups based on their frequency and animation with human beings. For instance the bulbul, the myna, the pigeon, the dove were to be found and seen very frequently and would naturally arrest the attention of an artist first. In the same way the lion, the horse, the lamb, the deer, the stag would also form objects of immediate observation. At the same time, scenes which the long and dreary winter of Kashmir presented were not neglected.

Some of the common designs adopted by Kashmiri artists in paper-mache works were as under-

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97. By and large the birds were used for imitation. The bulbul on a rose shrub formed the commonest theme.

98. Snow-clad peaks, frozen lakes, naked trees, rows of shikaras (small boats) with snow covered roofs, frozen water, the lonely dog in a deserted street, the tiny foot-path to a spring where from village women drew water, the mule carrying burden were the scenes which Kashmir winter offered.
In this design flocks of birds of one particular family were painted on the glued surface.

It was almost similar to the previous design and in this case painting was done in golden colours.

Flowers of various kinds and hues were painted in such a way as to create the impression of a large field or beds of flowers.

Circles were drawn on the surface of the model in definite measurements and symmetry. Inside the circles, work was done in gold ink. The space in between the circles was filled with flowers of multi-colours.

It was a kind of a design called Hazer which gave an attractive arrangement of various flowers but only in pink colour.

It was a strictly Kashmiri design. Though chiner tree was to be found in Iran also yet the frequency with which the chiner leaf had been made use of by our designers was not to be found anywhere else. Generally golden colour would be used in it. For instance if a design called Gander-cor-and was to be reproduced then the space covered by the inner circle and by the parallel and the supplementary circles, would be filled with impressions of chiner leaf.
WOOD CARVING AND BOAT MAKING:

WOOD CARVING:

Forests are a rich resource of this land. Rich and varied forest wealth has been utilized by the skilled workers of Kashmir from time immemorial. Wood-carving craft of Kashmir, has an artistic splendour with no parallel in the realm of handicrafts of the country. It is not merely a craft of utility, but one of profuse ornamentation, which extends even to ceiling, decoration inside houses and house-boats.

The history of this art dates from 15th century A.D. when Kashmir was ruled by the great patron and lover of arts and crafts, Sultan Zeinu'l-Abidin. Nothing is known about this industry till we come to 'Muslim Rule' in Kashmir. It appears that wood-carving flourished and received a great stimulus under the Sultans of Kashmir. All ancient Hindu buildings of Kashmir were of stone, but the mosques were of wood.

99. Kashmir Handicrafts, Govt. of Indis, p. 16; Craft, A quarterly devoted to Arts and Crafts of Jammu and Kashmir, p. 28.

100. Craft, A Quarterly devoted to Arts and Crafts of Jammu and Kashmir, p. 28; S. C. Ray, Early History and Culture of Kashmir, p. 127; Rajasthānī is silent about the wood carving and that is why S. C. Ray is of opinion that "in absence of any architectural specimens of wood-carpentry, it is not possible to make definite assertion on the point."

and some of these, such as the Shah Hamdan and Makhdum Sehieb of Srinagar show great dexterity in the carpenters craft. Thus it is clear that the art of wood-carving manifested itself in the decoration of ceilings, doors and windows of houses. The Muslim rule in Kashmir witnessed a positive shift from stone to wood in architecture and its embellishment. Later, however, with the coming of Europeans, the art found expression in making of furniture and other objects of household decoration items which became very popular in foreign markets. It is reported that carved wooden gate and facade at the coronation Darbar of King George V at Delhi, which was presented to him as monument of Kashmir art, was instrumental in popularising Kashmir wood-carving outside India.

The Kashmiris under the Sikhs were considered experts as far as the manufacture of wooden trays, turnery, ornamental carving in wood, ivory and mother-of-pearl was concerned. The Kashmir carpenter was a bad joiner, but as a designer he excelled.

102. Ibid.
During the Dogra rule wood-carpentry earned a great fame. A speciality in Kashmir wood-work, known as khutambend, has been mentioned by Lawrence in his work, *The Valley of Kashmir*, in these words:

"...beautiful ceiling of perfect design, cheap and effective, are made by a few carpenters, who with marvellous skill piece together their slices of pine-wood. The result is a charming ceiling in which the various shades of pine-slips blend together in perfect harmony."\(^{106}\)

Khutambend or paneling in various geometric designs applied to ceilings. These panels of pine-wood were made into various geometrical forms and fitted together in grooves. These cheap and effective ceilings were sometimes sent to India and England\(^{107}\). The best kind of ceiling work was known as Hazar Gerdan, Band-i-Ram, Hashtpehul, Cheherbakhsh and Dawaz bah-Gird\(^{108}\).

**Piniere or Lattice Work**

Various patterns were made on a geometric basis or floral designs and were very bold and effective\(^{109}\). The work was made of small laths so arranged as to form a pattern and...

\(^{106}\) Lawrence, *The Valley of Kashmir*, p. 379; *Kashmir Handicrafts*, Govt. of India, p. 16.

\(^{107}\) Lawrence, *The Valley of Kashmir*, p. 379; *Imperial Gazetteer of India*, p. 121.


\(^{109}\) Ibid., p. 93. Badhu or kair wood was used in the manufacture of piniere.
held in position by well fitted pressure exerting one
against another. Glue was seldom used. The best kind of
rinira work was known by the Kashmiri names of posh kandur,
cheher khene, sedha kandur, sheah-tez, shaab-sitara,
sheah pahlu, dewzdah-ser, isaffari isdan-shirin and tota
shashtez.

Carving:

This commenced with deep carving in floral designs,
but the modern patterns were realistic carvings in bold relief
of chiner, iris, water-lilies or rudiate bullrushes, with a
crevet deal of undercutting. One of the dominating ideas in
this art is that life and change are continuous, like flow
and ebb, grow and decay. This has its expression in rhythmic
sequence of crests and hollows. The walnut was stained and carved
in lotus flowers cut in section botanically or in the form of
iris, chiner leaves and branches or bunches of grapes or
pears standing half an inch over the surface, showing great
skill through little art. The latest is the Lhasa pattern.
The designs are multifarious and the chief ones can be discussed
precisely as under-

110. Ibid.,
111. Kashmir Handicrafts, Govt. of India; p. 16.
112. R. K. Bhan, Report on the Economic Survey of Wood-
carving Industry and Trade in Kashmir; p. 5.
I. Kashmir Floral Designs

In this the artist reproduced exactly some of the indigenous flowers, such as lotus, rose and iris.

II. Fruit or Tree Designs

Branches of grapes, almonds or pears or chinar leaves were reproduced.

III. Shawl Designs

These were copied from the designs of old types of embroidered shawls. These were of very fine quality.

IV. Lhasse Patterns

It was and is also very popular.

V. Crests and Monograms

VI. Electric Lamp Stand designs

These were of two categories:

a) Lotus shaped electric lamp stand

b) Dragon and cobra design electric lamp stand

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113. Ibid., The design of sun-flower is a recent introduction.

114. Ibid.,

115. Pandit Anand Koul, Geography of J&K State, p. 93. It was the latest introduction amongst the patterns of wood-carving.


117. Ibid., It was produced by Mohammad Joo of Fateh Kadal.
VII. A particularly fine type of work was produced which exhibited minutely small geometrical designs, called Mahen or Reskot work forms a class in itself and wonderfully attractive 118

Some people regretted this change from conventional to realistic art. But of these Sir George Watt says, "perhaps one of the most surprising features of the exhibition may be said to have been the avidity with which every bit of this modern Kashmir work was purchased" 119

An important question arises as to what were the forces that compelled an artist to depict various marvellous scenes. One of the richest sources of these designs was the natural phenomena. It is a fact that nature has endowed Kashmir with unrivelled scenery, a wealth of flowers, fruits, vegetation, waters and other beautiful objects which has ever excited the imagination of poets and artists. Many works of art were a wonderful copy of nature. The Kashmiri artist has been blessed with a keen sense of appreciation for artistic beauty and with the help of his fingers, he has been able to transmute his ideas into objects embodying art and beauty.

118. Ibid.,

wood-carving designs were a practical manifestation of his artistic bent of mind. Each piece of artistic work had an idea behind it, and the regular succession of the rest and hollows of a wood carved piece, it is said, represented the continuity of life with its ebb and flow. The defects in designs arose because of bad carpentry, wrong combination of raw material and overburdening an object with work.

Manufacturing Process:

The work was pursued on the basis of cottage industry. The unit of production used to be the workshop run by a master-craftsman who supplied the raw materials and tools. As a first step in the process of production the walnut wood was seasoned and worked upon by the carvers after being sewn into small planks and rectangular pieces. The carpenter worked upon the material placed before him and he gave to the material the required form. The designer drew upon the object an outline of the design to be produced. The carver came next and proceeded on with his work. The work was divided among workers with different degrees of efficiency.

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Seasoning was necessary. It could be done in two ways (a) natural and (b) artificial. Wood was to be left un-used for a number of years say two to five so that in the process it got seasoned in the natural course. The artificial seasoning was done with steaming. This process did not function well because it needed a lot of stock of wood for seasoning purposes.
highly skilled ones taking up the more complicated portion and the less skilled one the simpler part. The engraving work was similar to needle work. It went half an inch or less deep on the surface of wood. The carving involved different processes which were as under—

a. **Rough Engraving**

This was the first process of carving. The outline was drawn with the pencil and the process of engraving followed along the marked lines.

b. **Digging**

The digging was usually performed with the chisel.

c. **Shaping**

d. **Marking**

e. **Using sand paper and**
f. **Setting**

All this work of wood-carving was performed in the workshop maintained by the master-craftsman. He would usually obtain orders from the middle-men, dealers and would execute them.

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After manufacturing the article of wood-carving it was generally allowed to retain its original colour. At times the use of walnut juice or burnt turkey amber powder, was made. To bring brilliance to the surface of articles the use of masons potash and agate was made.

The important raw-material required for wood-carving was walnut wood. It was the most suitable wood because better results in carving could be obtained from the use of this kind of wood. The stuff also produced better finish and was more durable. It had a good natural colour and a carved article did not require any kind of paint or colour. The kail-wood was also brought to use sometimes for articles of carved furniture. Another category of wood known as hazelnut wood was used for filling in the interior of bigger articles.

The wood-carving was and is mainly done in Srinagar. Fateh-Kadal, Kade Kadal, Zaina Kadal and Safa Kadal used to be the main centres of work. The workers got settled originally in

123. Ibid., R.K. Bhan, Report on the Economic Survey of Wood-carving Industry and Trade in Kashmir, p. 3. There are two kinds of walnut-wood (a) garden and (b) jungle.


these parts of the valley and thus the industry got localised at these centres. The carvers worked either at their homes or at the workshops.

**BOAT MAKING**

Among the industries of Kashmir must be mentioned boat-building, which is indeed one of the most important in the country. The boat-making industry in Kashmir is an old one. According to *Ain-i-Akbari* boats were the chief means of transport in trade and commerce. The boats were, states H. W. Bellow in his work *Kashmir and Kashmir*, "well suited for the conveyance of heavy burdens on a smooth, but most dangerous craft on rough water." According to Tyndal Bisco "the Kashmiris have their own special way of building boats and very clever they are at their art, I have always been interested in boats and boat-building but I have never come across boat-built as in Kashmir." During our period of study the valley had the scarcity of metalled roads and the bulk of transport was carried on by the boats. Since boat traffic was the


mein transporting system in the valley every emphasis was
laid on its development. It is believed that in the year 1888
A.D. an Englishman, M. F. Kennard, conceived the idea of
"floating house" and thus the house-boat came to be introduced
in Kashmir for the first time.

There were different types of boats manufactured in
Kashmir and these used to be of all sizes. All these boats
had a flat bottom except perinda. The large boats were used
for the transport of grains and wood. This kind of boat was
called Bahats and had a prow and stern. Aft. used to be a
cabin with two rooms, in which the boatmen and his family lived,
and the hold in which the grains were stored was roofed in with
thatch. The smaller barge was known as War and this had a low
prow than that of the Bahats. The War carried a cargo of 400
maunds.

Another kind of boat was termed as Doonga and
every owner of the Doonga used to be eager to let his boat
out of the visitors. Usually, the Doonas were 50' to 60'
feet in length and 6' to 9' feet wide at the centre. These

Lawrence, The Valley of Kashmir, p. 381. S. Senyal,
The Boats and the Boatmen of Kashmir, p. 24. The Bahats
carried a cargo of 800 to 1,000 maunds.
132. Lawrence, The Valley of Kashmir, p. 381.
133. Ibid., S. Senyal, op. cit. p. 26. Doonas carried
passengers from one place to another on long journeys
and picnic trips to the Dal-lake. It used to be decorated
and properly maintained. This was a flat bottomed boat.
doongas were "walled and roofed with reed matting."

The roof being of several layers of matting and the matting of the walls arranged so that it could be rolled up to form a sort of a window. The boatman lived in the aft of the doongas and right there family had the kitchen with a hearth made of dried clay. The boatmen would rent-out the remaining portion of the boat to customers and tourists. In warm weather the life in doongas was very pleasant but during winter, when the passenger traffic was at a standstill, the doongas were used for transporting grain. The doongas boatmen used, like all other classes, to be subject to a tax.

The Shikara was a small boat. It was very convenient for short distance journeys and was rapidly paddled by one or more boatmen. The Khuchu was a heavy, clumsy boat without any roof, and was used for transporting stone and rough goods which


136. Ibid. A good and capable doonga would carry up to 200 maunds.

137. Ibid.,

138. S. Sanyal, The Boats and the Boatmen of Kashmir, pp. 24-25, 29. Q. M. General, Gazetteer of Kashmir and Ladakh; p. 13. Most of these boats used to be fitted with artificially embroidered cushions and spring seats.
were not subject to damage by rain. The **Dembaeo** was a tiny dugout in which vegetables were brought to the market. The amphibious denizens of the Dal-lake almost lived in the **Dembaeo**. The **tsakavar** used to be another small boat without a roof, only used on the wular. There are two rows of paddlers and they would cross the lake in all weathers.

The **perinda**, **larin eo** and **chakvari** were not for common herd, but were the dignified vehicles of the rulers of Kashmir. The **perinda** or flyer was a long, light boat with forty or fifty paddlers. In the front was a raised seat covered with a canopy in which four persons could sit. The **perinda** was the fastest craft on the Jhelum.

The raw material used in boat-building was available internally. Deodar wood, local nails and **kutha**, an indigenous fibre chiselled in the fittings, were all freely available. The labour and know-how used to be efficient and skilled. The average wage of a boat-carpenter was five rupees a day.

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141. Ibid., Lawrence, *The Valley of Kashmir*, pp 381-82; It is reported that the **tsakavar** boatmen were more courageous than the ordinary **hanjis** (boatmen).
142. Ibid.,
143. Lawrence, *The Valley of Kashmir*, p. 382.
Deodar used to be the basic and essential raw material for boat-building. It grew mostly in the north-west corner of Kashmir and used to be in great demand for houses and bridges in addition to boats. Boats made of Deodar were rarely painted. The natural colour and the sweet fragrance of the wood lent a charm of its own to the house-boat. Among other varieties of wood, the use of blue pine (kairu or var) was highly valued and was next to Deodar, owing to its strength and durability. The silver pine wood was particularly used for doors and window frames, ceiling and boxes. These trees usually measured 110 ft in height and 16 ft in girth. Another kind of wood known as poplar was also used. But the use of this wood was common in house-building. The wood of poplar is soft, white and suitable for carving.

A large community quite distinct in character, behaviour and temperament were engaged in boat industry. These people were known as Harijis (boatmen) and were an important and prominent class. It is not possible to obtain any information as

145. J. S. Dev, Natural Calamities of Jammu and Kashmir, pp. 8-9; It was the main item of export and was known for its durability, strength and resistance.


147. J. S. Dev, Natural Calamities of Jammu and Kashmir, pp. 8-9. This tree was found at a slightly higher elevation than the Deodar.

148. The silver pine-wood is free from knots and is very easy to work on.
to their origin, but the profession is very ancient.\textsuperscript{149}

But some claim Noah as their ancestor.\textsuperscript{150} The Hanjia were of vaisya caste and whenever they were blamed for bad paddling people would tell them "you are a shrdla."\textsuperscript{151} But before their conversion to Islam the Hanjia were reported to be Kshtriyas. The Hanji was so clever at his craft that he would emerge safe from the most risky situation. They were reported to be the deceitful and Lawrence states that Hanjia were rarely trusted because "they not only steal a portion of cargo, but often they spoil the whole of their grain consignments by water adulteration."\textsuperscript{152} Therefore, no one would entrust his grain to a boatmen if he could procure any other carrier. The boatmen of Kamraj, the northern end of the valley, were honest in comparison with the Hanjis of the rest of Kashmir.\textsuperscript{153} The Hanjia were a muscular, active, and hardy people. The small children commenced the work of towing or paddling at a very early age.

\textsuperscript{149} S. Sanyal, The Boats and the Boatmen of Kashmir, pp. 29; Lawrence, The Valley of Kashmir, pp. 382, 313.

\textsuperscript{150} Lawrence, The Valley of Kashmir, p. 313; G.M.D. Sufi, Islamic Culture in Kashmir, p. 243; Lawrence remarks that some Hanjia believe that they were gipsy in origin, and further says that Raja Parbat Sen introduced boatmen from Sanyeldip.

\textsuperscript{151} Ibid.,

\textsuperscript{152} S. Sanyal, The Boats and the Boatmen of Kashmir, p. 29.

\textsuperscript{153} Ibid. S. Sanyal, The Boats and the Boatmen of Kashmir, p. 29. The Hanjia had no excuse for their quarrelsome and lying disposition.
The father of the family was an autocrat, and while his sons and daughters remained on his boat all their earnings went to the father, who supplied them with food. There were many sub-sections of the Hanjis class. The first among these were the half-amphibious paddlers of the Dal-lake (Demb-Hans), who were vegetable gardeners. Another class of Hanjis were the boatmen of the Wular lake, who gathered the Sinchara nuts (Geri-Hans). Both these sections were treated with respect. Those who lived in large barges (babata) and were next in respectability. The less respectable were the owners of the Doonies or passenger boats. The worst of all the Doongas Hans are the Mar Hans, or the boatmen who ply on the Nala Mar. Then there were the Gad Hans (fishermen) who angled for fish. These surpassed even the Doonga Hans in their power of invective. Another small section of the class known as Hak Hans made their livelihood by dredging for

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155. Lawrence, The Valley of Kashmir, p. 313. Both the Demb Hans and Gad Hans held their heads high among other sections of Hanjis.

156. Ibid., These Doonga Hans prostituted their families, and owing to the dependence of the city on the river, they had a footing in nearly every family of means.

157. Ibid., p. 314.
drift-wood in the rivers. The Doong and Gad Hans were famous for their invective propensity, and for their vocabulary of abuse. In the quarrel the men did not participate but remained seated listening with interest to the dialogues of their women. At the night fell as the women got exhausted they inverted their rice baskets (paj), which signified that the quarrel has not ended but laid aside till morning, when the wordy warfare would recommence with fresh vigour.

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158. Lawrence, *The Valley of Kashmir*, p. 314, when as happened often, quarrel arose between two boats, one woman stood up on the prow of her boat and commenced a torrent of invective, to which one in the other boat promptly replied with a volley of abuse.

159. Ibid.,