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Pethapur Block Making

Documentation of the fine craft of Block Making by

Arinjit Das and Prof. Ravi Poovaiah IDC, IIT Bombay

Source:

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About

India is known the world over for its rich cultural heritage and the depth and variety of arts and crafts. These arts and crafts thrived under the erstwhile patronage of royalty, aristocracy, and the privileged class. Over the years, with the advent of industrialization and rapid growth of mechanical processes substitutes, many of these arts and crafts have languished or have passed into oblivion primarily due to dwindling endorsement of traditional formats.

The art of block making is one such craft that has increasingly lost its earlier standing and appeal as an outcome of reduced demand for traditional block-printed textiles that have gradually ceded ground to automated versions of printed textiles, mostly in the form of the cheaper and easier-to-produce screen and digital prints. The diminishing presence of block-printed fabrics and its associated decline of block-making marks our nation's incredible craft legacy's demise.

Pethapur, however, still stands as a reduced but proud icon of wooden block-making in India, keeping alive a tradition that had its roots in the 18th century. The block-makers in Pethapur continue to be associated with other traditional forms of craft traditions such as Ajrakh and Saudagiri prints. The motifs used have evolved over the years from depicting nature and village life to contemporary motifs dictated purely by changing market demands and preferences. In many instances, it reflects a blend of Indian artistry and Western influence. The earlier bustling production centers have transformed into isolated pockets of the odd craftsman still carrying on the craft.

There is not much documentation available on the art of block-making, especially concerning the process. However, one does find instances of the final products or blocks being recorded in archives or photographic documents. The documentation method of block-making undertakes a relatively uncharted pathway of recording the processes involved through first-hand and extensive interaction with the Pethapur block-making masters. This project is the first of many attempts to preserve the legacy of this most intricate and priceless art. It records major categories of designs and motifs according to their characteristic traits, including visual examples of designs and motifs more than a century old.

The stagnation of the craft of block-making can perhaps be transformed through concerted and collaborative efforts to document and preserve design archives and ensure institutional support for the remaining artisans, including sensitization towards entrepreneurship and contemporary design and market trends.

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A Floral Block-print from Bagru, Rajasthan

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Place

Pethapur

Pethapur lies about 8 km north of Gandhinagar's capital city and can be reached in about 15 minutes by car or one of the many shuttle autos and buses that ply between the two locations. Legend has it that the village was founded by a Vaghela Rajput about 1,000 years ago who set up 'Pruthupur,' named after his uncle Pruthuraj. The Rajput, the legend says, had killed Pruthuraj in an attempt to usurp the throne and was advised by him to set up a city in his name in a dream.

Though it has been described as a village in the preceding sections and still referred to as one by the local population, Pethapur is a village only in name today. Over time, it has grown into a small town that is a curious blend of the old and the new, with old tin-roofed houses and modern apartment buildings and 'shopping malls' juxtaposed next to each other.

Life in Pethapur revolves around the 'chowkdi' or circle where the road connecting it to the highway meets the primary market and retreats in the same direction it comes from. The entire 'village' spreads out from this central nucleus in erratic branches. Low-rise houses not more than three stories high make up much of its jagged skyline with the odd network tower or temple shikhara sticking out. Despite its growth and current status as a town, people seem to know practically everyone just like they would in a small village. The place has jovial energy about it and walking down its streets, and one may hear anything from loud conversation and laughter to autotuned Gujarati folk music and bhajans.

The residents of Pethapur are proud people, though its claims to fame lay largely in the past. At one time, however, it was famous for the triad of biba (blockmaking), beedi (Indian cigarettes), bandook (guns), which were the main exports of Pethapur (though one may also add Bandhani saris to the list). Block-making, sadly, is no longer practiced on the same scale, and the latter to have disappeared completely.

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Pethapur Block Making

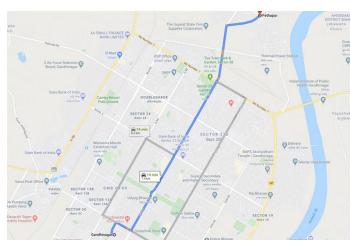
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The village of Pethapur lies about 8 km or 15 minutes The chaotic m away by car from the Gujarat's capital city Gandhinagar. village centre. Screen grab from Google Maps.



The chaotic mandi of Pethapur, a short walk from the village centre.



The streets and people of Pethapur.



The streets and people of Pethapur.

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Block Printing

The Sister Craft to Block Making:

The art of block-making was born and has grown over the years with block-printing on textiles. The process essentially involves impressing a wooden block dipped in dye upon the fabric and repeated over a pattern to produce beautiful printed textiles.

Edwards (2016) contends that there is no distinct historical trace of block printing origins in India, and its origins remain mostly elusive. Block printing is considered to have originated in China during the T'ang Dynasty (618-907 A.D.) to reproduce text and illustrations (Britannica, 2015) mechanically. The matter to be printed was engraved in wooden blocks, which were inked and pressed onto paper to create the desired impressions. In contrast, printing on textiles preceded printing on paper in India, Egypt, and Europe (Chopra et al., 2011). The method used for textile printing was the same as that used for paper printing – inked blocks were pressed onto the fabric surface to achieve the required print patterns. In this method, a primary block impression is repeated on the fabric surface to complete the design across the selected fabric area (Kaur et al., 2013). According to Edwards (2016), clear evidence of block printing emerges only from around the medieval period, with the earliest proof emerging from Egypt and Indonesia.

History of Block Printing in India:

Origins of block-making and block-printing in India have been traced back to Gujarat in the west and Andhra Pradesh in the south. Historical evidence suggesting that block printing in India had been in practice as far back as 3000 BC and was being exported to China as early as 4th century B.C., as recorded by Robinson (1969).

Although material evidence of block printed fabrics have been found in the ruins of Mohenjo Daro, the famous city of the ancient Indus Valley Civilisation (circa 3000 B.C.), block printed textiles in India gained prominence only around the 12th century A.D., mostly as statecraft under royal patronage (Hobbins,2007). Surat, in Gujarat, was one of the earliest centers where printed and painted textiles found their own identity and distinction (The Art of Block Printing, 2015). Surat is one of India's most prominent textile-producing centers known for sarees, printed dress material, and home furnishings. Gujarat has a long coastline. Its multiple ports and the vibrant trading network of the Indian Ocean gave it a natural advantage in promoting the commercial success of printed textiles. Most of these prints were based on designs and patterns from the Middle East, so the fabrics were printed in India and shipped to the Middle East (Chopra et al., 2011).

Designs such as the one in Figure 2 have the most in common with contemporary Ajrakh designs (possibly derived from the Arabic word Azraq, which means blue). Some of the fragments found in Fustat, Egypt, from the 15th and 16th centuries resemble typical Ajrakh designs. Ajrakh prints consist of symmetrical geometrical patterns made of squares, stars, circles, and ellipses rendered in red, blue, and white created with resist and mordant techniques (Dua, 2016), similar to the methods used to develop the Fustat fragments (Williamson, 2016).

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According to popular legend, as documented by Dua (2016), the art of Ajrakh printing made its way from Sind to Dhamadka in Kutch in 1586 with the forefathers of present-day Kutchi printers at the behest of Raja Bharmal I. This is consistent with legends that claim block-printing came to Gujarat first through the Sind region, having originated in Iran in the Mughal period. The printing would be done by members of the Khatri community in Kutch, and the blocks would be made by the Gajjar and Suthar community of Pethapur (Dua, 2016).

In the mid-19th century, similar trade also happened with clients from Thailand (Siam). The emergence of such trade eventually gave rise to what is known as 'Saudagiri' prints, the name being derived from the Persian word sauda, which means "to trade" (Sunanda, 2009). The Siamese people would refer to it as 'Pha Gujarat' ('Pha' means cloth) and use it as a lower garment. Saudagiri printing happened primarily in Ahmedabad, and the production of the blocks would be done by the master craftsmen of Pethapur (Bhatia & Bhatt, 2017). They still maintain extensive collections of Saudagiri designs.



Block-printed Textile fragment from 16th Century India, probably Gujarat, found in erstwhile Fustat, Egypt. (Williamson, 2016)



Modern-day recreation of a Fustat print by Ajrakh print- A Saudagiri block by Dahyabhai Prajapati and Chetaner Ismail Mohammad Khatri of Kutch (Clifford, 2012).



bhai Prajapati.

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Printing in Other Parts of India:

Due to a host of reasons such as the emergence of new trade routes, the founding of new cities (which would later act as major craft centers), and lack of work in their places of origin, trained artisans migrated to other parts the country. Cities such as Sanganer and Bagru in Rajasthan (both near Jaipur) and Farrukhabad in Uttar Pradesh became home to them, gaining eminence under royal patronage after the 17th century. The artisans involved in the carving of wooden blocks of Gujarat, Rajasthan, and Uttar Pradesh were believed to be influenced by Kashmir's Muslim woodcarvers Saharanpur (RUDA, 2011).

Despite such migrations, the eminence of Pethapur remained, and it is believed that at least some of those who migrated to Rajasthan was initially based in Gujarat. Historical references to the craft of block-printing invariably mention Pethapur, however briefly, as the source of the blocks hinting at the influence of Pethapur on major centers. The table below summarizes some of India's major block-printing centers, which, despite their similarities, had some distinct, distinguishing features.

Centre	Typical Fabric Background	Distinguishing Features
Ahmedabad (Gujarat)	White	Floral motifs, Khari
Kutchh (Gujarat)	Indigo	Geometric shapes, ellipses, stars, circles, dots
Bagh (Madhya Pradesh)	White, Red	Floral and Geometric (line) motifs
Sanganer (Rajasthan)	White and Pastel Colors	Floral conical and petal patterns, Symmetrical borders
Bagru (Rajasthan)	Red and black, rich vibrant colors	Vegetable, Flower, Flora and Fauna motifs
Farrukhabad (Uttar Pradesh)	Subdued background, printed in solid colours	Fineness of blocks and intricacy of design, paisley, "tree of life", polka dot motifs
Varanasi (Uttar Pradesh)	Mostly silk fabrics	Multiple colours, sometimes upto 6-7 colours

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Block Making

History of Block Making in Pethapur.

Though written documentation is sparse, the craft of blockmaking is believed to have taken root in Pethapur sometime in the 18th century. The art was brought to the village by people of the Gujjar Suthar tribe who were carpenters by profession constructing buildings, making furniture, agricultural implements, etc. While their regular work was seasonal, block-making provided a more stable, year-round income source and had better returns. The low cost of living in Pethapur and the availability of more space for workshops are other reasons that may have contributed to the craftspersons settling in Pethapur (Trivedi, 1961).

The block-makers chiefly serviced the Ajrakh block-printers of Kutch and the Saudagiri printers of Ahmedabad, both of which are characterized by different kinds of motifs adept at creating the distinct styles of the two traditions. However, their skills and dexterity also extended to creating images of village life and naturescapes that looked like those painted by a brush (Bhatia & Bhatt, 2017). Examining old prints in possession of surviving crafts persons also hints at Western influences, with motifs of flowers and depictions of people with more in common with prints from 18th century England than more traditionally Indian designs.

This might be explained by the fact that while block-makers did design their motifs and patterns for printers to select, they acted as skilled labor for hire who carved blocks out of the prints that were supplied by the printers based on what the market demanded, and as such, provided blocks to many printers based in different block-printing centers due to their reputation as the best of the best.

At its peak, the craft of block-making was practiced by anywhere from 200 to 300 people working in large workshops together instead of small spaces at home now. According to local legends, Pethapur was known to have reverberated with the sounds of metal clicking on wood from the craftspersons' activity. Accounts from Dahyabhai Prajapati and Govindhbhai Prajapati, the senior-most craftsmen in the village, suggest a progression system for young men who wished to pick up block-making as a trade. Apprentices would learn by observation, work directly with their mentors, and serve their attendant needs.

Workshops had often resembled a production line, where different craftspersons would work on a block at different stages and pass it down to the next person, though it was just typical for one to work on a single block from start to finish. Families that owned the workshops employed skilled family members for etching and engraving, while hired workers cut the blocks to size, ground the blocks, and prepared them for engraving. Unfortunately, women had never been involved in the craft, and no account would suggest as much.

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Pethapur Block Making

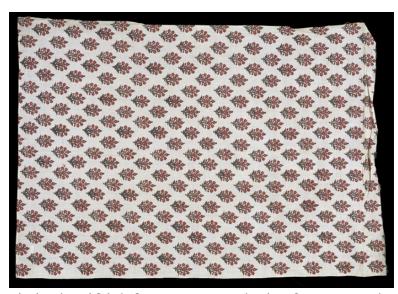
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Block-Printed fabric from Sanganer, Rajasthan from ca. 1850 in possession of the Victoria and Albert Museum, London. The description of the exhibit mentions that "the most highly esteemed blocks are traditionally those made in Pethapur in Gujarat."

The Decline of Block Making in Pethapur:

The craft thrived for a long time, making the village of Pethapur known for this craft until the mass-scale screen and machine printing arrived in the mid-20th century. Scores of textiles mills - predominantly machine-driven – cropped up in places such as Ahmedabad, which provided cheaper and faster production means. Both the block-printing and block-making communities experienced insurmountable competition due to the pace and volume at which industrial mills produced textile products, leading to the twin decline of textile traditions such as Saudagiri in Ahmedabad and that of its sister-craft of block-making in Pethapur (Bhatia, 2014).

According to Bhatia (2014), another cause of block-making's downfall may have been the rising cost of wood that made it difficult for block-makers to afford the raw material needed for their work. This would surely have led to increases in the price of block-printed textiles, resulting in less demand than machine-printed textiles, which led to a decrease in the work available for block-makers, thus triggering a negative feedback loop.

From a high of 300-odd artisans in the village at its peak, only a handful of them remains today. According to a census report published in 1961, at least 132 craftsmen were practicing in the village. Still, today there are only 21 of them, a number that keeps dwindling due to the craft's lack of economic opportunity. What remains of the craft paints a sad picture of lack of enough initiative from the government and recognition of handicrafts by the Indian market.

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Efforts are underway by patrons and people who appreciate the craft to preserve it through documentation efforts and protecting the work of artisans and giving them due recognition, such as the recent Geographical Indication (G.I.) Certification of block-making in Pethapur courtesy of Gujarat Council on Science and Technology.



Shri Dahyabhai Prajapati, 78, is one of the seniormost and last remaining master craftsmen in Pethapur, a living vessel for knowledge of this craft.

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Raw Materials

Blocks made in Pethapur are carved out exclusively from Teak wood (Tectona grandis), known to locals as Saag or Saagwan, that grows in Gujarat's deciduous forests, notably around Surat and Valsad. Teak is an excellent choice for most woodworking applications and the best suited for blockmaking by a long stretch.

The wood has a natural golden yellow color that turns darker and darker over time, from light brown initially to almost black with age, elevating the block's appearance. The wood strikes an outstanding balance between hardness and durability on the one hand and ease of working with chiseling tools on the other since there are no fibers in it. This is an important quality since the almost wafer-thin edges on some designs cannot be achieved if the wood is too soft and harder woods are difficult to carve delicate designs out of.



An unpolished block of raw teak wood that has been dried for use in block-making. The wood has a golden-yellow color as is characteristic of wood that has been dried but is not too old. One may notice that the wood was cut from a tree that was fairly old and mature. The wider the spacings of the rings, the better the wood is for carving. Craftspersons also selecct wood depending on the fineness of the designs. The denser the grain of the wood, the more intricate the designs can be. The wood must also have as few cracks or holes as possible.

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The wood also contains natural oils, which give the wood more than just a pleasant smell. The natural oil repels insects and limits the amount of water the wood absorbs, keeping it from warping during the printing process. That, along with the wood's hardness, lends to its durability, making blocks suitable for printing over thousands of cycles and many, many years. The wood has to be wrapped and stored for a year or more to dry before it can be used.

In the past, craftsmen procured timber coming from Valsad's forests, which were famous for quality Teak wood, and from those around Surat. Craftsmen also used to have a cooperative society that purchased wood for the community at competitive prices, but no such cooperative exists in the present day.

Due to government regulations on lumbering, the rising price of timber, and a shortage of teak in the market, procuring fresh wood for the blocks has become difficult. However, master craftsman Govindbhai Prajapati has maintained a carefully stored stockpile of fresh wood over the years. However, the new norm is to procure teak at auctions of wood salvaged from the demolition of old buildings, which is how the majority of craftsmen procure their wood at the moment. Wood salvaged from these old buildings is naturally dried over the years, making it perfect for block-making. It can perhaps be considered a more ecologically sustainable source of raw material for the craft.



Collection of smaller pieces of wood, also procured from auctions, at Mukesh bhai Prajapati's workshop. One may notice that some of these blocks are smaller than full slabs. These may have been the extras from previous blocks and are stored to be reused to make smaller blocks or border blocks, which are thinner in width.

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Master Craftsman Govind bhai Prajapati selects a block of teak procured from a lumberyard and stored to dry over years.



Chetan bhai Prajapati's store of teak wood procured from auctions of wood from razed buildings. Such wood can be identified by the paint that was on the beams, seen here on the sides of the wood blocks. The cost of each slab of wood comes to anywhere from Rs. 150 to Rs. 300 depending on the quality of the wood and auction.

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Making Process

The process of creating a carved block from a solid hunk of teak wood employs a panoply of tools that the craftsperson must master. Some tools are employed in preparing the block before and after carving, tools that are used to carve the block itself, and a few other implements that act in support.

Preparation of the Block:

The first step in the process is to cut adequately seasoned wood roughly to the design's size, filed with a number of files and tools, and then be polished in preparation for the etching process. Through a recent change, the first round of leveling is done with a sanding machine, after which a Randha (carpenter's plane) and hand files are used.



Freshly sawn wood roughly in the proportion of the design to be carved.

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Leveling tools such as Randha, hand files, and sanding machine.



Leveling the block with a hand file on a wooden slab designed to hold the block in place.

Figures show the process of how an uneven piece of wood is made level through the process of sanding, filing, and polishing, which is a crucial first step. If there are any mistakes in these processes and the block remains uneven, the design would not press upon the fabric evenly and subsequent steps in the process rendered pointless.

The river stone used in the figure is a rarity now. Artisans are always on the lookout for the polishing stone, made wet and layered with a crushed rock before grinding the block on it in large circular strokes. This step is demanding but remains an integral part of the process.



Artisans must check the uniformity of the surface after every round of filing and leveling, done usually with a thick steel scale.



Polishing the leveled block on a river A leveled and polished block ready stone.



for the next step in the process, that is, etching.

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Etching of the Block:

The second step in the process is to etch the design onto the block and is called Tipai. After polishing, the craftsmen apply a thin coating of white poster color diluted with water (which used to be lime paste in the past) against which the minute etchings would appear.



Applying a thin coat of white poster paint on the surface of the block.

Poster paints have replaced lime paste since they do not need to be prepared and give the surface a smooth finish. Craftsmen still apply this with their fingers through and have to be careful about the coat's thickness. Overly thick layers peel off, and overly thin layers make it difficult to see the etchings.

Once the paint has dried, an impression (or drawing if its the first time a design is being made) of the intended design is affixed to the wooden block with small nail-like tools called Tichaniya and lightly traced with tools similar to the carving tools but slightly more blunt that are called Tipai ke Takne.

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Pethapur Block Making

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Applying a thin coat of white poster paint on the surface of the block.

After the design has been lightly traced on the block, the craftsman gives it a once-over with the same Tipai ke Takne in a variety of shapes of sizes: from the straight-edged ones to ones with a curved carving edge in a range of sizes in a process called Pakka Karna ('Making the Lines Solid').



The Tipai process is done with tools similar to the carving chisels (called 'Takne'). The wooden mallet seen here in Chetanbhai's left hand is also a lighter, smaller version of the mallet used for chiseling to allow for quick, light hammering action. The etching has to be deep enough to be visible to the craftsman while engraving but not so deep as to create chips in the edges of the final design. One may also notice etching tools of varying sizes on the artisan's stool. A skilled artisan should be able to select the right sized Takna from those available to them to trace the designs with.

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Drilling of the Block:

Once the design is etched, the artisan drills hole around the edges of the design. This is called 'Saarna' and achieved with differently-sized drills called Saedi or Saar, which resembles an ice pick except with a three-pronged trident drilling point.



Holes being drilled along the edges of the design.

A long stick of wood supports the Saedi with its end strung together with a long, loose string called Kaamthi. This string is wrapped around the Saedi twice or thrice, which makes the Saedi rotate when pulled. The Saedi's head lodges into the hemispherical cavity of a hard, smooth piece of Imli (Tamarind) wood that acts as a swivel for the Saedi and is called the Mathaa. Suppose the artisan is right-handed; he pulls the string wrapped around his fingers with his right hand and supports the Saedi lodged into the cavity of the Mathaa with his left hand, letting the Saedi freely rotate back and forth.

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A Matha (top left), A Kaamthi (bottom left) and a Saedi (Right), the three essential tools for the process of drilling holes. The middle spike acts as the axis of rotation for the Saedi and the outer two do the removal of wood. Notice the marks near the tip of the Saedi - these indicate how deep the holes need to be and are made with a small hand file with a triangular cross-section called 'Kanas'.





Connecting the Holes:

The holes once drilled are 'connected' by removing the thin walls of wood separating them, which is achieved by flattening them with a flat-edged iron tool called the Thassa. The Thassa is struck with force by a heavy, wooden beam acting as a mallet called the Thapri.



The wood between the holes being flattened by the artisan.



The artisan connecting the holes of the block with a heavy Thapri. The artisan must apply enough force to push the wood down to the bottom.

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A collection of flat-ended Thassas of varying sizes.



A block with the holes connected and the inner corners cleared with a sharp Nakhya.



A heavy Thapri used for beating down wood and chiseling.



A Nakhya: The V-shaped end tapering into a sharp point allows the craftsmen to get into the corners and sharpen their appearance.

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The artisan tries to achieve an even 'floor' at the bottom of the holes to connect them. An intermittent step between this and the next is removing the wood between the inner nooks and corners of the motif with a tool that has a sharp, V-shaped end called the Nakhya.

Chipping Away Excess Wood:

The excess wood around outside the design is chipped and shaved away in a process called 'Phurdah Girana'. The tool used to accomplish this has a thick, angled cutting blade called a Farsi.

The artisan first creates a groove along the block's sides at the required depth of the design. Starting at the edges, he chips away at the excess wood with the sharp edge of the Farsi, which collapses due to the groove underneath. Resting it on the angled side, he hammers the Farsi to shave away the chips so created, letting the Farsi 'glide' over the new surface. Alternating between chipping away wafers and hammering them out with the Farsi, he is able to remove the excess wood.



Farsis used for the chipping of excess wood.



Marking the depth of the block with a saw, an important step.

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Making such a groove allows the edge to chip off.



Chipping Motion: Chipping away with the sharp edge of the Farsi.



Gliding Motion: The artisan rests the Farsi on the angled face and hammers out the thin wafers of wood created from the chipping.



The motif without the excess wood on the side.

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Final Carving of the Design:

The most important and penultimate step of the process is the final carving out of the design, which is known as Gadhai. The Gadhai process is achieved with an extensive range of Takne (plural for Takna).

Primarily there are two kinds of Takne, a Chaursi, a sharp, straight-edged chisel for straight lines and the outer edge of curves, and a Gol Punthia, for the inner edges of curves. One thing to note here is that regardless of how small a role a tool may have, it has a name.

The carving is actually done in two rounds. The excess wood around the motif is not shaved entirely in one go. This is to prevent damage to the motif's edges and preserve their sharpness. The excess acts as a 'buffer' against the chisels' motion, and it is also easier to shave away the wood the thinner it becomes. The right-handed artisan hammers with a Thapri in his left hand and the chisel held in his left, letting it 'dance' up and down around the edges with the hammer to remove the remaining excess. Every so often, the artisan would also scoop out the Kucha or waste wood with his Takna.



Chetanbhai carving out the edges of the designs, a process that the craftsmen also refer to as 'Safai' which means cleaning up.



The inner edge of a curve being cleaned with a Gol Punthia or rounded Takna.

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Of all the different steps of the process, Gadhai is the most difficult to describe in words and perhaps the hardest to master since even the slightest misstep can cause damage to the edges of the designs, warranting repairs later. The entire Gadhai process can take anywhere from 2 to 7 days depending on the design's intricacy, requiring regular sharpening of the chiseling tools.

A skilled artisan must be able to decide which Takna should be used where taking into account both the shape and the size of the tool. If the Takne is too small, the process will become unnecessarily long, and if it is too large, it can damage the motifs.

Dedicated blacksmiths made Takne in the olden days, but now they have to be found in the collection of deceased artisans or fashioned from bicycle spokes or steel rods of similar dimension, although making new ones is rare. Artisans are extremely possessive about their tools and still use their forefathers' chiseling tools many decades ago.



Carving the outer edge of a curve with a medium-sized Chaursi, whose sharp edge is straight and not curved like that of a Gol Puntia.

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The motion of the Takna is like that of a miniature jack- Artisans must be able strike a balance between the hammer, bobbing up and down, shaving down the wood force of the Thapri with the speed of the hammering and bringing up the waste wood from the carving.



action.



Chaursi (chisels with a straight, sharp edge) of varying sizes.



Gol Punthia (chisels with a curved, sharp edge) of varying sizes.

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Finishing of the Block:

The last stretch of the block making process is that of finishing the block. It consists of beating down the uneven surface on the inside of the motif (known as 'Thass Lagana'), shaping of the block with saws and files, attaching or carving of the handle called a Pakad or Haatha, and storing the block immersed in sunflower oil in a process called Tel Pilana (loosely translates to feeding oil). The wood is stored in oil (most commonly mustard oil) to make it insect and water-resistant. Lastly, artisans attach blunted pins or carve out 'repeat points' that enable perfect placement of the blocks during printing.







Beating down the spaces in the design as a finishing touch.

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Attachment of the handle to the block, fastened later with screws.



Attachment of the handle to the block, fastened later with screws.



The block cut to shape and with a handle attached.

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Blocks and Designs



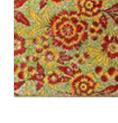
Types of Blocks Based on Purpose



Types of Block Designs Based on Applications



Anatomy of Blocks



Old Designs by Motifs



Recent Designs

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Types of Blocks Based on Purpose

Blocks can be classified primarily into three categories: the Rekh, the Gad, and the Dattla. Rekh blocks are the most important in that they are used to print the motifs' fine outlines. The blocks in the previous subsections of the documentation are Rekh block, characterized by their 'linelike' appearance (hence the name Rekh which means line).

The Gad Block prints the pattern and motif's background area color, leaving negative spaces for the primary design. Lastly, the Dattla Block is used as a filler block for coloring the motif's inner areas. Each color in a design is printed with a separate Dattla block, and these can number anywhere from just one to as many as six - the more the number of colors, the more the number of blocks. In terms of the printing sequence, the background is printed first with the Gad block, followed by the outlines using the Rekh block, and finally applying the fill colours with the Dattla block.



A Rekh (outline) and its corresponding Gad (background) block.



A Rekh (outline) and its corresponding Dattla (filler) block.

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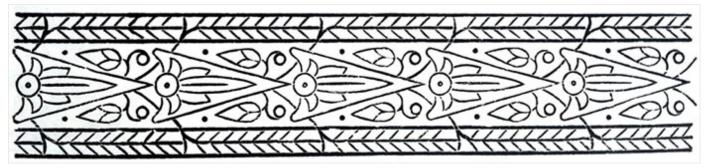
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Types of Block Designs Based on Applications

Blocks can roughly be placed into three broad categories as per their applications: primary motif blocks, border blocks, artistic or souvenir blocks.

Primary motif blocks are used for most of the fabric and get repeated over the cloth's length and breadth. Border blocks are thinner blocks that are used only on the edges of the fabrics for printing borders. Since both of these are repeatedly printed, their design is done to allow for repeats without overlap. On the other hand, souvenir or Artistic blocks are meant only for display or small prints and hence are usually not repeatable blocks.



Impression from a Border Block



A palm-sized souvenir block made for sale to visitors.



A primary motif block for printing on cloth.

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Anatomy of Blocks

There is more to a block than just a printing surface. Each of its anatomy and features has a function.

Handle of the Block:

The block's handle is called the Pakad or the Haatha, though it is just as common for artisans to refer to them as a handle nowadays. Handles are primarily of two types: handles carved from the same block of wood and handles attached to a motif carved on a wooden slab. The former was more common in the older days when Teak wood was abundantly available.

It is now more common to find blocks with the handles attached with screws or nails, especially if it has a large surface since carving a handle from such a block would take a lot of time and lead to wastage. Not only is the process of attaching a handle faster than carving out one, but it also requires less wood. This is especially important during present times since quality teak wood is hard to find. Simultaneously, the heartwood is used to make the block, the soft sapwood used for handles. Handles also have a groove on the left side of the handle since printing is typically done right to the left, and this acts as a guide for the printer in the printing process.



An old, retired block with a handle carved from the same piece of wood.



An old block with the handle removed. Notice the two holes left by nails.

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Repeat Points:

The artisan places repeat points on the four corners of the block to aid the printer with the blocks' alignment from one impression to another on a long stretch of the fabric. When the block is pressed on to the cloth, these points leave behind dots on the fabric. The printer then aligns the repeat points of the blocks over these dots successively. These dots can be used to easily tell apart whether the textile has been block printed or screen printed.



Govindbhai carving out a handle, probably the only one to still.



The groove on the left given to indicate direction of printing.



The projection on the corner is a repeat point made with a blunted nail with the wood around it carved in order to support it

Pavansaars:

Blocks have a feature that allows air to pass through the block during the printing process. This is in the form of circular holes drilled through the design's closed spaces and connected to air passageways running under the length of the design called Pavansaars. When the block is pressed down on the fabric during the printing process, the pavansaars ensure that air is not trapped between the block and the fabric surface. Drilling Pavansaars is not an easy task, and at least in the past, it used to require two artisans operating a large saedi. Now, this can be achieved with a machine drill.



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An old block with the handle removed. Notice the two holes left by nails.

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Side Faces of the Block:

Lastly, the shaping of the block, cut along the shape of the motif or given wavy edges on the two adjacent sides, provides the printer with an idea of the block's orientation and helps them maintain the consistency of the printing. This can be seen in the figure below, where two sides are flat, but the other two adjacent sides are unique.



More 'open' designs such as this which already have continous passageways for air to pass do not require pavansaars.



Block from the previous figure next to one with Pavansaars.



The block has two wavy sides adjacent to each other while the other two are flat.

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Old Designs by Motifs

Perhaps a unique thing about Pethapur as a blockmaking center is that over the centuries, its craftsmen have both designed and carved blocks of varying styles and motifs ranging from simple buttis to landscapes that seem to have been painted by hand. As found in the collections and the loosely maintained archives of the craftsmen, older designs perfectly capture why Pethapur was known to be the best.

These designs are characterized by their razor-thin outlines, Gad and Dattla blocks that sit perfectly with the Rekh blocks' design, and geometrical complexity that would have demanded the utmost attention from the Tipaiya, a person who used to responsible solely for the etching for the block. Some of these designs are represented below.

'Ambi' or 'Keri':



Ambi or Keri motifs that resemble the shape of a mango. These designs employ as many as 5 blocks for each and the Dattla blocks are as fine as today's Rekh.

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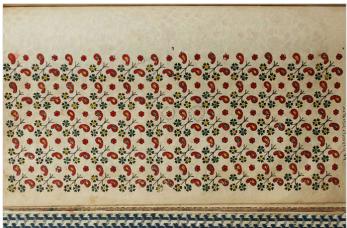
Ambi or Keri motifs that resemble the shape of a mango. These designs employ as many as 5 blocks for each and the Dattla blocks are as fine as today's Rekh.



Ambi Designs. These designs are purported to be more than 100 years old and reflect the Saudagiri tradition of block-printing. Unfortunately, with the demise of Saudagiri printing came the demise of Saudagiri designs in blocks.



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Animal Motifs:





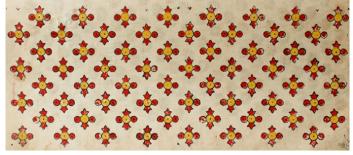


Some interesting animal motifs rare for the present day. Figure (middle) seems to have been inspired by Western traditions whereas the Figure is distinctly in the Patola sari style of Patan.

Butta/Butti Motifs:



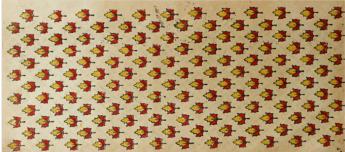
Saudagiri Butti Motifs that require careful plotting of diagonal grids.



Saudagiri Butti Motifs that require careful plotting of diagonal grids.



Saudagiri Butti Motifs that require careful plotting of diagonal grids.



Saudagiri Butti Motifs that require careful plotting of diagonal grids.

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Pethapur Block Making

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Buttis with Borders:



Saudagiri Buttis with borders.



Saudagiri Buttis with borders.



Saudagiri Buttis with borders.



Saudagiri Buttis with borders.

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Floral Motifs:



Floral Motifs.

Floral Motifs.







Floral Motifs.

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Geometric Floral Motifs:



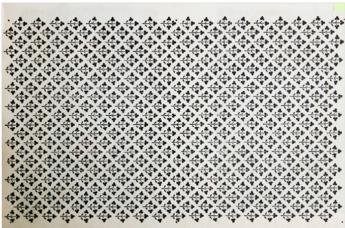
Geometric, Floral Motifs.



Geometric, Floral Motifs.



Geometric, Floral Motifs.



Geometric, Floral Motifs.

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Pethapur Block Making

Documentation of the fine craft of Block Making by

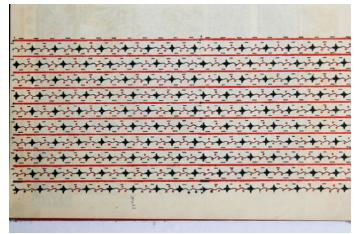
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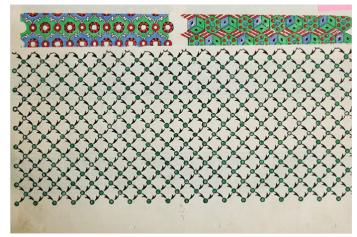
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Geometric Motifs:



Geometric Motifs

Geometric Motifs







Geometric Motifs

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'Beli' or 'Veli' (Vine) Motifs:









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Recent Designs

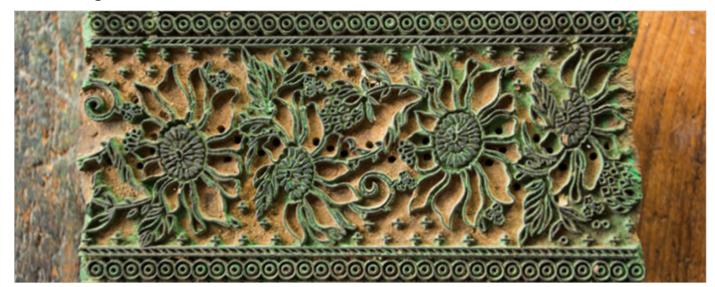
Though the more recent blocks made in Pethapur are impressive in their own right, they differ from older designs as covered in the previous subsection in their fineness of the motif's edges and the motifs' density. There are fewer Veli or Jaali designs that were quite common in the craft's heyday and broader, more floral, and geometric designs, such as Ajrakh prints. Though it cannot be termed a dilution in the quality of work, the change marks a down step in the intricacy of the designs due to the following reasons:

Lack of Quality Teak:

In olden times, teak used to come directly from lumber yards and at an affordable price, whereas presently, most of the wood comes from auctions of old wood, and finding fresh teak wood is both rare and expensive. The razor-thin edges that were achieved in the past were possible only on the highest quality teak wood. This is no longer possible with the wood currently available to the artisans.

Lack of Artisans:

Workshops of the past had dozens of artisans working together, and some of them would be expert tipaiyas (those who would etch the designs) and others who were expert at gadhai (carving). Work could be delegated to others, and a master craftsman could spend more time on finer designs. Since now, an artisan has no one to delegate work to and must carry out all subprocesses himself; he cannot afford to invest the time required for overly intricate designs.



A century old block with edges thinner than 1mm, in Dahyabhai's possession.

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Market Dynamics:

Another factor is perhaps the lack of asking power that the artisans have in the market and incongruence of the amount of work and remuneration. It is simply not economically feasible to produce such fine blocks.

Disappearance of Design Knowledge:

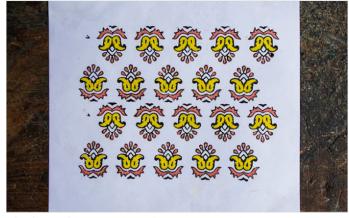
Lastly, the loss in the level of detail can be ascribed simply to a lack of creation of such fine designs and the loss of knowledge of how to recreate older designs. Perhaps this is exacerbated by a preference for more contemporary, geometric, and 'open' motifs by printers and the market.



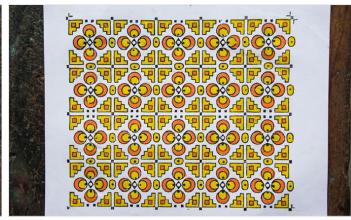
Blocks and impressions from present times.



Blocks and impressions from present times.



Blocks and impressions from present times.



Blocks and impressions from present times.

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Design Resource

Pethapur Block Making

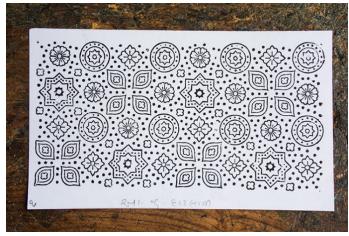
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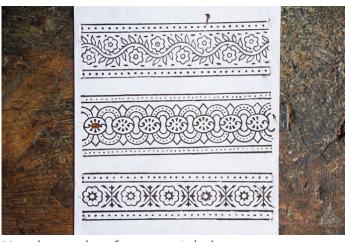


https://www.dsource.in/resource/pethapur-block-making/blocks-and-designs/recent-designs

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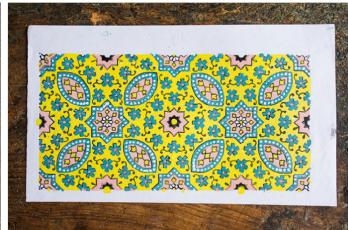
More impressions from recent designs.



More impressions from recent designs.



More impressions from recent designs.



More impressions from recent designs.

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Block Making Community

The People of the Craft. According to the report filed for the craft's G.I. Certification, the art of block-making in the present day is not practiced by more than 21 artisans, though only a few of them actually practice the craft like it used to be. Some of the most experienced craftsmen in Pethapur and helped in this documentation project are documented in this section.



The People of the Craft



Fading Community

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The People of the Craft

Govindbhai Prajapati, 76:

Govindbhai Prajapati is known to be a perfectionist and famous for a clean, sharp finish on his motifs and marblelike white appearance. He works primarily for the Khatri printers of Bagh, Madhya Pradesh, and has been for decades.

Govindbhai, however, remains skeptical of others' work and claims to be the best among the artisans of Pethapur. One can perhaps see merit in his claim, but that has managed to sour relationships with certain other craftsmen, including his son Satish. Yet, his experience and skill are undeniable.





A palm-sized souvenir block made for sale to visitors.

A primary motif block for printing on cloth.

Dahyabhai Prajapati, 80:

Dahyabhai Prajapati is now the seniormost artisan in the village and a master of the craft, though he no longer practices the craft due to poor eyesight and health issues that are characteristic of senility. He started learning the craft at the age of 12 and moved to Mumbai for Work at the age of 14, making his career an artisan nearly seven decades-long. Nevertheless, he still sometimes helps his son Dahyabhai Prajapati with the etching of blocks and plays an advisory role in selecting design and maintaining a high level of quality of the blocks.

There was a time, Dahyabhai says when the craft was still profitable relative to the prices of common household items at the time. He even employed craftsmen under him and taught the craft to numerous others in the village. He most commonly used to work for Ahmedabad's Saudagiri printers, a tradition he was a master in but shifted to Ajrakh printing in Kutch eventually. Today, he is a living vessel of the knowledge of the craft and, along with the Govindbhai, one of the only two or three craftsmen in the village who have the skill of synthesizing or 'drawing' new designs.

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A fine Rekh Design by master craftsman Dahyabhai Prajapati.

Chetanbhai Prajapati, 40:

Chetanbhai Prajapati is the son of master craftsman Dahyabhai Prajapati, who passed down the craft to his son. He has been practicing this craft since the age of 16 and is part of what Dahyabhai fears might be the last generation of craftsmen to pick up this craft. Chetanbhai is an incredibly skilled craftsman himself and worthy of being called a master of the craft, though he doesn't design his motifs, something which his father wishes he did. When he came into the craft, he joined his father in making blocks for Kutch's Ajrakh printers, which has become his main source of work.

Though his loves the craft and expresses that through his work ethic and fine creation, he sometimes wishes he had completed his education and laments how difficult it can be to support his three children and wife working as an artisan since pay is abysmally incongruent with the work required to make good-quality blocks. Despite this, Chetanbhai and Dahyabhai have been able to spread the word of the craft too far beyond Pethapur, attracting tourists from all around the world to this village with whom they openly share this craft, its processes, and its beauty.

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Master craftsman Chetanbhai Prajapati, son of Dahyabhai.



Chetanbhai shows one of his creations, an Ajrakh design.

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Fading Community

The block-making community in Pethapur, however, is an ever-dwindling one. According to Trivedi (1961), the block-making community was more tightly-knit and had a cooperative that was responsible for the pricing and procurement of raw materials for the artisans in the village. The community at present, however, is fractured.

In a bid to stay competitive, the artisans have driven prices to a point where the craft is economically untenable. A block that might require 40 hours of work typically fetches only about Rs. 3000 - 4000, which is hardly fair pay for such demanding work. Artisans have now broken off into separate directions and now work in their workspace with any practicing family members instead of working collectively like in the past.

Each family or artisan has established partnerships with printers from across the country. For example, Govindbhai works exclusively with Bagh's printers in Madhya Pradesh, and Dahyabhai and Chetanbhai work with Musabhai Khatri of Kutch. This limits not only their economic opportunities but also the range of designs they work on. Craftsmen are essentially working as skill-for-hire who make blocks as the printers who either provide artisans with their own designs or select from designs created by the artisans in the past. This has led to a stagnation in terms of the creation of new designs and evolving existing designs.

Sharing new opportunities and working under a collective banner could perhaps offer a new lease of life to the craft, but there appears to be a mistrust amongst the artisans. This can be seen in accusations of theft of tools on other artisans or in cases such as those of one artisan being dismissive of another's skills, in which the former is dismissive of the skills of the latter. Perhaps if these differences could be overcome and the artisans worked together, a new cooperative or school for artisans could be set up that would ensure that this craft survives another few generations. All of this, however, would require an entrepreneurial mindset and collective effort.



Block printing in the workshop of Musabhai Khatri of Kutch with blocks made by Chetanbhai and Dahyabhai.

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Conclusions

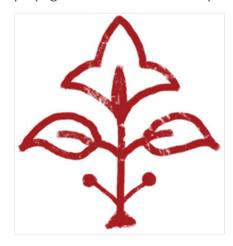
The art of block-making is an exquisite, intricate, and wholly inspiring craft tradition that elevated an ordinary village by the name of Pethapur to almost legendary status in India's textiles history. The craft hasn't received nearly enough recognition as it deserves in recent times, especially compared to its sister craft of block-printing, which relies so much on the block-making quality.

Though its reasons are many and rather complicated, the decline of the craft has been unfortunate. Its disappearance would lead to the loss of knowledge and traditions accrued to its artisan community over nearly three centuries. In the absence of its former patronage, the craft hasn't been able to find the means to keep continuing its rich traditions. It is contingent upon those who appreciate the crafts and members of the design community to make sincere efforts towards at least preserving its knowledge before a full-fledged revival effort, a story that rings true of perhaps many Indian handicrafts in the present day.

This documentation project was a small attempt at the preservation of knowledge, which is yet to be covered. The author feels that engaging with a form of traditional craft ensures the continuation of that art form and has plenty to teach and give to those who invest themselves in one.

Collaboration from designers, handicrafts experts, scholars, and members of the local community along with some institutional support, can at least ensure that the craft survives. A little more entrepreneurial initiative can ensure that the craft thrives.

Future efforts at documentation and preservation may do well to keep this in mind and help the community propagate the craft as much as possible, having discovered its many facets and issues.



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