

*Cost estimation and
Technology of Banaras
Hand loom [Pit loom]*



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Introduction:

Handlooms are widely used across India to produce silk fabric. Varanasi silk fabric especially banarasi silk sarees are widely popular in the country as well as in outside world for its uniqueness in design and brilliant look. Varieties of popular designs are produced by the expert weavers of Varanasi such as Katan, Satin, Chiffon etc., using handloom usually termed as pit loom. There are approximately 34000 numbers of pit loom available in Varanasi which is most specific in construction and mode of operation of the loom differs from handlooms available in other part of the country. The uniqueness of these loom is the production of specific design with 3/4 different weft thread and are popularly known as Varanasi design. Although Varanasi pit loom is very popular amongst the weavers of these areas, the information regarding technical specification material used and costing of these looms are not available for further study. Therefore a survey across Varanasi has been done for cost estimation and technical details of Varanasi handloom and the finding are presented in this paper.

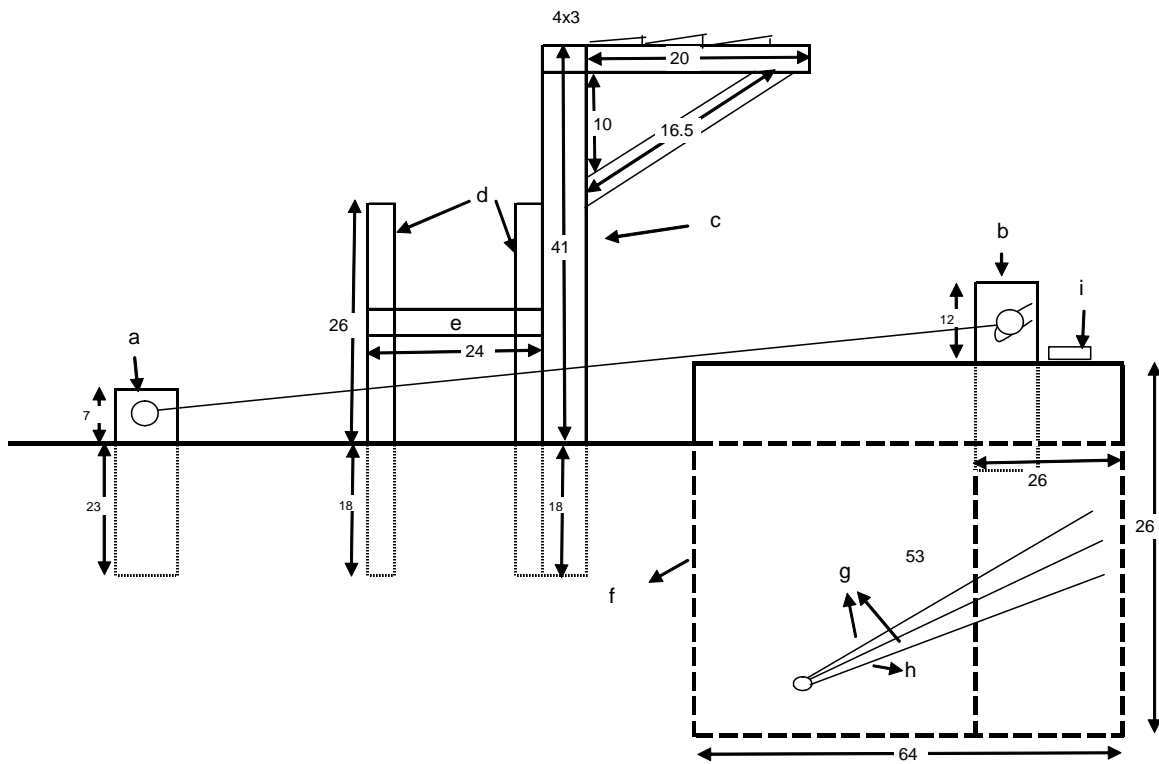
The survey period is from the month of September 2010 to October 2010. Areas visited are Lohta, Natiimili Kotwan, Ramangar, Saranth, Hirayanpur, Pandeypur, Bikapur (Jagatpur), Bajardiya, and Pili Koti.

Figure 1 shows the photograph of the Banaras handloom popularly known as pit loom and Figure 1 (a) shows the line diagram (side view)



Figure 1: Photograph of Varanasi [Banaras] Handloom (Pit loom)

Figure 1 (a): SIDE VIEW OF PIT LOOM



**The dimensions are in inches.*

- a) Warp beam
- b) Cloth beam
- c) Sley stand
- d) Pagia stomes (Jala's tied at both ends)
- e) Thread Holder
- f) Pit
- g) Heald shaft treadles
- h) Jacquard treadles
- i) Weavers Seat.

Table 1 shows technical details of material used, no.s and cost estimation of the loom.

Table 1: Technical details along with cost of the component of Banaras Handloom

Part	No. of units	Material used	Cost
Cloth beam Holders (Kunta)	2	Wood: Sakua	1000
Warp beam Holders (Kunta)	2	Wood: Sakua	1000
Sley Stand	2	Wood: Sakua	3000
Jala Frame	4	Stone : Local	400
Sley unit	1	Wooden sley (swing beat-up) throw shuttle type: Wood: Sakua	1200
Reed with Heald shafts	1 set	Steel reed along with Heald shafts. Staves made up of sakua wood and consists maximum of 2200 nylon wires in each shaft.	1550
Shuttles	2	Buffalo horn	0100
Pirns	1 gross	Plastic pirns of 4"	0050
Cloth Roller	1	Sakua wood – 1 No. with MS rod of 5/8 " dia and 18 " length	2600
Warp Roller	2	Sakua wood – 1 No. with MS rod of 5/8 " dia and 18 " length	4000
Lease Rod	2	aluminum lease rods	0100
Weaver's Seat	1	Sakua wood 35" X 5.5" X 1"	1400
Peddles for heald shaft with stand and grate.	2	Bamboo	0400
Temple		Sakua wood	0100
Heald shaft dead weight (stones of 2 kgs each) –	4 Nos	Stones	0200
Total			Rs 17100

Jacquard:

• 240 hooks Jacquard (wooden frames) – 1 No	3000
• Harness threads – Nylon - 1 kg,	0200
• Cotton – 1/2 kg	0050
• Clips– 400 no.s	0200
• Bamboo peddle and wooden (Sakua) Jacquard lifting lever	0200
• Bamboo for tying Pagiya – 2 Nos.	0100
• Deadweight for jacquard (Metal) – 2 Nos.	0150
• Cards (250 nos.)	0500
Subtotal	4400

Total estimate cost of Varanasi (Banaras) Loom with Jacquard +
Installation cost = Rs 17,100 + Rs 4400 + 1500 = Rs **23000=00**

It is clear from the table that cost of the loom is low compared to other looms (power and shuttleless) and currently approx. 55000 weavers are existing to operate these looms that need skill. Designs produced are unique, nowhere available in other states of India.

The designs produced are based on family tradition, imaginary/own thoughts, historical monuments, plants, animals etc., Fabrics made up of Silk and Gold/Silver; Gold/Silver coated threads are popular, attractive and costlier and require 1 - 3 months for production of silk saree/fabric with unique simple/complicated design.

Conclusion:

There are many types and varieties of wood are available (Sakua, Sagu, neem Liptus, etc), for making Varanasi (Banaras) hand loom which decides life of it. Use of Sakua/Sagu yields better life and less maintenance. Therefore this wood is preferred for construction of the looms. The cost of the loom may vary depending on the material used as well as the place of manufacturing. The major advantages of the loom are manifold. The uniqueness of these looms

are the production of specific design (imaginary, own creations/thoughts etc.) using different colour weft threads and lifting of warp with Jala (Nylon/ Cotton threads). The designs produced are simple or complicated that are perfect in appearance with less/no distortion which catches the heart of the viewer. But handlooms especially of Varanasi are the best to produce design that are incomparable with any other type of loom for which special skill is needed and cost of the loom is low compare to latest looms.