

# Remembering the paper makers

Lahore  
Down  
20.12.03

THERE is no doubt that Gengis Khan wreaked havoc on Lahore, pillaging it, raping the women who did not manage to flee the walled city and butchered all able-bodied men who remained. But then if he can be said to have made one positive contribution that lasted, it certainly must be the introduction of paper to Lahore.

The Chinese were the first to use paper, an invention that goes back almost 2,000 years. In those days a thin strong fabric was used in the Punjab, as paper did not exist here. If you have ever seen the 'farmans' of old in the Lahore Museum, you will notice that the older ones are all on fabric. When Sher Shah Suri revolutionized the land record system, he made it compulsory for each 'patwarkhana' to have two fabric copies of the entire record of the relevant area. The tehsildar certified the copy with his seal and signature and kept the original. But then came paper, and paper came to Lahore from two routes: from Samarkand via Kashmir, and from the south, thanks to Arab traders who initially came to Multan. In both cases, the initial route was via Samarkand.

We have to thank the Mongols for forcing paper to come to Samarkand. The Chinese prisoners of war, brought to Samarkand after the battle of Atлах near Talas, first introduced (AD 751) the technique of paper-making from linen, flax or hemp rags based on methods used in China. Ibn Nadim observed in *Al-Fihrist*: "The Chinese write on paper made from a sort of herbage. The Arabs learnt the technique of paper-making from the Chinese captives at Samarkand and diffused it westward".

After the paper technology reached the Arabs, the latter improved the technique and supplemented linen with flax and other vegetable fibres. This was the beginning of the modern paper industry. With the conquest of Sindh by the Arabs, Khurasani paper was first introduced in the eighth century AD, and it continued to be imported for several centuries.

The paper-making industry in the sub-continent was established in Delhi and Lahore, the two chief political and cultural seats of the Sultanate period. Generally, Indian paper-making centre produced the glazed variety. One research categorises ancient paper into seven types — Kashmiri, Ahmedabadi,

Hederabadi, Faizabadi, Khasahi-Jahangiri or Lahori, Kanpuri and Aurangabadi.

While Kashmiri paper was stout and glazed, some Kashmiri centres produced superfine paper called silken. Khasahi-Jahangiri, or Lahori paper, was made here though later on Sialkot also acquired a reputation for quality paper. The paper was glossy, thin, polished and bluish white. The Lahori variety was a class product in that it was the most flexible of all papers produced in the sub-continent. However, one researcher thinks paper came to Sialkot from Kashmir and from there to Lahore, which also makes sense.

The oldest recipe for making Lahori paper has been described as follows: "To make the pulp, use old clothes, old tents, the bark of certain shrubs and trees. Wash well and soak in water for a few days. Beat these materials with wooden hammer. Mix the pulp with a little limewater. The mixture, when lifted out, would become paper".

The description further states: "Once removed, each sheet is drawn through a second reservoir of water and then hung up to dry in the sun. A quantity of gum Arabic was dissolved in water and then the beaten pulp was placed. The water in the second reservoir, through which the sheets were drawn, also contained gum in the form of mucilage, as well as some alum dissolved in it. The moulds or forms used by the workmen were generally made of bamboo. The gum Arabic was obtained as an exudation from the *babool* tree".

In the old Indian technique of paper-making, the main tools used were: *dhegi* (hammer), *chhapri* (screen), and *sacha* (teakwood frame), *kunchawas* (soft date-palm brush), and polishing stone. One expert describes the process: "The process of making paper from such pulp was not very difficult. The pulp was moistened with water, taken to the river Ravi and pounded with stones, and washed for three days. It was then taken to a cistern about 7ft x 4ft x 4ft deep, half-filled with water. The pulp was thrown into this cistern.

"When it was thoroughly dissolved, the workman sitting on the edge of the pit, bending over the water, took in both hands the square frame which held the screen serving as a sieve, passed it underwater and drew it slowly and evenly to the surface; such that as the water passed through,

a uniform film of pulp was left on the screen. The screen was then lifted up and turned over, and the film of paper was spread on a rag cushion. When sufficient layers had been heaped on this cushion, about 9-14 inches high, a rag was spread over them and a plank weighted with heavy stones was laid over it.

"When this pressure had drained the water and some of the moisture out of the stock of paper, the stones were taken away and two men, one standing at each end of the plank, sawed over the bundle of paper by hand. When it was well pressed, the paper was peeled off, layer after layer, and spread to dry either on the walls of the building or on rags laid in the sun. When dried, each sheet was laid on the polished wooden board and rubbed with a shell till it shone".

In this way, paper was made on the banks of the River Ravi, as it was on the Indus near Multan. In the Punjab, very fine quality paper began to evolve, thanks to the use of cotton, though normally the last pick, slightly rusty in colour, was used.

One researcher claims that paper came to Lahore before it had reached the Arabs. But no matter how it came, there is no disputing that this is the one contribution to learning that Gengis Khan unwittingly made. It would take another 600 years before printing on paper started in the sub-continent, with the 16 pages of *Doctrina Christina* in Tamil by Fr Henriques and Fr Manoel de Sao Pedro. This was printed in the Malabar coast in 1578. This little work, known only from one copy in existence, is the earliest example of printing in the characters of one of the languages of India.

The 16 pages of *Doctrina Christina* are printed on a single sheet, in conventional octavo format, the pages measuring approximately 14x10 cm. It is the famous Khasahi-Jahangiri, or Lahori paper, which goes to show the immense contribution to the fast evolving industrial world that the sub-continent was becoming before it was colonized and thrown into mass poverty. Because of the alum used, it is still intact, a remarkable contribution of the local genius of Lahore. There is need to recognize the early paper-makers of Lahore and Sialkot, for they in no small measure contributed to the spread of knowledge. — MAJID SHEIKH