

Paata

A Vernacular Furniture of Bikaner

Jay Shah (Ui 0810)

Guide : Mansi Sathyanarayan



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PAATA : A Vernacular furniture of Bikaner.

By

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Dissertation
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Vernacular Furniture of Rajasthan

By

Design Innovation and Craft Resource Centre (*DICRC*), CEPT University, India
in collaboration with South Asia Decorative Arts and Craft Collection (*SAD-ACC*) Trust, UK.

Guide : Mansi Sathyanarayan

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UNDER GRADUATE PROGRAM IN INTERIOR DESIGN

Student Name & Code : Jay Shah (UI0810)

Thesis Title : PAATA : A vernacular furniture of Bikaner

APPROVAL

The following study is hereby approved as a creditable work on the approved subject carried out and presented in the manner, sufficiently satisfactory to warrant its acceptance as a pre-requisite to the degree of Bachelor of Interior Design for which it has been submitted.

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Mansi Sathyanarayan
Signature of the Guide

Dean, Faculty of Design

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To,

Mom, Dad, Bhai, Bhabhi and my Niece...

.....



Khamma Ghani..

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as you are to them.*
- Desmond Tutu

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Preface

It is a research on vernacular furniture from Bikaner which has embellishes the houses and the need of the people. It keeps the community and its culture bounded. The research explores the various tangible and intangible aspect of vernacular furniture that has led to the continuation and existence of vernacular furniture till date. The elements documented in this research have been identified through field visits across the city and the interaction of different kinds of people who occupy and use the furniture. Through this study, I gained insights on the under currents, happening at such a place and the major role of furniture it plays, in the lives of people. I hope that this research becomes a resourceful work for my fellow designers, architects, students, anyone interested in vernacular furniture and anthropologists.

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Chapter 1
Introduction

We live in a material age; we have colossal material history and heritage. When we look back at history, from earliest times human have their root grounded with material and objects that he owns to encapsulate their identity. With Passage of time, human started making the object for his survival and comfort. The artefacts, art objects and other such items are an integral part of the material culture of a community/ in society.

“Our evolution as cultural being has been an increasing dependence on objects for survival and comfort”.¹

Among those objects and artefacts, furniture is one of the objects of concern, as they are in constant interaction with a man physically and emotionally, and they evolve with the cultural and social know-how of a community. Consequently, the human interaction with the furniture became a ritual of an individual for various activities. Thus furniture is a physical manifestation of indigenous, social, cultural, environmental and economic condition, and forms an important part in the evolution of mankind.

A social culture influences the minds of an individual and thus whatever he creates and surrounds himself with is also under similar influences and in turn, the individual minds create a social culture. This cycle is simultaneous, but for our understanding, it could be said that individuals are collectively seen as the social personae when they express the need for a physical and emotional comfort through a set of ritualized actions which involves furniture.

A study on vernacular furniture becomes essential from a perspective of forms and function, source of invention, question of diffusion and their relation to social organization, religion and ceremonial practices giving insight into many socio-cultural rituals and narratives and in understanding the associative role of furniture in lives of people and inter-activity between user and community.

This dissertation is an attempt to understand the fundamental role of vernacular furniture in a regional context and to understand the tangible and intangible aspects associated with a furniture piece. These includes physical attributes, function, social custom, tradition and belief associated with furniture and thus aid in knowing the relationship of man and furniture in social and cultural context.

1.1 Context of research

The research focuses on documenting and understanding the vernacular furniture through on-field data collection and through conversation with scholars, craftsman and locals within the walled city (old city) of Bikaner, in Bikaner district. And to comprehend the factor which governs the characteristics and construction of furniture.

The walled city of Bikaner, being the oldest settlement in Bikaner district, is rich in its cultural and architectural heritage. A few Vernacular furniture is found within the walled city, which has few similarities with the vernacular furniture of other parts of Rajasthan. It is the usage, making, material, craft, ornamentation and nomenclature of furniture, which are the derivatives of the cultural and social background of a region, makes it vernacular.

Vernacular furniture called '*Paata*' is found within the walled city of Bikaner. *Paata* is vernacular furniture which exists in different physical forms, scale, shape, and size as per the social and cultural usage and vice versa.

The *Paata* in Bikaner are found in both public and private space. In the walled city of Bikaner, within the public domain, there are many *Paata* along the single street, outside the Havelis, and in every chowks and mohallas. Vernacular Furniture emerged in an urban fabric, which is infused in the lifestyle and culture of People of the walled city of Bikaner. So it becomes essential to throw some light on '*Paata*', its relationship to an individual and how important it is for different facets of the society.

In this city, there is a strong *Paata* culture, which is persistent.

1.2 Research approach

Aim

To study the social and culture significance of *Paata*, and its expression within walled city of Bikaner.

Research Objectives

- To identify the position of different *Paata* in a community and personal space and thus constituting its role and relevance in walled city.
- To study the construction and thus the characteristic of *Paata*.
- To understand the *Paata* through the lens of ownership, function and aesthetic.

1.3 Research method

Background Research

It includes literature research about Rajasthan and vernacular furniture.

Primary Research

Quantitative research

It includes field visits to identify and document vernacular furniture in the different region of the walled city of the Bikaner

Qualitative research

Activities and usage response to the furniture are identified and understood on the field and mapped through photographs.

Measure drawing of the furniture to understand the character and construction method of vernacular furniture pieces, and can additionally support restoration and recreation of the same

Interview with the local people who occupy the *Paata*, with the craftspeople who makes them and the experts, to gather information about the cultural history and social use of furniture.

The thesis will lead to a certain observation and summarize the study for an understanding, which may initiate a direction for new thoughts and ideas.

Secondary Research

Literature Studies

1.4 Scope & Limitation

The thesis aims to initiate study and documentation of various vernacular furniture of Rajasthan to understand its contribution to the culture heritage.

The thesis would remain limited to the study of vernacular furniture within the walled city of Bikaner. And further limits itself to the study of '*Paata*' a vernacular furniture of the walled city.

The study seeks to encourage further discussion around the relation of an individual, a community to vernacular furniture.

The measure drawing of the significant *paata*, existing at present in the walled city could surmise as to the typical furniture piece of that particular time period.

1.5 Relevance of research

India is an amalgamation of many different tribes and community of different origin which are identified by their indigenous culture, which has a unique lifestyle, settlement, and artifacts which are vernacular to the region and also helps to understand the community.

The vernacular fabric changes every few hundred kilometers. Thus region's settlement, architecture, furniture, and artifacts are excellent examples that reflect several social and cultural aspects of that particular region.

And there exists a substantial amount of research and documentation in favor of the traditional settlement and vernacular architecture of India to understand the different culture, and there is not much research in terms of native furniture, if any, none that would shed light on the origin or socio-culture significance of the furniture pieces.

Vernacular Furniture is a subject that provides a window into the lives and tradition of the indigenous people of our community, and in so doing creates a mirror that reflects our own experience.

This thesis seeks to understand the relationship between the society and a native piece of furniture within the interior and in urban context too which characterize the socio-culture image of the dwelling and the community.

Citation

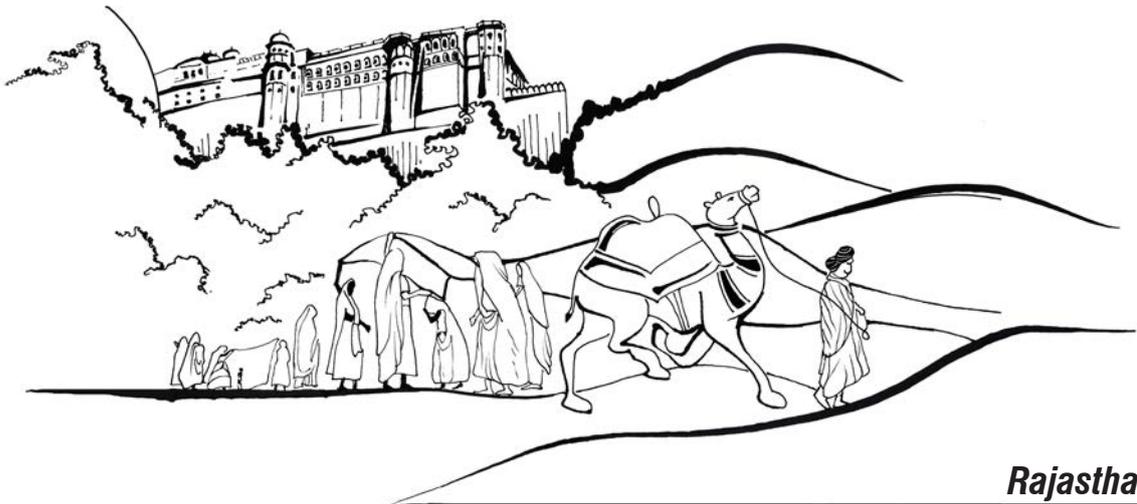
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Chapter 2
Context



*Vernacular
Furniture*



Rajasthan



Bikaner

2.1 Vernacular Furniture

2.1.1 Etymology of ‘Vernacular’

The word Vernacular is derived from the Latin word *Vernaculus* (“native”) which had been in figurative use in Classical Latin as “national” and “domestic”.¹

Definition

The language or dialect native to a region or country rather than a literary, cultured, or foreign language and spoken by the ordinary people of a country or region.²

Of or relating to the common style of a particular time, place, or group.

Colloquial, native, Regionalism, Local-ism, Indigenous.

2.1.2 Etymology of ‘Furniture’

The word furniture is derived from the French word *fourniture*, which means supplies or provision. French and other Latin languages use variants of the word *meubles*, which derives from Latin *mobilia*, meaning “movable goods”.³

“ Man predilection for comfort has created a host of house—hold articles ”.

Definition

A movable object or article that is used to make a room suitable for living and working in for particular task or function. And to ornament the room.

They are the extension of human body and interaction, which reproduce themselves along biological ones with human intervention.

2.1.3 Interpretation of ‘Vernacular Furniture’

Vernacular means something handcrafted by local people under a set of their principle which serves the community and forms their identity.

Every community has a unique socio-cultural identity rooted in their habitat, lifestyle, and objects they own. Furniture is one the category of an object which has maximum density and uses in day to day life of a people within a domestic settlement of particular region or community. They are embedded in a social, cultural and environmental condition in which they conduct daily activities.

“It is a piece of furniture made by the people, of the people,
For the people of particular region or community.”



Fig.2.1_1

Fig.2.1_1. Earliest form of raised seating surface.

Vernacular furniture is a result of the everyday need of local people that are made by local people using the locally available material in that region.

Thus, Vernacular furniture is mostly the domestic furniture crafted and designed by local artisans using indigenous material and used by people in their day to day activity of particular region or community.

It provides a window on the lives and tradition of the indigenous people of our community, and in so doing creates a mirror that reflects our own experience.

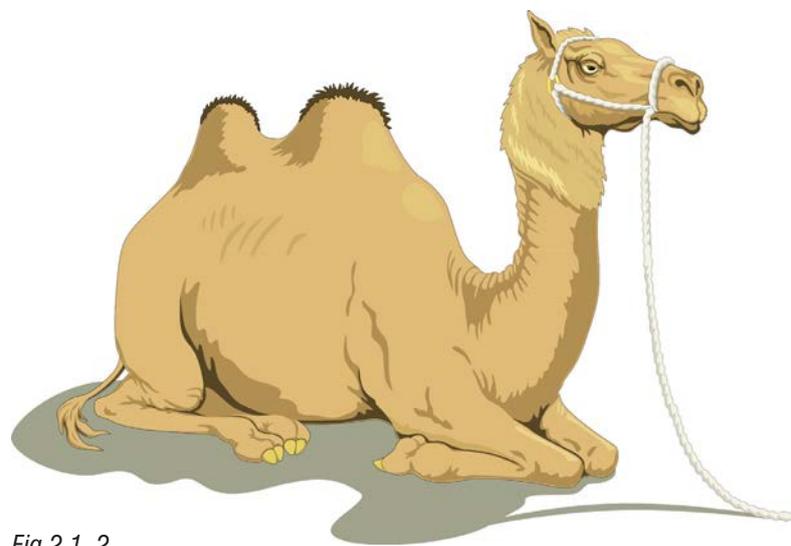
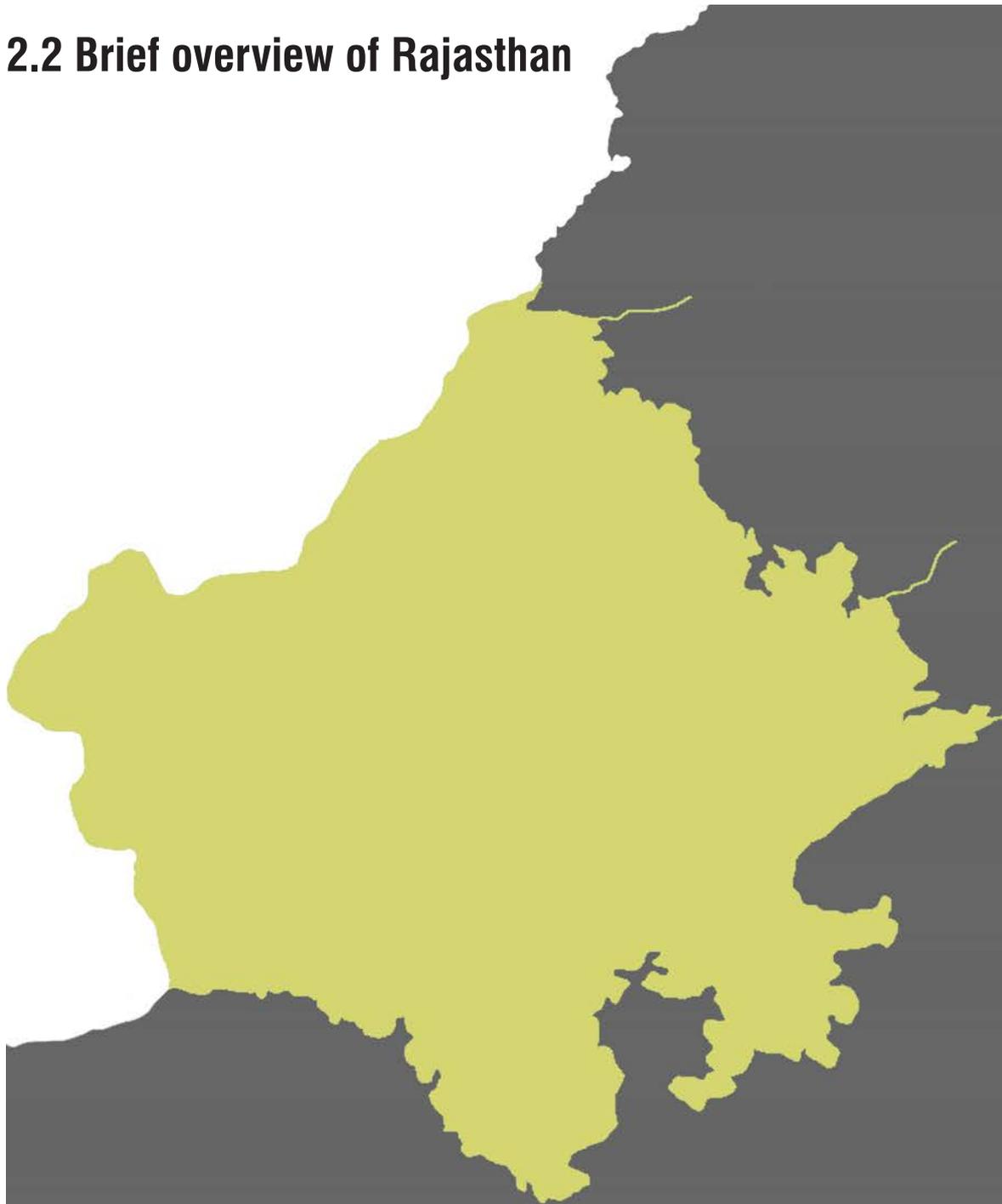


Fig.2.1_2



2.2 Brief overview of Rajasthan



Rajasthan

Earlier known as *Rajputana* , the land of Rajputs (Prince).
It is the largest state of the Indian union.

23°3'- 30°2' N 69°30' - 78°17' E

Fig.2.2_1

Rajasthan a colorful state of India has bequeathed to India a rich artistic cultural heritage

The undulating sand dunes with the magnificent architectural creation of forts, palaces, and Havelis with intricate and finest mural painting on wall rising up proudly from them created by the finest stone worker, wood carvers, masons, painters and many master craftsmen, which shines under the glazing sun. The vivid colors of their attire, a euphonious dialect, a music full of myths and legends and a village with mud bricks huts with painted decoration on wall and tales of valor and legends.

All these dramatic components and a land packed with history, art & culture contribute in their own unique way to a rich variety of experiences that defines Rajasthan.

Fig.2.2_1 Map of Rajasthan

(Maps used are for representation purpose only. They are not to be use fro navigational or political reference.)

2.2.1 Historical Background

The ancient civilized history of Rajasthan goes back to 5,000 years old. Parts of what is now Rajasthan were partly part of the Vedic civilization and Indus Valley civilization. Kalibangan, in Hanumangarh district.⁴

Rajasthan by so far is an accumulation of many different tribes from surrounding region.

Classical Era

When indigenous ruling houses in different parts of India began to be threatened by foreign onslaught, masses of uprooted people started taking shelter over this area under different compulsion

Guhilots – who claim to have come from Gujarat were first to come, **Chauhans** – who might have come from the foot of Himalayas to settle on the bank of the Sambhar Lake, Then came the **Pratiharas** who were ousted from their imperial hold at Kanauj, The **Rathors**, who claimed decent from Jaichand (Jayachahandra of Varanasi and Kanauj) were dislodged from Ganga Yamuna region, **Kachchhwas** came from Gwalior area, **Bhattis** were pushed out from Afghanistan through Punjab.⁵

Of other important claimants of royal descent had been the **solankis** from Gujarat and the **Parmars** from Malwa.⁶

Medieval Era

Then came **Rajputs, Jats, Meenas, Rebari, Gurjars, Bhils, Rajpurohit, Charans, Yadavs, Bishnois, Sermals, Phul-Mali (Saini)** and other tribes in different parts of Rajasthan and made a great contribution in building the state.⁷

All these tribes suffered great difficulties in protecting their culture and the land. Bhils once ruled Kota. Meenas were rulers of Bundi, Hadoti and the Dhundhar region.⁸

Rajput Era

Rajput families rose to prominence in the 6th century CE. The Rajput put up a valiant resistance to the Islamic invasions and protected this land with their warfare and chivalry for more than 500 years. Rajput reign from 700 AD to 1200 AD.⁹

Later, the **Mughals**, through skilled warfare, were able to get a firm grip on northern India, including Rajasthan. They reign from 1200 AD to 1700 AD. Mughals got many Muslim artist and craftsmen, and with their influence, Rajasthan becomes rich in artistic and architectural creativity. The Mughal Empire continued to weaken, and by 18th century Mughal Empire declined.¹⁰

With declination of Mughal Empire, Rajputana came under suzerainty of the **Marathas** - The Hindus from the state of what is now Maharashtra, ruled the Rajputana for most of the eighteen century.¹¹

Maharaja Sawai Jai Singh under his reign from AD 1727 - AD 1800 Pioneered the new city Jaipur, which become an asylum of artist and craftsmen. This in returns created a distinguished identity to royals of Jaipur by craved stone palaces, sword work, jewelry, furniture etc.

After the remarkable ornamentation time in the history of the state, the British spread their colonial ambitions across western India. They started colonized in palaces and Havelis of Rajasthan and by 1818 the Maratha Empire was replaced by British Empire.¹²

Later the Rajput kings concluded treaties with the British in the early 19th century, accepting British suzerainty and control over their external affairs in return for internal autonomy as a **Princely State**.¹³

Modern Era

New Indian Government took 10 years to bring together various princely state & clans into a modern Political entity that finally become the present State of Rajasthan.

.....

Modern Rajasthan includes most of Rajputana, which comprises the erstwhile nineteen princely states, two chief ships, and the British district of **Ajmer-Merwara**.¹⁴

Marwar (Jodhpur), **Bikaner**, **Mewar** (Chittorgarh), **Alwar** and **Dhundhar** (Jaipur) were some of the main Rajput princely states. **Bharatpur** and **Dholpur** were Jat princely states whereas **Tonk** was a princely state under a Muslim Nawab.¹⁵

The political boundaries of Rajasthan can be further divided into nine Zone:

*Dhundhar, Godwad, Hadoti, Marwar, Merwara, Mewar, Mewat-Brij, Shekhawati and Vagad.*¹⁶

Post-Independence, all these and other smaller states, and the British province of Ajmer-Merwara were amalgamated into one administrative unit which has named **Rajasthan**.

These indigenous races and tribes from different areas bringing rich stores of cultural heritage with them, found here a home to settle down in strength. Claimants to royal ancestry these incoming people gradually got fused into a unified mass, contributing a new identity to the area under the name Rajasthan.

Rajasthan's formerly independent kingdoms created a rich architectural heritage, seen even today in their numerous forts and palaces (Mahals and Havelis), which are enriched by features of Islamic and Jain architecture.

Fig.2.2_2 Map is showing the Sub Regional Demarcations of Rajasthan. The selection of towns in each of the nine region of Rajasthan is based on their historic significance, Ruling clans & Towns and Dialect.

(Maps used are for representation purpose only. They are not to be use fro navigational or political reference.)

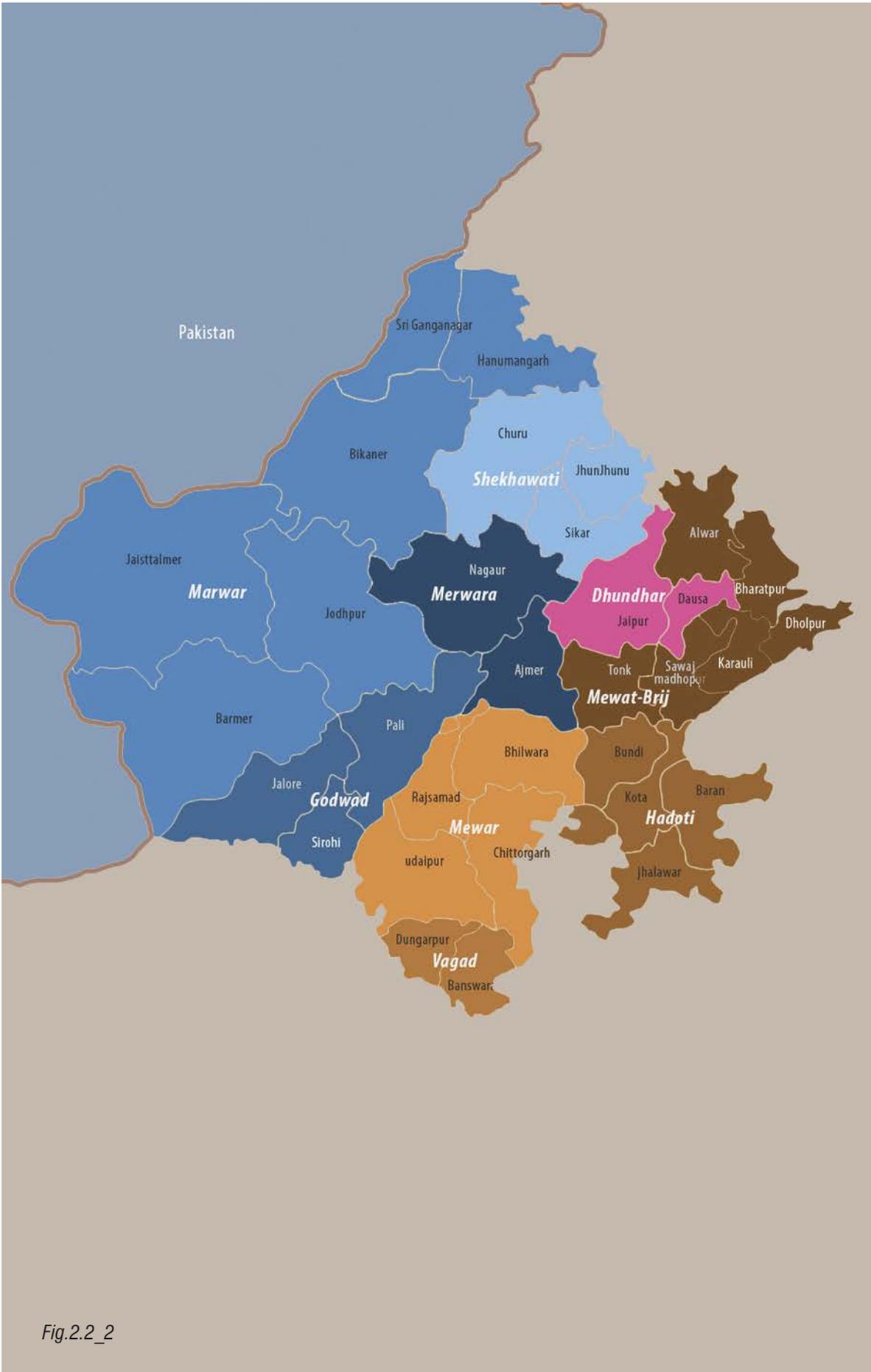


Fig.2.2_2

2.2.2 Geographical Background

Rajasthan, with an area of 342,274 square Kilometer is the second largest state in India. It is located in the north-western part of India between 23° 3' - 30° 2' N 69° 30' - 78° 17' E. Rajasthan is bounded on the west by Pakistan, on the east by Uttar Pradesh and Madhya Pradesh, in the north by the Punjab, Haryana, and Delhi, and in the south by Gujarat and Madhya Pradesh.¹⁷

“Culture is essentially a mechanism for adaptation to environment. Therefore, to understand the culture and society, it is necessary to know about the physical features and environment of the land.”¹⁸

The most significant physiographic feature of Rajasthan is the *Aravalli* mountain range. Running from *Khetri* in Northeast to *Khed Brahma* in the southwest, dividing the Rajasthan into two unequal distinctive parts with different, physiography, climate, vegetation, economy and culture.¹⁹

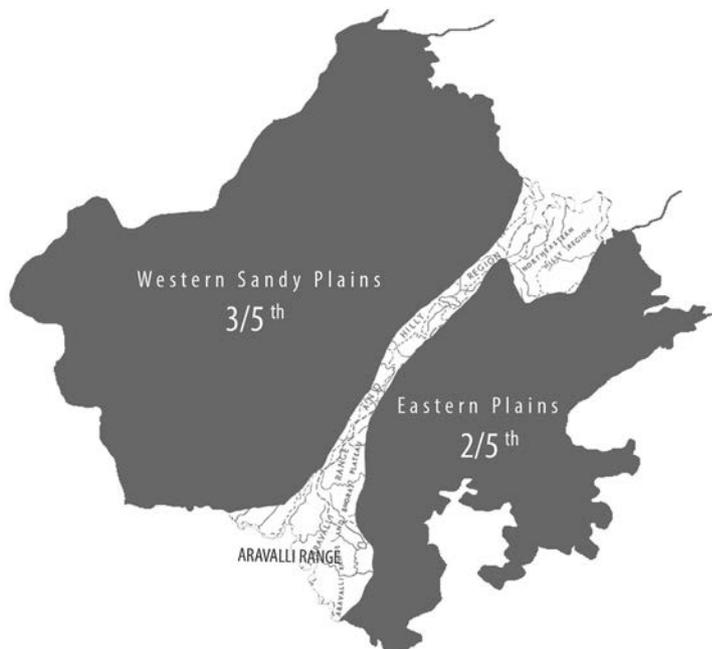


Fig.2.2_3

The Aravalli are among the oldest mountain folds of the world. Within Rajasthan, the range has a length of 550 km from north-east to the southwest dividing the state into Western Rajasthan and Eastern Rajasthan.²⁰

Fig.2.2_3 Map is showing the geographical division of Rajasthan by Aravalli range.

(Maps used are for representation purpose only. They are not to be use fro navigational or political reference.)

Physiography of Rajasthan

On the basis of the existing relief features, Rajasthan has been divided into the following physiographic divisions:

1. Western Sandy Plains

Western Rajasthan is essentially a flat alluvial plain covered with numerous sand sheets and dunes. The thickness and intensity of sand cover increase progressively towards the west and north.

- (a) Sandy Arid Plains
 - (i) *Marusthali*
 - (ii) Dune free Tract
- (b) Semi-Arid Transitional Plains (Rajasthan Bagar)
 - (i) Luni Basin (*Godwar* Tract)
 - (ii) Plain of Interior Drainage (*Shekhawati* Tract)

2. Aravalli Range And Hilly Region

- (a) Aravalli Range and Borhat Plateau
- (b) Northeastern Hilly Region

3. Eastern Plains

Eastern Rajasthan is morphologically more varied. The southern part is known as eastern plain. The south-eastern limit of this plain is marked by the Hadoti plateau.

- (a) *Banas* Basin
- (b) *Chappan* Plains

4. Southeastern Rajasthan Pathar (Hadoti Plateau)

- (a) *Vindhyan* Scarpland
- (b) Deccan Lava Plateau

Physiography of Rajasthan

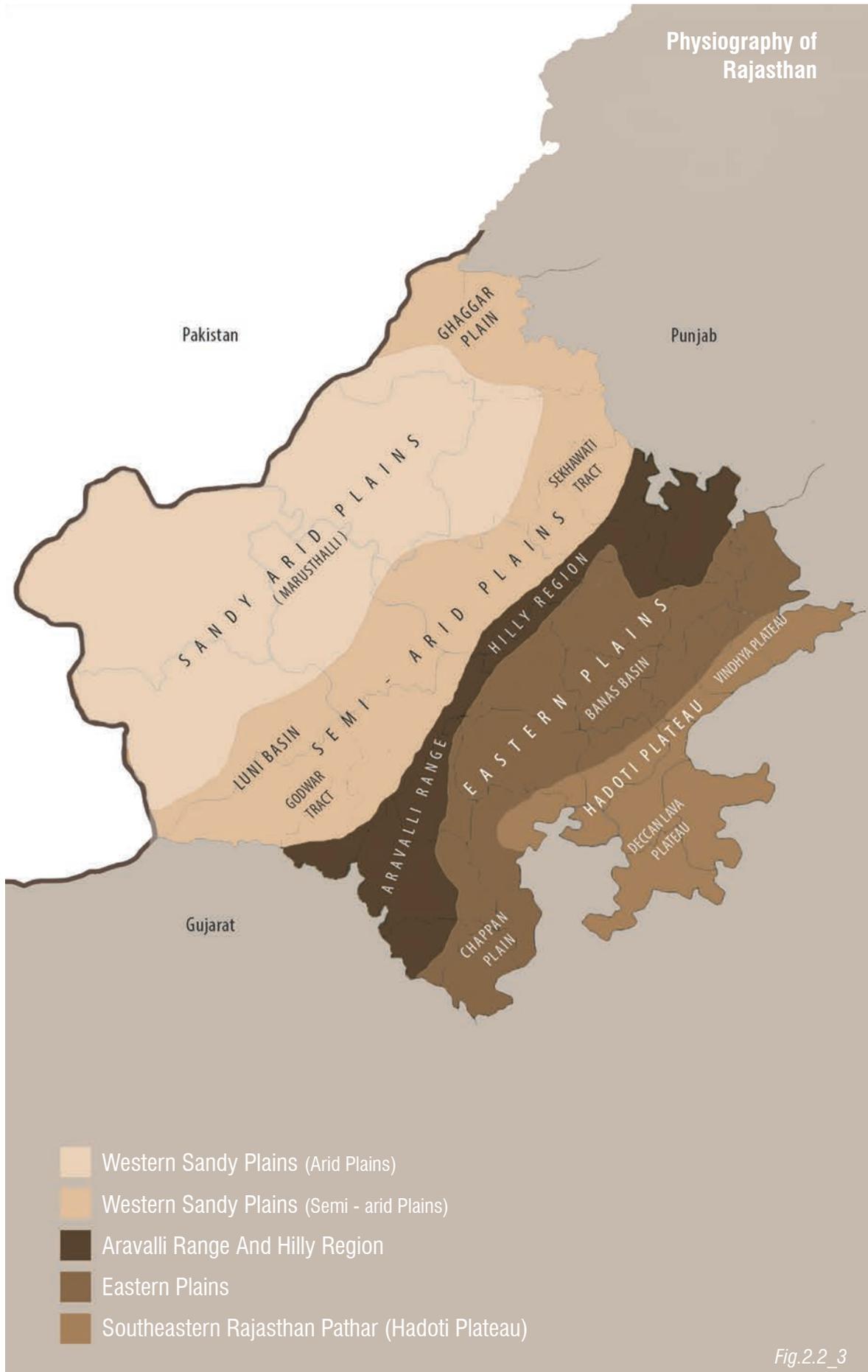


Fig.2.2_3

Extend and degree of sand dunes in Rajasthan.

The western part of Rajasthan is covered mainly with sand sheets and dunes and is also characterized by high climatic temperature. The local heating produces strong convection currents which in turn results in the formation of Sand swirls and sometimes into a cyclonic storm.

Such storms are very common in the western arid region of Rajasthan. Ganganagar, Bikaner, Jaisalmer and few region of Jodhpur have maximum and dense storms.

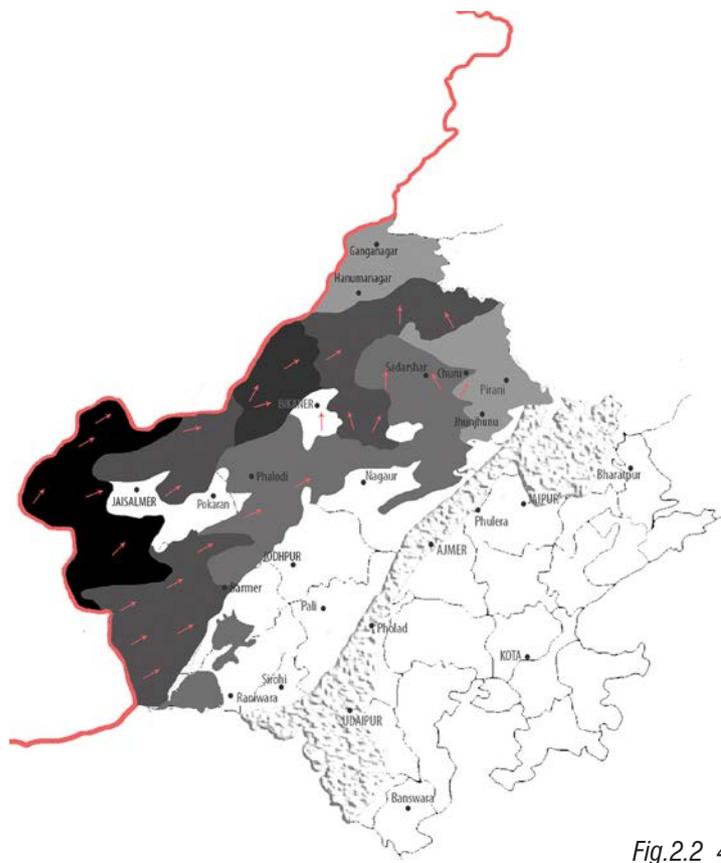


Fig.2.2_4

- Direction of the movement of sand
- No Dunes
- Slight 0 to 20 % of the total area affected
- Moderate 20 to 40 % of the total area affected
- Strong 40 to 60 % of the total area affected
- Severe 60 to 80 % of the total area affected
- Very Severe 80 to 100 % of the total area affected

Fig.2.2_3 Map is showing the Physiography of Rajasthan.

Fig.2.2_4 Map shows the region affected with sand dunes.

(Maps used are for representation purpose only. They are not to be use fro navigational or political reference.)

Climate of Rajasthan

The extremity of climate is the characteristic of Rajasthan. The Aravalli Range divides this State into two distinct climatic regions.

The area west of the Aravalli has long periods of severe drought accompanied by high wind velocity and low relative humidity. East of the Aravalli, the rainfall and temperature distribution show considerable variations. All over the State during summer, heat is intense and scorching²²

About ninety percent of the rainfall occurs during the monsoon period, while in western Rajasthan it scarcely averages more than 12 cm a year as the whole of this area is very sandy. In Southern Rajasthan, rainfall is much heavier as it receives the monsoon not only from the Arabian Sea but also from the Bay of Bengal. North receives 20 cm and even less. This Rainfall is generally erratic. In eastern Rajasthan, rainfall is about 73 cm.²³

The distribution of climatic regions of Rajasthan on the basis of rainfall and temperature variations is divided into the following categories.²⁴

- (a) Arid Region
- (b) Semi-arid Region
- (C) Sub-humid Region
- (d) Humid Region
- (e) Very humid Region

(a) Arid Region

Location: The Arid region includes Jaisalmer district, Northern part of Barmer, the western part of Jodhpur, the western part of Bikaner and southern part of Ganganagar district.

Rainfall: Climate of the region is very severe and arid with less than 10 cm rainfall in extreme in the west part of regions and rest area record less than 20 cm rainfall.

Temperature: The average temperature during summer is recorded more than 34°C and during winters it ranges in between 12°C to 16°C.²⁵

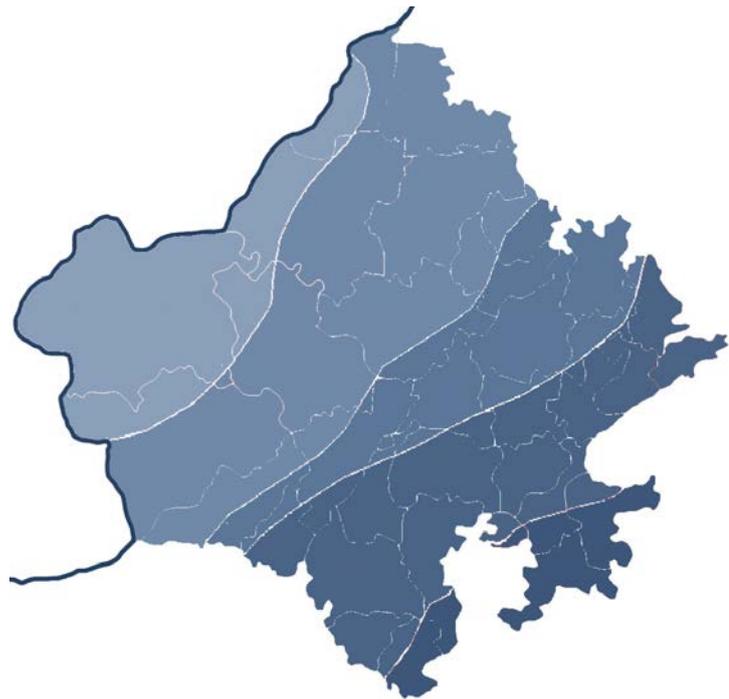


Fig.2.2_5

- Arid Climate Region
- Semi-Arid Climate Region
- Sub-Humid Climate Region
- Humid Climate Region
- Very Humid Climate Region

(b) Semi-arid Region

Location: This region comprises the western part of Ganganagar, Hanumangarh, Jodhpur and Barmer districts.

Rainfall: As the region has erratic as well as torrential rainfall it brings floods to each time. Rainfall ranges from 20 to 40 cm.

Temperature: The average temperature during winter ranges between 10°C and 17°C and the summer temperature range 32°C to 36°C. ²⁶

(c) Sub-humid Region

Location: This region comprises Alwar, Jaipur, Dausa and Ajmer, eastern parts of Jhunjhunu, Sikar, Pali, and Jalore districts, north-western parts of Tonk, Bhilwara, and Sirohi

Fig.2.2_5 Map shows the climate classification of Rajasthan, based on Rainfall distribution

(Maps used are for representation purpose only. They are not to be use fro navigational or political reference.)

districts.

Rainfall: In sub-humid region rainfall is meager. The rainfall is between 40 to 60 cm.

Temperature: the average temperature during summer season ranges from 28°C to 34°C whereas it is recorded 12°C in northern parts and 18°C in the southern parts.²⁷

(d) Humid Region

Location: Humid region is found at the districts of Bharatpur, Dholpur, Sawai Madhopur, Bundi, Kota, Barmer and Rajasmand and the north-eastern parts of Udaipur.

Rainfall: This region receives winter rainfall associated with cyclones along with monsoon season rainfall which varies from 60 to 80 cm.²⁸

(e) Very Humid Region

Location: Very Humid Region includes southeast Kota, Baran, Jhalawar, Banswara, southwest Udaipur and adjacent areas of Mt. Abu.

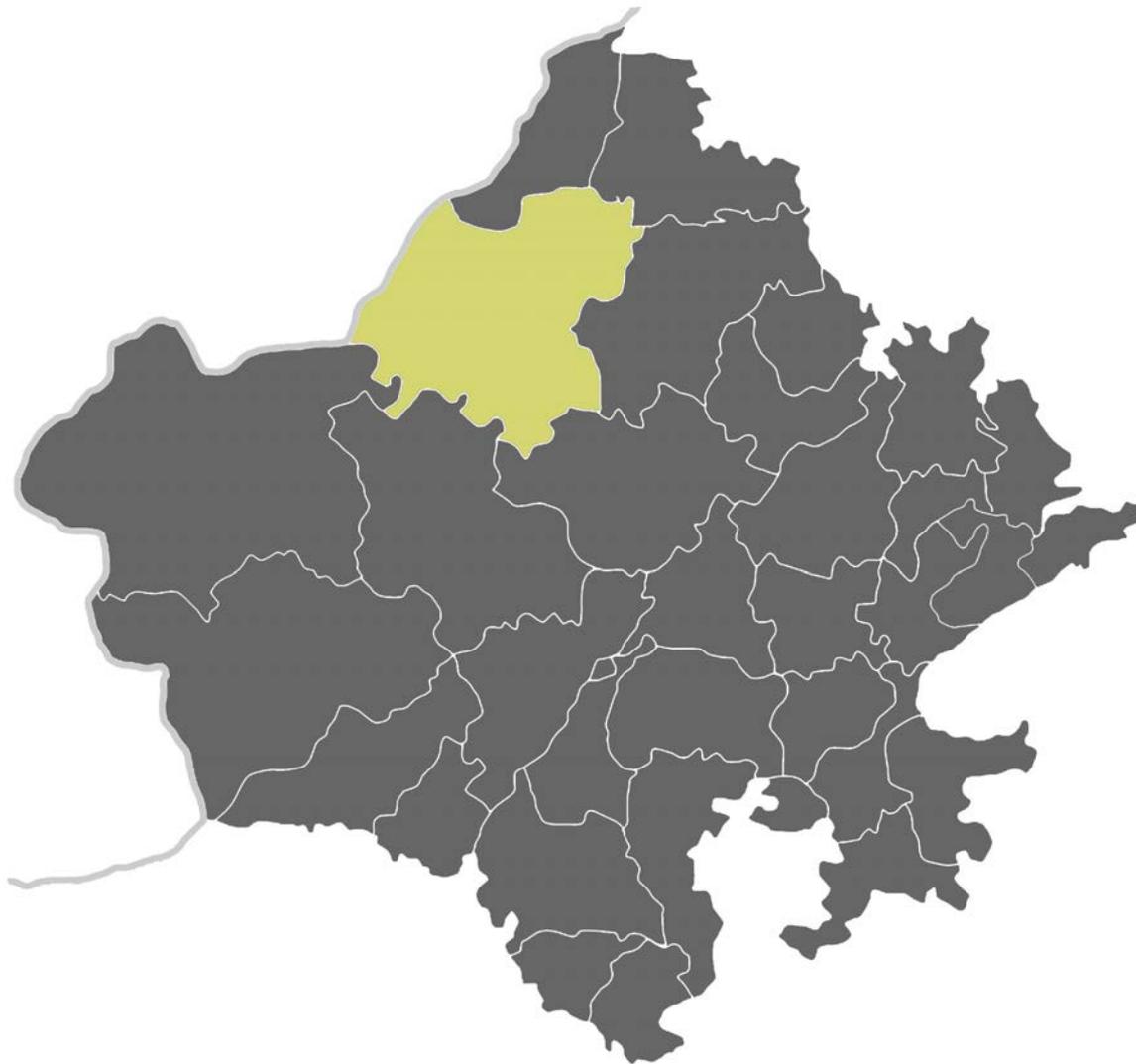
Rainfall: Rainfall received is between 80 cm to 150 cm, which is mostly during the rainy season.

The summers are very hot and winters are cold and dry.²⁹



Fig.2.2_6

2.3 Brief overview of Bikaner



Bikaner

Bikaner derived its name from Rao Bikaji, the founder ruler.

28°01' 37.6968" N, 73°18` 7.7580" E

Fig.2.3_1



Bikaner is one of the magnificent cities of Rajasthan.

Bikaner is surrounded by golden sand dunes, spiritual temples, traditional houses, majestic forts and richly sculptured Palaces in *Dulmera* red and yellow sandstone displays the ideal creations of the Rajput civilization.

It is bestowed with rich cultural and architectural heritage, which can be experienced through the narrow lanes of the walled city of Bikaner, packed with opulent mansion ornately carved in stone called Havelis.

Fig.2.3_1 Map of Rajasthan highlighting Bikaner district, Showing the Lat/Long of Bikaner city.

(Maps used are for representation purpose only. They are not to be use fro navigational or political reference.)



2.3.1 Historical Background

Very less is known regarding the ancient history of this region, of whether it came under the suzerainty of various imperial powers that followed, like the *Mauryas*, the *Kushanas*, the *Guptas* or the *Pratiharas*.

Gujaras

It is believed that they first settled in Punjab and then moved to the northern portion of Bikaner. They were believed to be founders of the *Pratihara* dynasty.

Chauhans

Chauhan took over when *Pratihara* were not strong enough to look after their region. They settled in the more prosperous part of the territory east of the Thar.

The trade routes passed through this area, and there were settlements formed along, which served the travelers and tradesmen and prospered in their activity.

Rajput Clans

Different Rajput clans came into prominence, but it is not certain as to who ruled over this territory. There were different tribes like the ***Jats, Johias, Bhatias, Mohils and Sankhalas*** who lived in semi-autonomous states. They formed cantons, which bore the name of the community and was further divided into the district.

Mohil Rajput

They settled in southeast and east of *Jangladesh* (Bikaner district)

Bhatias Rajput

They were settled in west and north west of *Jangladesh* (Bikaner district)

During this time in Jodhpur on a word by Rao Napa Sankhala of Jangloo, said that Jangloo Pradesh has become weak and can be easily won, Rao Jodha gave permission to his son Rao Bika to establish a new state along with Rao Napa and Uncle Rao Kandhil.³⁰

On 30th September A.D 1465 (Ashvin Sud 10, 1522) Rao Bika along with uncle Rao Kandhil, Rupa, Mandan, Mandala, Brother Joga, Vida, Pandihar vela, Napa Sankhala, Mahata lala, Lakhan, vachavat Mahata Varsingh and other Rajput left from Jodhpur. It is said that Rao Bika left his father's kingdom with a small contingent of 100 cavalrymen and 500 soldiers.³¹

Rao Bika reached Deshnok via Bhandorva. where he took the Blessing from Karni Mata.³²



Fig.2.3_2

It was the prophecy of Karni Mata who is believed to have foretold a lot about Bikaner. The Goddess prophesied the establishment of the kingdom founded by Rao Bikaji. And blessed him the Kingdom to be greater than that of his father Rao Jodha of Jodhpur Kingdom.³³

Rao Bika freed the Bhati Rao Shekha of Pugal, from the Multan under the reign of King Langa and continued spreading his rule in Chandasar and other region and reached Kodamsar And decided to make his fort near Lake Kodamdesar, to form a new city and declared himself as a King in A.D 1472. Which was against the advice of Rao Sheka to build a fort in Jangloo.³⁴

Fig.2.3_2 Photograph of a painting showing the Karni Mata blessing Rao Bika.

Bhatti opposed Rao Bika and confronted a war with 2000 soldier against him. Rao Bika fought against Bhattis on the advice of uncle Rao Kandhil, Brother Vida and other Royal heads. Rao Bika won the battle against Bhattis. This consolidated Rao Bika's power in the region.³⁵

Bhattis kept attacking Rao Bika. Rao Bika along with the advice of Napa Sankhal decided to make his fort on some other region. Leaving Kodamdesar, in 1485 Rao Bika established his own territory and build a small fort at Rati Ghati and in 1488 he started building the city.³⁶

On 3rd April 1488 (Samvat 1545 Vaishakha Sud Beej, on Saturday) Rao Bika established an Independent State named Bikaner around the fort at Rati Ghati.³⁷

The map below shows the region of Bikaner as established by Rao Bika and other kings who help to extend the region till.



Fig.2.3_3

The region of Bikaner, stretching across northern Rajasthan state in India established by Rao Bika, was earlier known as **Jangladesh**. It included the present-day district of Bikaner, Churu, Ganganagar, and Hanumangarh.³⁸

Fig.2.3_3 Political map of Rajasthan in 1931 as Rajputana Agency under the British Empire (Reproduce from Rajasthan as a region, Vol.1, 1994.

(Maps used are for representation purpose only. They are not to be use fro navigational or political reference.)

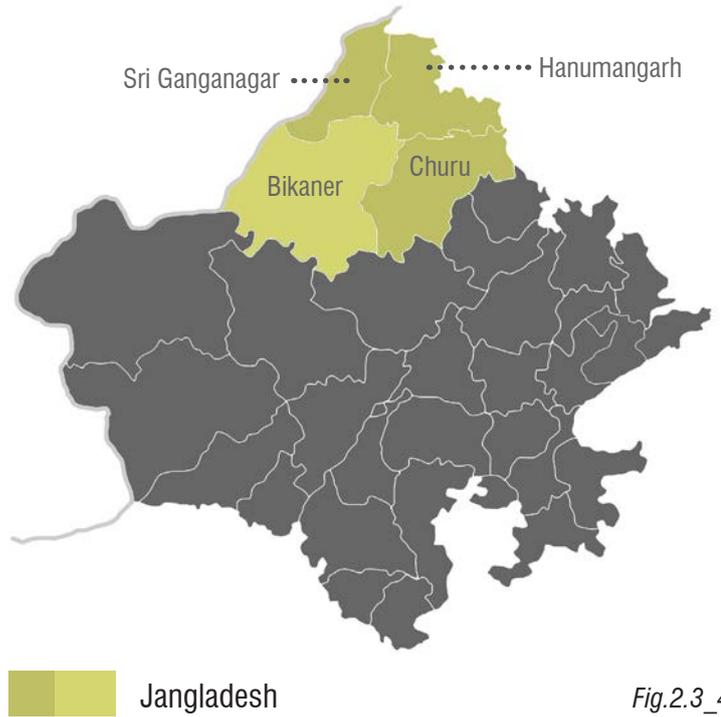


Fig.2.3_4

After the independence of India, Bikaner region (Jangladesh), was divided into separate district. Churu district came into existence in 1948, Sri Ganganagar founded by Maharaja Ganga Singh came into existence in 1949 and in 1994 Hanumangarh district was carved out of it, leaving the rest region as a Bikaner district.



Fig.2.3_4 Map is showing the historical region of BiKaner, earlier know as **Jangladesh**. Which include district of Bikaner, Churu, Hanumangarh and Sri Ganganagar post independence of India.

Fig.2.3_5 Map showing the Bikaner district.

(Maps used are for representation purpose only. They are not to be use fro navigational or political reference.)

Fig.2.3_5

2.3.2 Geographical Background

Bikaner with an area of 27244 sq.km is a district in the north-west of the state of Rajasthan in northern India between 27° 11' - 29° 3' N and 71° 54' - 74° 12' E.³⁹The region that is now Bikaner was a barren wilderness called *Jangladesh*, which lies in the Thar Desert know as Great India desert, is an arid region covered with sand sheets and sand dunes.⁴⁰

Though it was in the Thar Desert, Bikaner was considered an oasis on the great caravan trade route between Central Asia and the Gujarat coast as it had adequate spring water.

The district is bounded by Ganganagar District to the north, Hanumangarh District to the northeast, Churu District to the east, Nagaur District to the southeast, Jodhpur District to the south, Jaisalmer District to the southwest, and Punjab Province of Pakistan to the northwest.⁴¹



Fig.2.3_6

Bikaner has a hot semi-arid climate with very little rainfall and extreme temperature. In the summer season it is very hot when the temperatures lie in the range of 28–50.5 °C. In the winter, it is fairly cold with temperatures lying in the range of 5–23.2 °C

Fig.2.3_6 Map showing the Bikaner district and regions surrounding it. (Maps used are for representation purpose only. They are not to be use fro navigational or political reference.)

Bikaner district is composed of eight Tehsil, which includes *Bikaner, Kolayat, Nokha, Dungargarh, Chhatargarh, Poogal, Khajuwala* and *lunkaransar*.



Fig.2.3_7

The main city “Bikaner” of Bikaner district is located on the southwest of Bikaner at 736 feet from sea level. The old city of Bikaner is fortified with 30 feet high and 6 feet wide stone wall, which in length is 4.5 mile.⁴² It was built in 1787 A.D.

Fig.2.3_7 Map of Bikaner District show-
ings its eight Tehsil.

(Maps used are for representation purpose only.
They are not to be use fro navigational or political
reference.)

Growth of Bikaner city.

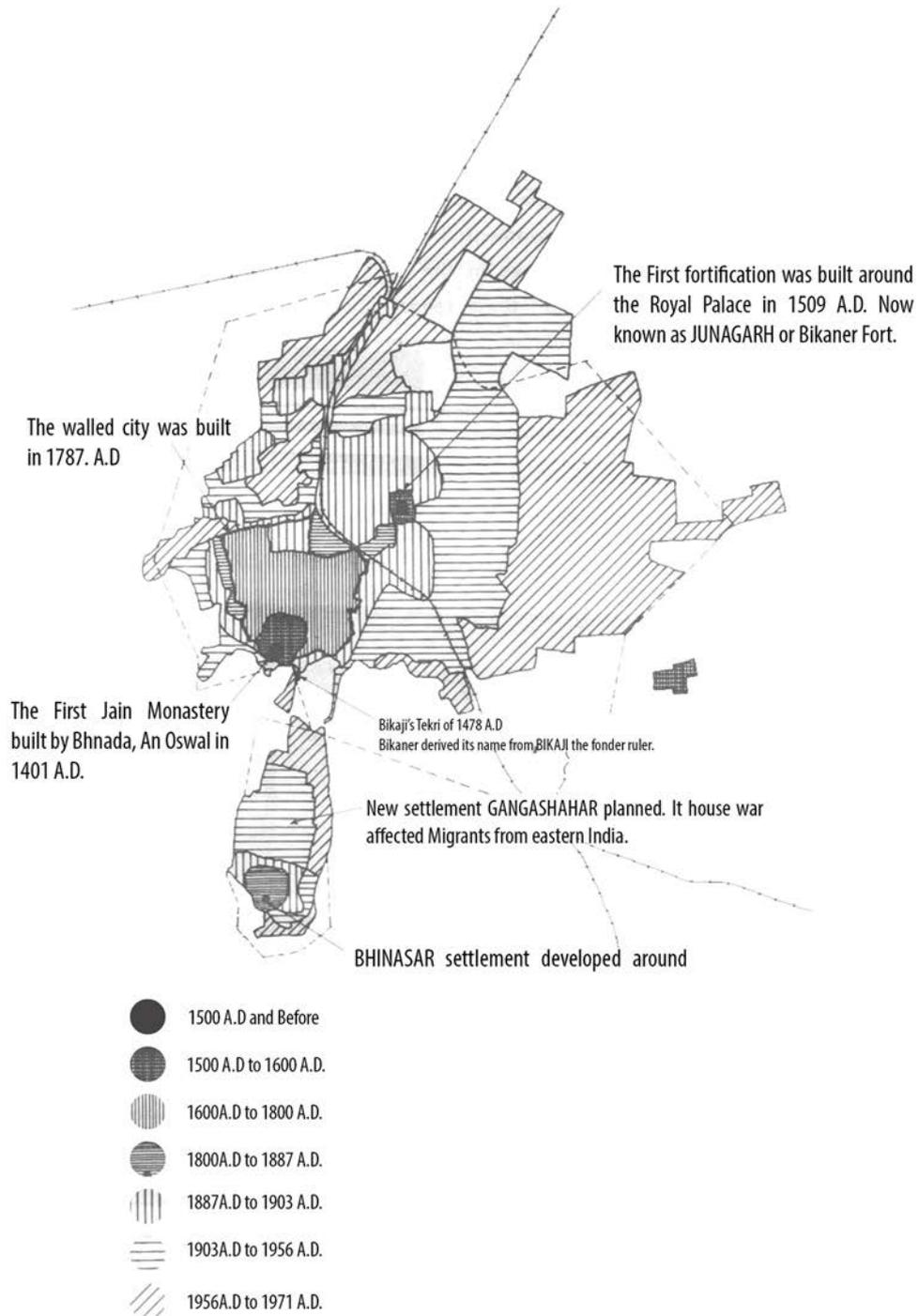


Fig.2.3_8 Map showing the history of growth of Bikaner city with time.
 (Maps used are for representation purpose only. They are not to be use fro navigational or political reference.)

Fig.2.3_8

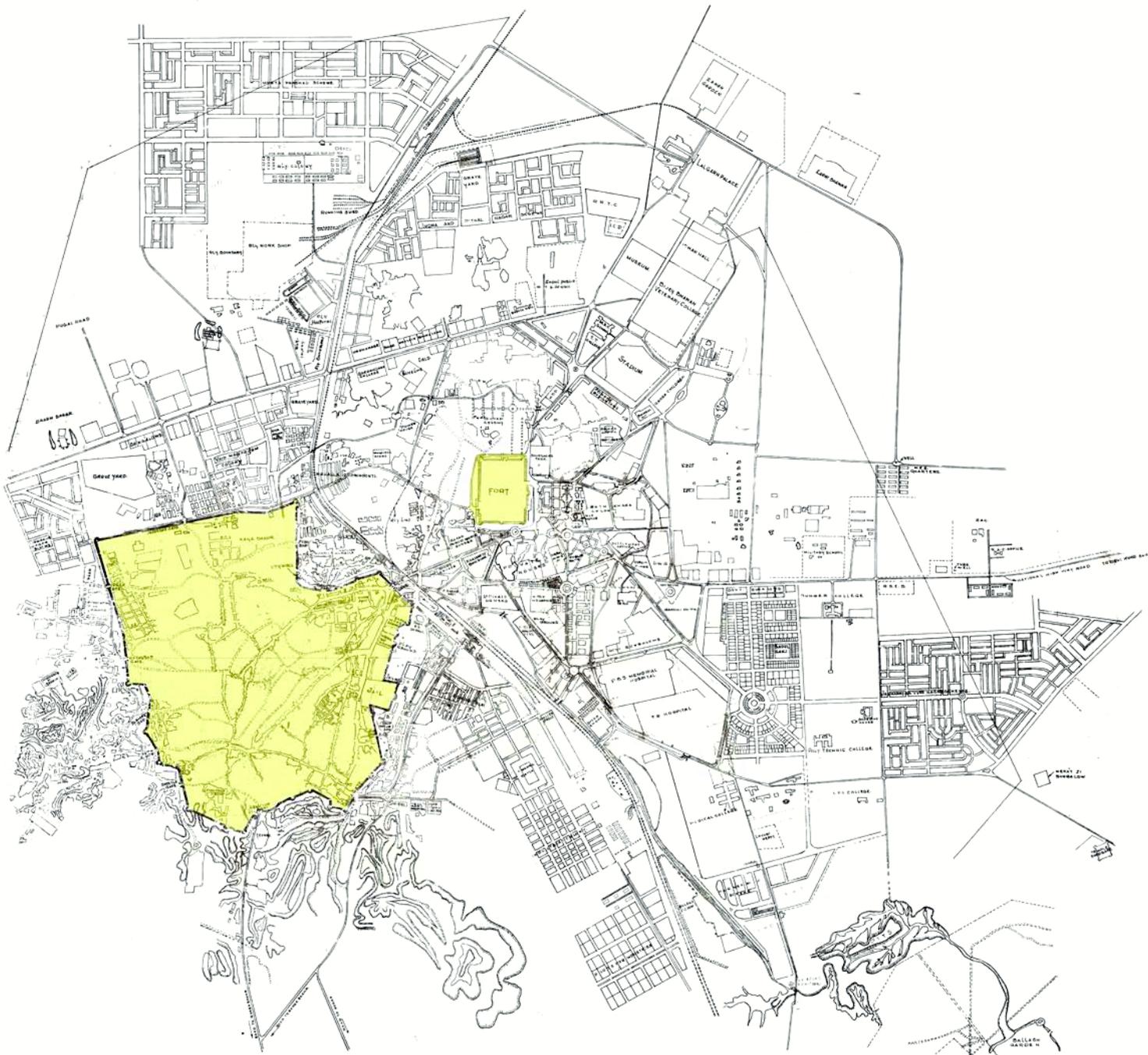


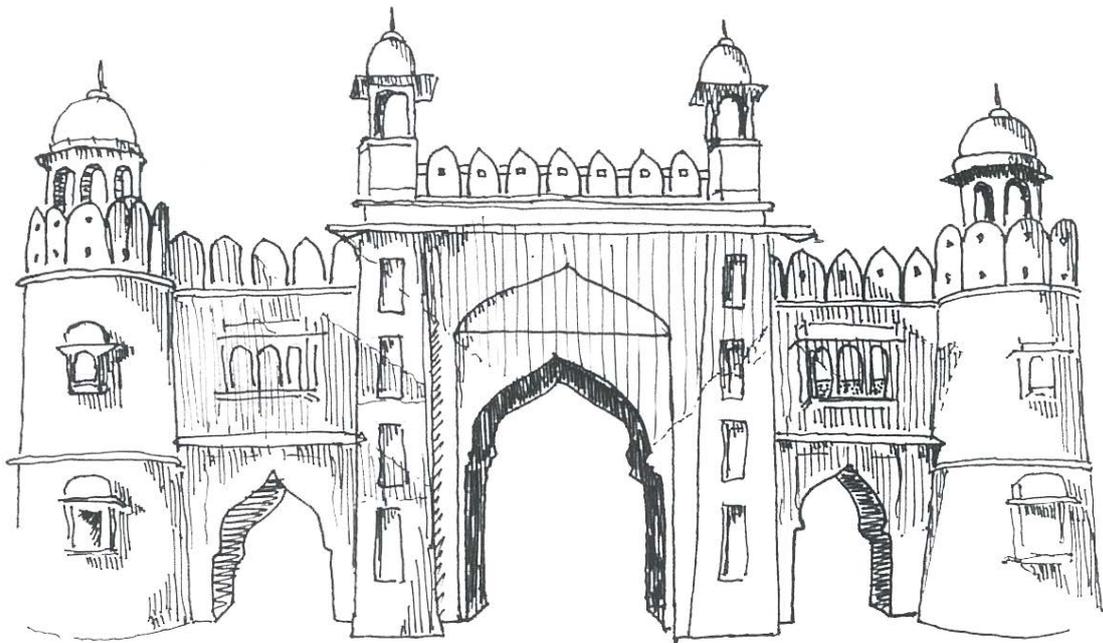
Fig.2.3_9

Fig.2.3_9 Bikaner city map showing walled city.

Map Traced by: Sikander Usta Jr. D/Man
and checked by: H.D.Suthar Sr. Draughts
Man

(Maps used are for representation purpose only.
They are not to be use fro navigational or political
reference.)

2.4 Introduction to walled city of Biakner



The walled city of Bikaner is entered through Kote gate, which further dissolves into narrow lanes lined with century's old havelis of wealth merchants carved in dulmera stone. The walled city is the accumulation of different caste and occupational community, giving a unique identification to that area and the community. There are two Jain temples in the walled city, Bhandeshwar & Sandeshwar Temples, ornately carved & embellished with frescoes, mirror work, gold leaf scroll-work inside.

2.4.1 The walled city

The most important part of Bikaner in terms of culture and celebration is the Walled City, which is 636 feet high from the sea level. The walled city is surrounded by high fortification comprising a 7 km long wall, which encircles the old city and has five main Gates and nine small gates called 'BARI'.⁴³

The five gates are *Kote Gate*, *Goga Gate*, *Sheetla Gate*, *Nathusar Gate* and *Jarusar Gate*. And nine Baris are *Vanisar Bari*, *Ustan ki Bari*, *Hamalo ki Bari*, *Bidasar Bari*, *Pambu Bari*, *Kasaiyo ki Bari* and *Edigha Ki Bari*.⁴⁴



Fig.2.4_2

The walled city is amalgam of many castes and so it is divided into various division based on caste. In walled city the residential area of higher caste is called *chowk*, the residential area were all occupational caste and craftsmen live is called *guwad* and the mohalla is also a residential area. In past walled city of Bikaner consisted of total of 76 mohalla, chowk and guwad based on caste. 27 Chowk belonged to Jain oswal caste, 14 belonged to Pushkarna Brahman, 11 chowks belonged to Maheshwari caste, 7 chowks belonged to other Brahman caste, and rest mohalla and guwad Belonged to occupational caste. Like *Sunaro ki Guwad*, *Darjee ki Guwad*, *Harijan ki Guwad*, *Ustan kaMohalla*, *Lohar ka Mohalla*, *Gurjaro ka Mohalla* etc.⁴⁵

Fig.2.4_2 Photograph of early time of Kote Gate, Bikaner walled city, Bikaner.

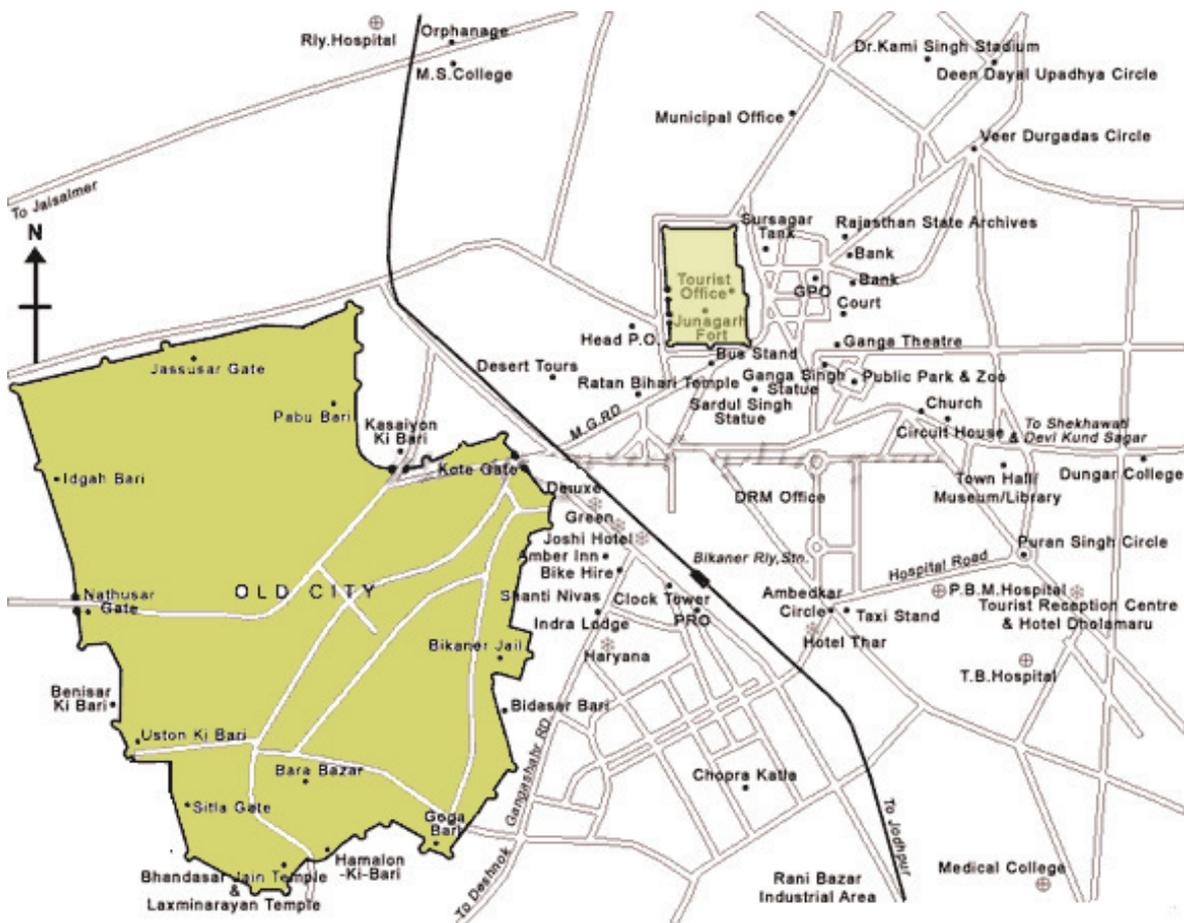


Fig.2.4_3

Fig.2.4_3 Road map of Bikaner showing the boundary of Walled city of Bikaner.

(Maps used are for representation purpose only. They are not to be use fro navigational or political reference.)

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Chapter 3

Paata : Socio-Culture context

Furniture is generally isolated as to their function, and it is the user who is responsible, as his needs dictate, for their Coexistence in a functional context.¹

3.1 Origin of *Paata*

3.1.1 Historical Origin

The existence of *Paata* is 300 years old in the walled city of Bikaner on the basis of historical evidence.

But according to public recollection, the origin of *Paata* goes back to the time of Rao Bika when Bikaner was established, because King always uses to rule a state seated on a Throne (*Paata or Takht*). In the local language, the coronation ceremony is called "*Paata baithana*".²

The origin of *Paata* was led due to a historical incident happened with Rao Bika and Rao Jodha the king of Jodhpur. One day in an assembly meeting in a Durbar of Rao Jodha, 27-year-old Rao Bika was seated next to his Uncle Rao Kandhal. Both of them were busy talking to each other that they ignored the discussion happening in the Durbar, and the very moment Rao Bika and Rao Kandhal break into a loud laughter, disturbed the assembly meeting.³

Noticing this incident, Rao Jodha taunted saying that, Rao Bika and Rao Kandhal are talking so discreetly as if they are establishing the new Kingdom.⁴

At very moment Napa Sankhala of Jangloo said that jangloo Pradesh has become weak and can be easily won, Rao Jodha gave a word to his son Rao Bika to establish a new state along with Rao Napa and Uncle Rao Kandhil.⁵

Being offended by the comment and on the word of King Jodha and inspired by Rao kandhal, Rao Bika set for the establishment of a new state, leaving his father claim.⁶

During that time, every ruling dynasty were recognized by a set of Heirlooms and state symbols.

Well, Rao Bika did not claim his father's state Jodhpur as the heirloom, but he demanded the heirloom of Rathore Dynasty to build his own Kingdom. Denying this, Rao Jodha told Rao Bika that he can have the heirloom of Rathore Dynasty after his death.⁷

After the death of Rao Jodha, Rao Saatal was coronated as king of Jodhpur, but soon he got killed by Mughals. After that, his younger brother Rao Sujaji became the ruler of Jodhpur. Knowing this Rao Bika asked his brother Rao Sujaji to hand over the heirloom of Jodhpur, Rao Sujaji denied the Rao Bika's order which led Rao Bika to attack Jodhpur and claim the Heirloom(State Symbol).⁸

The set of heirloom consisted of Chatra, Chavar, Dhal(shield),



Fig.3.1_1

Fig.3.1_10 Photograph showing the Heirloom objects of Bikaner state (under King monarchy).

Talwar(Sword), Qatar(Poniard), idol of Nagenchiji Devi, Takht, Karand, Bhavar Dhol, Berisal Nagada, a horse and Bhujajee.

The Takht is a religious Throne of Royal Court. It is also known as *Paata*. It is one the heirloom of Rathore dynasty.



Fig.3.1_2

When Rao Bika Seated on his *Takht* (Throne), he addressed to the heads of Royal Court “**Hum Baithe Apne Darbar Paat, Tum Sab Betho Apne Dere Paat**”, meaning today I have seated on Throne of Durbar and you all seat at the throne of your houses (*Dere*).⁹

From this day onwards *Paata* were found outside the havelis of Royal court members, Royal merchant families and in Chowks.¹⁰

The evidence of *Paata* is also found in the books of panchayat of different caste, which dates back to 1653. At that time the panchayat *Paata* were *Chowki*, a *Chowki* is a solid raised seating of stone in public domain.¹¹

Fig.3.1_2 Photo of a throne of the Rathore clan called *Takht* colloquially. On display at Durbar Hall, Junagarh fort, Bikaner. It was handed over to Rao Bika.

In this manner, the tradition of *Paata* existed from the 17th century in public life in the walled city of Bikaner. While according to people recollection, the paata has prevailed for 500 years since Rao Bika's time.¹²

Initially, instead of Wooden Paata, stone Chowki was established. Until today in few chowks, along with Paata, a chowki is found, still, some social and cultural rituals are still done on or in presence of chowki. Thus the ancient form of Paata is Chowki. Later the Paata were made up from wood, and slowly the Paata become the part of the life of the walled city.



Fig.3.2_1

Name: *Takht (Paata)*

Location : Junagarh Fort, Bikaner

Geo Tag : 28.022070, 73.317772

Description: The Throne (Takht) is made from Sandalwood. The intricate *Jalis* are carved out in sandalwood, which forms the surface of the throne. It is a rectangular throne with one-third, three-sided backrest. The king seats along the length. The legs are turned in sandalwood. The brass flat strip is used to join the different sandalwood pieces together. A metal rod bracket is fixed at leg providing additional support to the Throne.

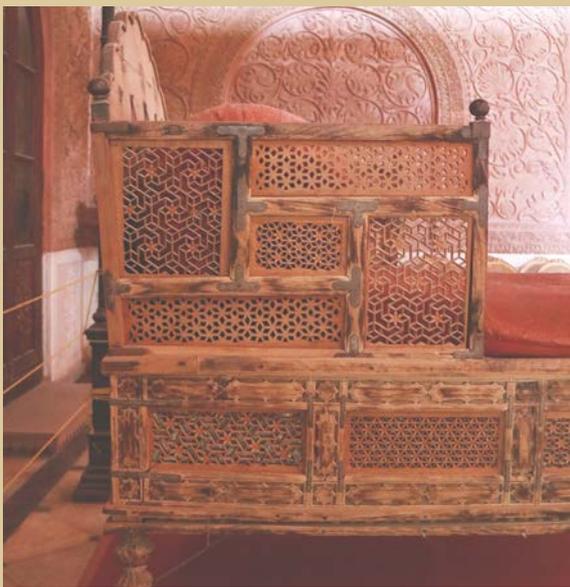


Fig.3.2_2

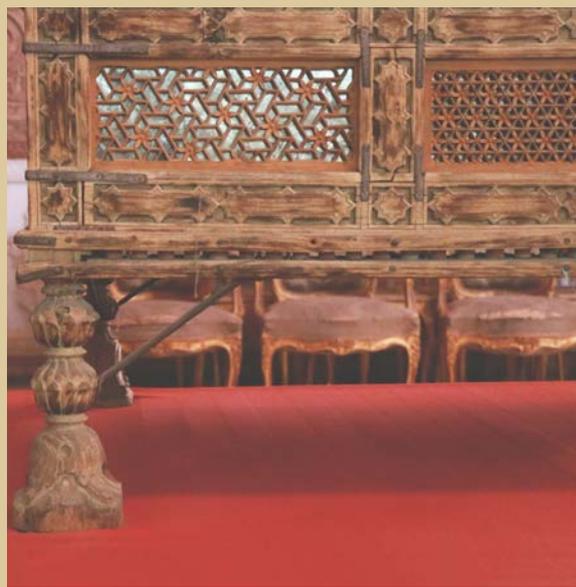


Fig.3.2_3

3.2 - Etymology of *Paata*

In walled city, Bikaner the Paata is the part of the culture. Which is the most distinctive feature of walled city of the Bikaner.

3.2.1 Paata

The word *Paata* is derived from Sanskrit word '*Paat*', meaning the distance between two shores. In similar fashion *Paata* is a cultural component which decides the boundary of social intercourse between castes.¹⁵

There is no tangible evidence of when did the word *Paata* came in use. According to the reference available and the Glossary, *Paata* is a object constructed from *Paatiya* (wooden planks). Thus Paata is physical object made up of wooden planks.

From the socio-cultural point of view, Paata is a regulatory component, on which the tradition and the custom & rituals of society prosper.

Fig.3.2_1 Photo of a throne of the Rathore clan called *Takht* colloquially. It is throne of Rao Bika. On display at Durbar Hall, Junagarh fort, Bikaner.

Fig.3.2_2 Photo of an armrest of a *Takht*, showing the Panel of jalis in sandalwood.

Fig.3.2_3 Photo shows the detail of leg of a *Takht* of Rathore clan.

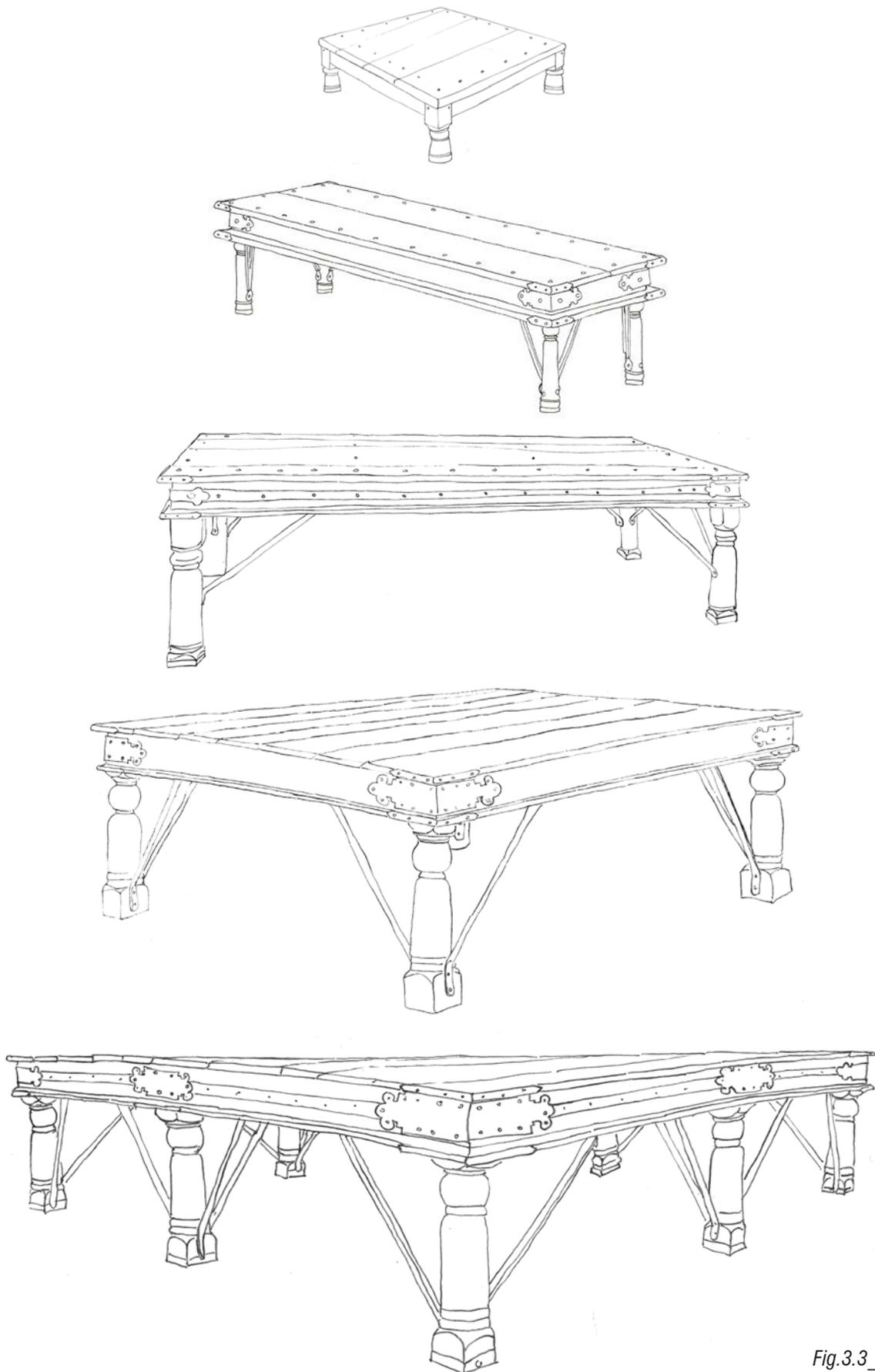


Fig.3.3_1



3.3 *Paata* in the walled city

3.3.1 Physical aspect of *Paata*

Paata is basically a square, raised wooden platform with turned legs and iron rod or bar used as bracket support to *Paata*.

Usually, *Paata* is found in a large open ground (Plaza) within a *chowk*, *guwad* or *mohalla* and outside the havelis of the wealthy owner. It is also found in private spaces of havelis, used for various domestic activities. The *Paata* is made from wooden planks. The size of domestic *Paata* varies from 1x1, 2x2 or 2x4 feet with four turned wooden legs and metal members for additional support. The size of public *Paata* (found outside the haveli) varies from 7 to 10 feet or more, with four, seven or nine heavy turned legs as per the size either with fine carving or simple carving. The domestic *paata* are made up of silver, sandalwood or normal wood as per the need. The foundation of an individual or a family is based on the *Paata*.

The existence of *Paata* is 300 years old in the walled city of Bikaner. The public *Paata* documented in this field trip is roughly 60-100 year old.

Paata is known by many different names as per its size and function in public and domestic domain. The *Paata* used in domestic settlement are known by *Takht*, *Bajot*, and *Chowki*, while *Paata* used in public domain i.e. in *chowks* and *mohallas*, are known by *Paata* or *Baithak*. But the term *Paata* is very popularly used in the walled city.¹⁶

3.3.2 Cultural relevance of *Paata*

Paata is a part of culture,
but in the walled city it is itself a culture

The culture of Bikaner is called *PAATA* Culture¹⁷. *Paata* is the foundation of the culture. *Paata* is involved in all the rituals from birth to death. Even in religious and cultural celebration, the presence of *Paata* is necessary. *Paata* becomes a gathering point for the resident of a community to meet friends and family to talk about business and social

Fig.3.3_1 Sketches of different types and size of *Paata*.

life. It becomes a center for news and information.

Paata outside the haveli and in chowks are male dominance furniture. It is mainly used by men from age 25 to 80, but mainly by elder age group. When the working male of a house go out for a business trip, the elder seating outside the house on *Paata*, in a way protects the women and also look after the community if any misbehave is done by people.

Thus *Paata* helps in regulating the functioning and continuity of harmonious socialization and social control in the community and very less rate of any misconduct happening.

When a woman passes by the *Paata* in the street, she veils her face, even if the men seating on the *Paata* are of her son's age. According to them, *Paata* is the place where their grandfather and grandfather-in-law seat, even their soul is embodied in *Paata* as they have spent most of their time on paata. Thus anthropologically *Paata* is Totem.¹⁸

Fig.3.3_2 Illustration showing people seating *Paata*.

Paata culture is the basis to prosper the community in the walled city.

3.3.3 social relevance of *Paata*

The *Paata* found in the public domain, either belongs to a resident of a Haveli, community collectively or it belongs to the panchayat.

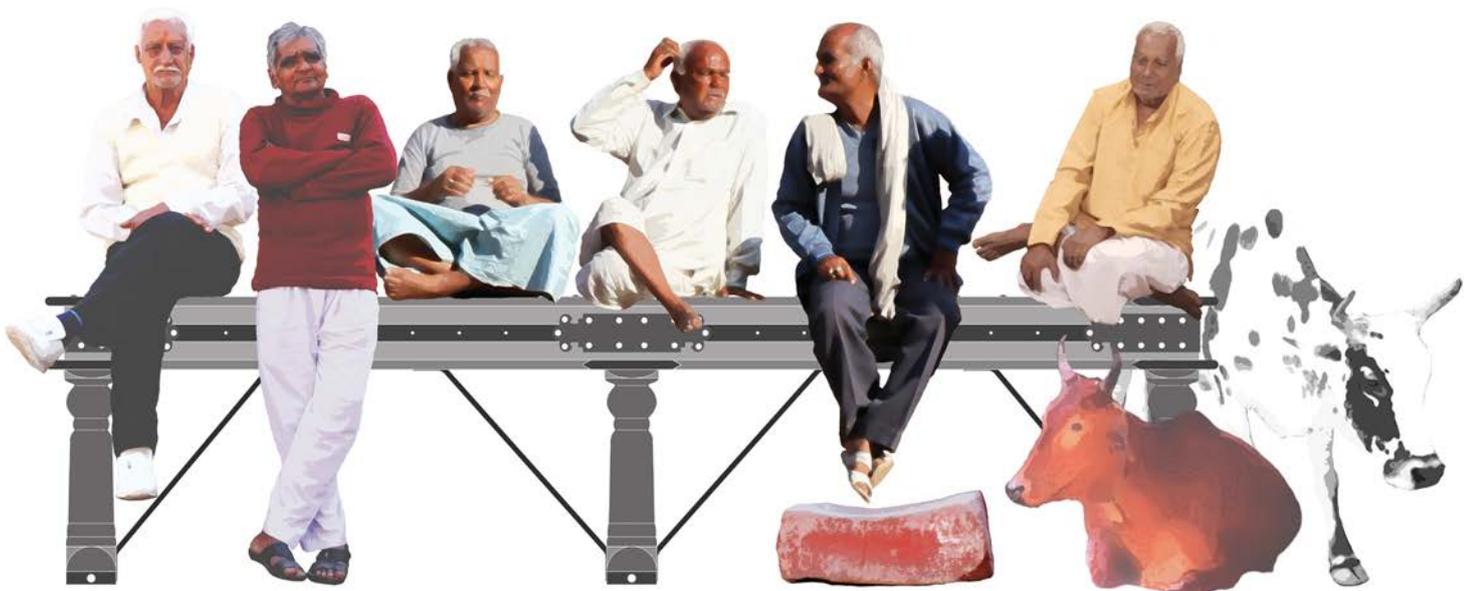


Fig.3.3_2

The resident of the Havelis in the walled city get made Paata outside their house for social development of community and to show people their social status as they are rich and belong to Royal hereditary family.

Along with *Paata* made with an idea of social development, control and social unity in the community, *Paata* is also the medium of entertainment; people would gather at *Paata* to meet, talk and share to people about their social lives and business. Thus *Paata* was a medium to develop a mutual relationship with the community.

Thus *Paata* plays a complex sociological role in the walled city. *Paata* is a social and cultural entity which directs the social control, social relationship and change in socio-culture structure for a collective consciousness and social welfare of the community, within the boundaries of cultural values and tradition.¹⁹

3.4 Classification of *Paata*

1. Based on Ownership

- (a) *Paata* owned by an individual. (Private *Paata*)
- (b) *Paata* owned by a community. (Public *Paata*)

2. Based on Use

- (a) *Paata* within the built environment.
- (b) *Paata* outside the built environment.

3. Based on Physical appearance

- (a) Minimal *Paata*
- (b) Ornate *Paata*

1. *Paata* based on Ownership

On the basis of ownership, *Paata* can be divided into two parts

(a) *Paata* owned by an individual. (Private *Paata*)

Before independence the personal *Paata* dominated the walled city. During the monarchy in walled city, only the member of royal court would have *Paata* outside their *Have-li*, and it cannot be used by common or lower caste person. Even the people of higher caste would sit on *Paata* with the permission of the owner.

During that time, it is said that on the *Paata*, a *Gaddi* (mattress) with white sheets and bolster were placed along with silver jug. And the owner, who is the member of the royal court, would sit on the *Paata* and the common public would sit on the ground and talk. On the basis of these facts, private *paata* were the *Takht* of a royal member of the court, from which they rule the community.

Post-independence, the dignity of the *Paata* as a royal *Paata* devalued and it ended.

The Private *Paata* are those, which was get made by an individual. And till today the family of that individual has the ownership of that Paata and it is still addressed by an individual who got it made. Paata is placed outside their Haveli.

(b) Paata owned by a community. (Public Paata)

The Public *Paata* is the one ones which are get made by either Panchayat, a temple trust or by a community donation. It is collectively used by everyone in the community. The Public *Paata* are found in Chowks and Mohollas.

Initially, in the walled city, the Paata were owned and arranged by a collective organization, which later was owned by Panchayat. The panchayat Paata is the personal Paata of the specific caste and community i.e. a chowk or a mohalla.

During any social function like marriage or ceremonial acts and sacrificial rites, an individual or the family can take the *Paata* for few days with the permission of Panchayat and can arrange the *paata* outside their house. Panchayat *Paata* is also used for social celebration, festivals, public meeting and for panchayat meeting.

2. Paata based on Use

(a) Paata used within the built environment.

The Paata used within the house vary in size and form as per the function it is used for.

The Paata within the house is used in Puja room to keep the idol or images of God and Goddesses on it to show respect. The paata is the throne of God

They are used in daily religious rituals and in Pujas. Besides religious function, it is also extensively used in a ceremonial occasion like marriages. Paata is also used to provide a raised platform to keep the Thalli while eating food from it. It is also used to have a raised seating from the floor.

The size of this *Paata* varies from 1x1, 1x2 to 2x2 ft. Its sizing is based on the ergonomic dimensions considering its use. *Paata* is a multi-functional stool that has multi-utilitarian functions suitable to the need of the user.

Another type of *Paata* is also found in use within the house. The *Paata* is longitudinal in shape. It is found in a *Barsali*, a lobby after the entrance in a *Haveli*. It is used to rest and sit on it. The length of *Paata* is 5 ft and width varies from 1.5 to 2 ft. and raised 1 ft from the ground. The size of the *Paata* can vary up to ergonomically a person can sleep on it.

(b) Paata used outside the built environment.

The *paata* found outside the house, in a public domain is used for public meetings, it is used people to sit and recline at ease. *Paata* is also used as a stage for entertainment. The *Paata* found outside the house, in public domain has Multi - utilitarian functions suitable to the need of the community.

The shape of the *Paata* is almost squarish. The size of these *Paata* varies from 7 to 10 ft and raised 2.5ft from the ground. They are heavy built and can entertain the weight of 10-12 people at a time.

3. Paata based on Physical appearance.

On the basis on physical appearance *Paata* can be classified into two categories minimal *Paata* and ornate *Paata*.

(a) Minimal *Paata*

The *Paata* with a simple shape and four legs with no decoration come under a category of Simple *Paata*. *Paata* belonging to Brahman caste are simple *Paata*.

(b) Ornate *Paata*

The *Paata* which looks good aesthetically because of its shape and ornamentation are included in this category. The domestic *Paata* is either made up of wood or covered with silver sheet with embossed motifs for household use or for religious use. The *Paata* found in a public domain with four legs or more legs would have finely craved legs and painted metal bracing on corners. The *Paata* would have a '*Chattari*' on it and on few *Paata*, *Paata* would have all the side are covered with wooden '*Jali*'. All such *Paata* belongs to a caste of the prosperous family.

3.5 Usage of *Paata*

Paata is a part of a complex cultural institute which has various functions and dimension to it. The utility of the *Paata* in the lifestyle of the walled city of Bikaner, in itself, is an epitome. The social and cultural function of *Paata* can be understood in daily use and occasional use.

3.5.1 *Paata* in daily use

The *Paata* is used by the age group of 25-80-year-old. It is used by the people when they get free time i.e. in evening or on holidays. Through the observation in different chowks and mohallas of the walled city, it is found that *Paata* is mainly used by elderly age group. They spend most of their time on *Paata*, and sometimes from morning to evening.

The *Paata* found in chowks and mohallas are male dominant, if it is used by a female then it is considered inappropriate and undignified.



Fig.3.5_1

Fig.3.5_1 Men seating on paata playing cards and socializing.

The *Paata* is used for many different activities in day to day life. It is used for religious recital and function, for entertainment, people use *Paata* for recreational and to relax, *Paata* becomes the center for people to meets friends and fellow member of the community to exchange thoughts and wisdom, to discuss the news about the country and abroad. It is observed that people occupy *Paata* in the evening till late night, involved in different activities likes playing card

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games etc. This way it controls any type of ill-activities happening in public domain and helps in maintaining a peaceful environment in the community.



Fig.3.5_2



Fig.3.5_3

Fig.3.5_2 Men seating on the Paata, playing cards. Kocharo Ka Chowk, walled city, Bikaner. (104 year old Paata)

Fig.3.5_3 Men seating on the Paata with a Chattari, socializing with each other. Damani Chowk, walled city, Bikaner.

Paata as medium of Public Communication

Paata is the most assertive medium for Public communication. And it is a most important medium in terms of information and news exchange. People meet at Paata to have a political and religious discussion, to talk about their social life and family. Paata in every Chowk becomes a landmark to meet people. If u want, to meet any person or give him a message, you can ask anyone seated on Paata or give them a message and would easily reach to that person.

If there is any event happening within the walled city, be it related to birth, someone's death, engagement, wedding or any type of local, national or international news, the communication center of all this information is Paata.



Fig.3.5_4

Thus *Paata* is where the information accumulates and it where the information spreads.



Fig.3.5_5

Fig.3.5_4 People seating on *Paata* reading newspaper, listening to radio and socializing with passerby. Kikani viyaso Ka Chowk, Walled city, Bikaner.

Fig.3.5_5 4-6 *paatas* kept together on side of a road, forming a seating arena for community gathering, with *mandap* over it. Mawa Patti.

3.6.2 Paata in occasional use

Religious rituals and Paata

Bikaner city, it is also known as a religious city by locals. As before independence, many religious ceremonies used to happen in the walled city like Yajna, rituals and Katha vanchan. Thus religion is the primacy in the lives of people of the Walled city.²⁰

According to the fundamental facts, the identity of all the religious rituals are the recognition of Paata as a religious entity and its use. In many religious rituals, a Paata is covered with a red cloth on which the idol of God is kept for the Puja. The shape and size of this Paata are different, and it is only used as the throne for the idol of God. They are highly decorated Paata and made out from either wood or silver.²¹



Fig.3.5_6

Apart from this different religious glyph are made on Paata. The glyphs are made up using rice, *supari* (dry betel nut) and *moong dal*. Even prasad to God is offered on *Paata*. *Paata* is used everywhere in the temple, at home, and in religious rite and at every place it is considered holy.²²



Fig.3.5_7

Fig.3.5_6 A small shrine within the house.

Fig.3.5_7 Paata used during religious ceremony.

Marital Rite and Paata

Paata is mandatory in a wedding ceremony, either in a Hindu or Muslim wedding. In all rituals of the wedding from start to end the Paata is involved in a different manner. The rituals of Ganesh Sthapana is done on Paata. The important ritual of Hindu weddings, which represents the legal part of a marriage, is called Mangal Pheras, where the bride and groom circle the sacred fire and the Paata seven times. ²³



Fig.3.5_8

Paata is also used for wedding feast, where a group of 3-4 people sit around the *Paata* and have the food together. The *Paata* used for wedding ceremony and wedding feast are smaller in size

Social exchange and *Paata*

By social exchange it means the exchange done by family during wedding, birth or on demise occasion. In walled city, the social exchange is given high importance.

During wedding, the gifts exchanged by the brides family and grooms family are exhibited to relatives and neighbors as an indication of social stature. These objects are then placed on the *Paata* outside the house and it is showed to the neighbors and to the people seated on *Paata* as a witness of what all things are given and received by either family. Which also includes a *Paata* which is given by her family as a legacy furniture.

Fig.3.5_8 A *Paata* used during wedding ceremony.



Fig.3.5_9

Folk celebration and Paata

The multi-hued customs and captivating ritualistic practices during festivals and social function is the identity and foundation of the walled city of Bikaner, which enamors you into a pleasurable state. The folk celebration is also a community-oriented celebration. The people of Bikaner celebrate several festivals, like Narasimha Jayanti, Holi, Diwali, Gangaur festival. They all are celebrated in a unique way in the walled city.

Narasimha Jayanti

The Narasimha Jayanti is celebrated based on a folk story of a divine intervention of God Narasimha to curb evil and conquer calamities. Narasimha Jayanti is highly auspicious to the Hindus. It is believed that on this day Lord Vishnu had re-incarnated himself as Narasimha (half man and half lion Avatar) to protect his devotee Prahlad and kill the demon king Hiranyakashipu.²⁴

The Narasimha Jayanti is celebrated in form of Narasimha pageant. In which the Prahalad a Daitya king is made

Fig.3.5_9 Wedding gift for Bride and Groom send by Brides family to groom. It includes a small Paata.

seated on a chair on Paata, in front of that a person in the costume of God Narashima dance on Paata and on in front of Paata on a floor, Hiranyakashipu dances with lash in his hand. Narasimha Jayanti is celebrated in Vaishakha month of Hindu calendar, which commences the festival of Holi.²⁵
Holi



Fig.3.5_10

Holi is also celebrated in a unique way in the walled city. Seven days before Holi, a Puja of wooden mast known as “Khambh” is done with all ritual and are then placed in main chowks and mohalla of a community. Along with this folk, plays are also organized. On Holi people gather on Paata for musical concert and serve *thandai* to the people gathered.



Fig.3.5_11

Fig.3.5_10 Celebration of Narasimha Jayanti.

Fig.3.5_11 Musical Jam playing Harmonium, Dhol, Nagada and reciting folk song, seated on Paata, during Holi.



Fig.3.5_12

Folk play

In the walled city of Bikaner, the folk act would have a play in which the protagonist is historical, social or religious person and the life story of the person is taken as the content of the play. The folk play is performed in chowks, during *Falgun maas* in Holi festival or prior to Holi celebration. The other type of act would be a notional play, in which the topic of the play is related to a social, religious or political issue with a harsh irony and satire. And in another type of folk act, singing is used as a style of narration. Where a performer recites a verse of a song and performs along with it. The play should have *Abhinaya* despite it being a classical or a modern play.²⁶



Fig.3.5_13

Fig.3.5_12 People seated on *Paata*, making *Thandai* and serving people during Holi as a tradition.

Fig.3.5_13 Photographs shows the play performed on *Paata* during Holi.

Usually, a stage is planned according to the type of play, but in the walled city of Bikaner, *Paata* becomes the stage for

the play. The people from chowks and mohalla who are interested in acting performs in the play. Since it is considered undignified for a female to use public Paata, the role of a female in a play is performed by a male dressed as a female.



Fig.3.5_14

Gangaur

Holi is a massive riot of colors and celebration here, the fun and festivities by no means end with it, but continue in the form of the *Gangaur* festival, which commences on the day after Holi, and continues for 18 days thereafter.

Gangaur celebrated in the month of *Chaitra*, is one of the most important and colorful festival in Rajasthan and it is observed throughout the state with great enthusiasm and devotion by womenfolk. The festival is the celebration of onset of spring, harvest season and martial fidelity.²⁷



Fig.3.5_14 Photographs shows the play performed on *Paata* during Holi.

Fig.3.5_15 Gangaur mela at Junagarh fort

Fig.3.6_15

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The word Gangaur is made of two words 'Gana' which is synonymous with Lord Shiva and 'Gaur' which stands for *Gauri* or *Parvati*. Lord Shiva and Goddess Parvati are worshiped in the Gangaur festival.²⁸



Fig.3.5_16

According to a folk story, it is believed that *Parvati* returned to her parental home during *Gangaur*, to bless her friends with marital bliss. On the commence of *Gangaur*, the womenfolk makes beautiful images of *Gauri* in clay or a wooden idol painted by reputed painters called *Matherans* with an image of *Gauri* and decorated with colorful sari and ornamentation, which women folks place on their head on the *Paata*, and bring home. It is the arrival of *Gauri*. The *Gangaur* idols are placed on the *Paata* which commence the *Gangaur* Puja.



Fig.3.5_17

Fig.3.5_16 Idol of Gangaur.

Fig.3.5_17 Idol of Gangaur, depicting Lord Shiva and Goddess Parvati.

The unmarried women worship Gauri for blessing them with a good husband, while married women do so for the welfare, health, and longevity of their husbands and cheerful married life. The Goddess Parvati symbolizes the *Saubhagya* (marital bliss).²⁹

On the seventh day the Ganguar fest, all the young girl and women dress in traditional clothes and walk through the community in the walled city with a *Ghudlia* on their head.³⁰ It is a pot with a punctured hole which carries a diya within. The entire ritual is accompanied by the singing of traditional songs by the girls and women, which makes it most unique.

Based on a folk story, on the last day, *Parvati* is given a grand farewell by her loved ones and Lord Shiva arrived to escort her home. That's when the celebration reaches the zenith, on the last days.



Fig.3.5_18

The beautifully dressed women carry ornamented idol of *Isar*(Shiva) and *Gauri*(*Parvati*) on their head placed on a *Paata*, The parade comes back after offering water to the idol of *Gauri*, which faces toward the backs on the first two days. On the last day of the festival, *Gauri* faces in the direction of the *Isar* and festival comes to the end with a departure of *Gauri* with *Isar* accompanied with the procession of local band along with the pageantry of elephants, camels, chariots, bullock carts, palanquins and groups of local performing artists.³¹

Fig.3.5_18 Procession of people carrying the idol of Lord Shiva and Goddess Parvati placed on Paata during Gangaur.



Fig.3.5_19

Diwali

In Diwali, people take the burned torches and place it either in the front of the temple of *Paata*.³²

Bikaner, a city formed in the oasis of the desert state comes alive with music, dance, folk performances, colors, and joy during festival festivities that enliven the chromatic narrow lane of the walled city that sports bright glittering hues of Havelis in *Dulmera* stone and craggy and rustic desert.

Thus *Paata* finds a special cultural significance in the community and plays an important role in functioning and continuity of local tradition during festivals, social events, and religious rituals. The shape, size, and ornamentation of the *Paata* used by an individual, by a family or a community are governed by the social and economic structure of the user or the community.

Paata is functioning as a social representative in walled city imparting the cultural change with time and situation. Thus *Paata* is the most important social entity in the walled city.

Fig.3.5_19 Procession of people to Junagarh fort during Gangaur festival.

Fig.3.5_20 Illustration Showing different celebration done on Paata.

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Fig.3.6_20 Illustration Showing different celebration done on Paata.



Fig.3.5_20

3.6 Dwelling in the walled city and Paata

3.6.1 The Haveli.

The walled city of Bikaner is an amalgamation of many chowks and Guwads with narrow lanes and series of huge mansions called *Haveli*, which is a unique architectural style of houses in Rajasthan due to its topography and climatic condition.

The word Haveli is derived from the Arabic language, meaning “Partition” or the “Private space”. The word haveli is now used as a generic term for a different style of regional mansion and houses, with a distinctive element of the courtyard.³³

Bikaner is the city of havelis. There are more than thousand Havelis in Bikaner intact till date and few of them date back to centuries old. One of the finest haveli in the walled city of Bikaner is the Rampuria Haveli, despite the ravages of time, it still stands magnificently tall and proudly.

These mansions were commissioned by the King of Bikaner for the merchants of the city so that they make Bikaner their home and do business and trade from here, which played a huge role in making the city a major commercial center. Thus the havelis are the residence of wealthy merchants who lived in far-off lands for major part of the year, where they went to earn money. They mostly came back to the city to rest and stayed in havelis for leisure and relaxation. The Havelis were a symbol of their wealth and status and their love for architecture and colors.³⁴

Havelis in Bikaner are a marvelous construction in terms of residential architecture. The havelis in Bikaner is usually two to three storey high, decorated with an intricately carved facade in Dulmera stone, which is Pinkish red in color giving a peculiar character to the walled city of Bikaner. The carving finds the best expression in Havelis of Bikaner.

The most Havelis are encased with a grand entrance, latticed windows, *Jharokhas*, *Diwankhanas*, and *Gumaharias*. The facade is dominated with ornately carved *Jharokhas* along with *Jali* work in stone which creates a beautiful effect.

Every haveli consists of a number of rooms, big and small, made for special purposes, out of all the rooms the most exquisite room is the Mol or Mahal decorated with beautiful Gesso style wall painting, which includes the floral motifs paintings with natural vegetable color. Mainly red and green are the ground colors. The entire surface is then coated with traditionally prepared varnished from linseed oil, called *Chandras* along with gold paint. The light coming in, from the wooden jali in Jharokhas accentuate the colorful motifs and gold paint on the wall, and thus the Mahal.

These Splendid abodes can be seen in the midst of streets that look serpent-like, peaceful and effervescent during social gathering and celebrations.



Fig.3.6_1 A paata placed outside the Haveli. Soni Singhi Ki Chowk.

Fig.3.6_1

3.6.2 Built form of Haveli

The house form of Havelis of Bikaner is influenced by two main aspects.

- The male dominated society which demands strict privacy.³⁵
- Courtyard as an element in a haveli, forms the core of the house around which other activities are located.³⁶

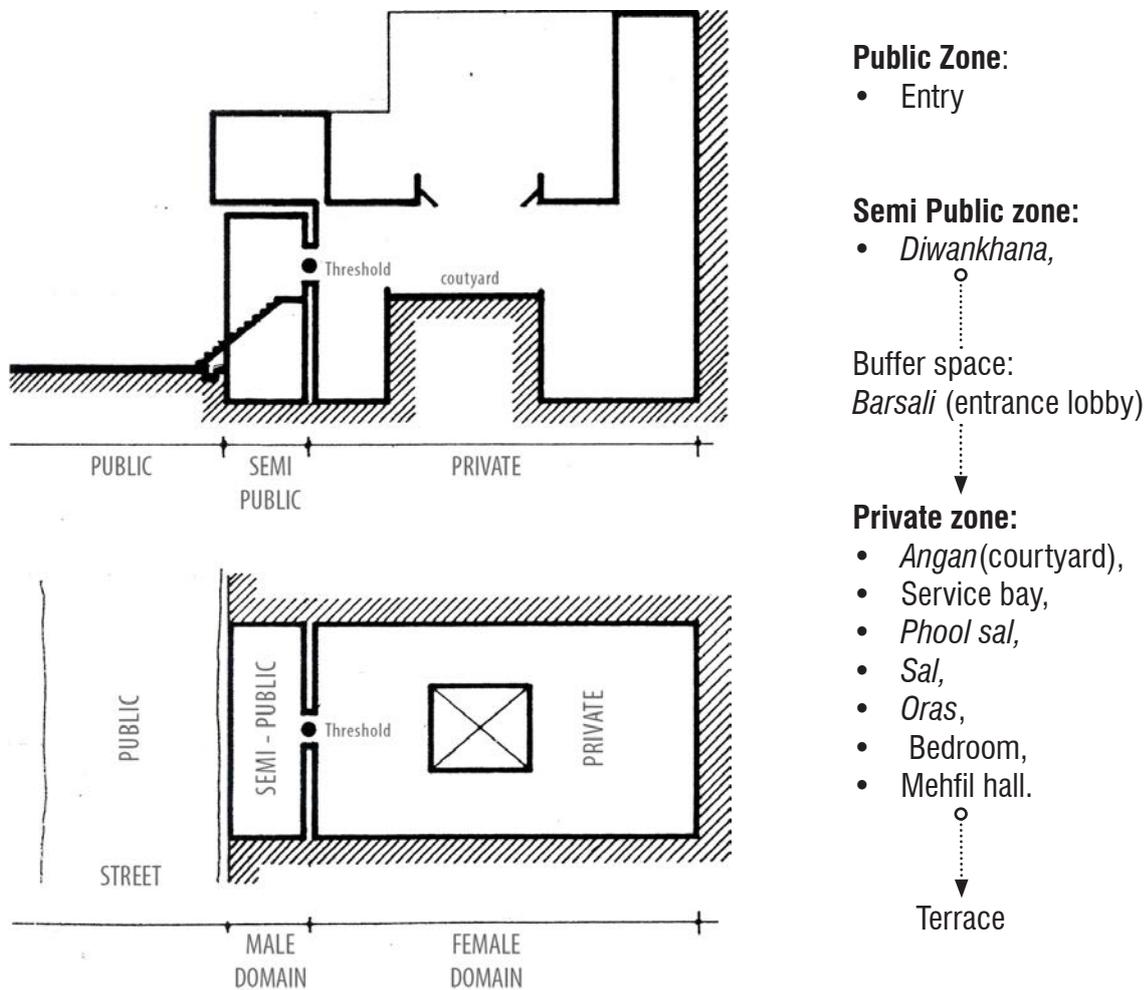


Fig.3.6_2

The house is divided into two levels of privacy: a semi-public zone, and a private zone. And threshold forms the transition between the two domains.³⁷

Fig.3.6_2 Schematic drawing of plan and section showing zoning of haveli of Bikaner.

PUBLIC ZONE

The public zone comprises of a staircase leading directly to the entrance of the house. The street is linked to the entrance by a flight of 8-10 steps that lead to the entrance landing of the house.³⁸

The house facade itself communicates the nature of public accessibility within. The openings facing the street become smaller and closed on the upper floor, while the lower ones are larger, and are kept open for the most part of the day, thereby expressing the more public nature of the spaces behind them.³⁹

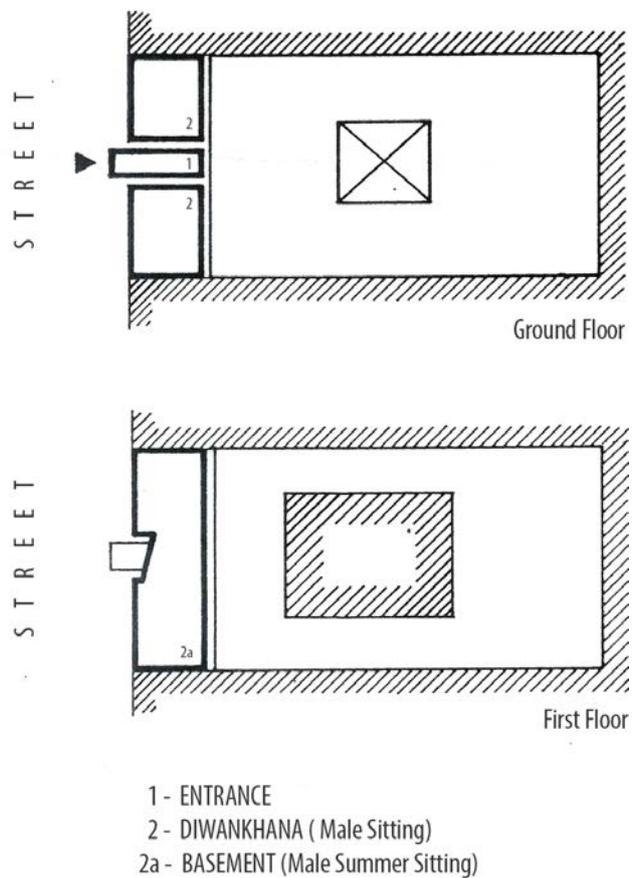


Fig.3.6_3

SEMI PUBLIC ZONE

Fig.3.6_3 Schematic drawings of ground floor Plan (top) and first floor plan (bottom) showing zoning of semi Public space of haveli of Bikaner.

The semi-Public zone of the dwelling comprises of two parts: The transition from street to the entry of the house via stairs, and the *Diwankhana* & basement below it.⁴⁰

- **Entry**

The entry to the house is welcome by a double-height arch, from where the flight of step begins leading to the entrance. The main door of the house is called “*Dhodi Muda*”, made of solid wood. The entry through the main door is marked by a threshold, an element of expression which signifies a transition into a private space.⁴¹

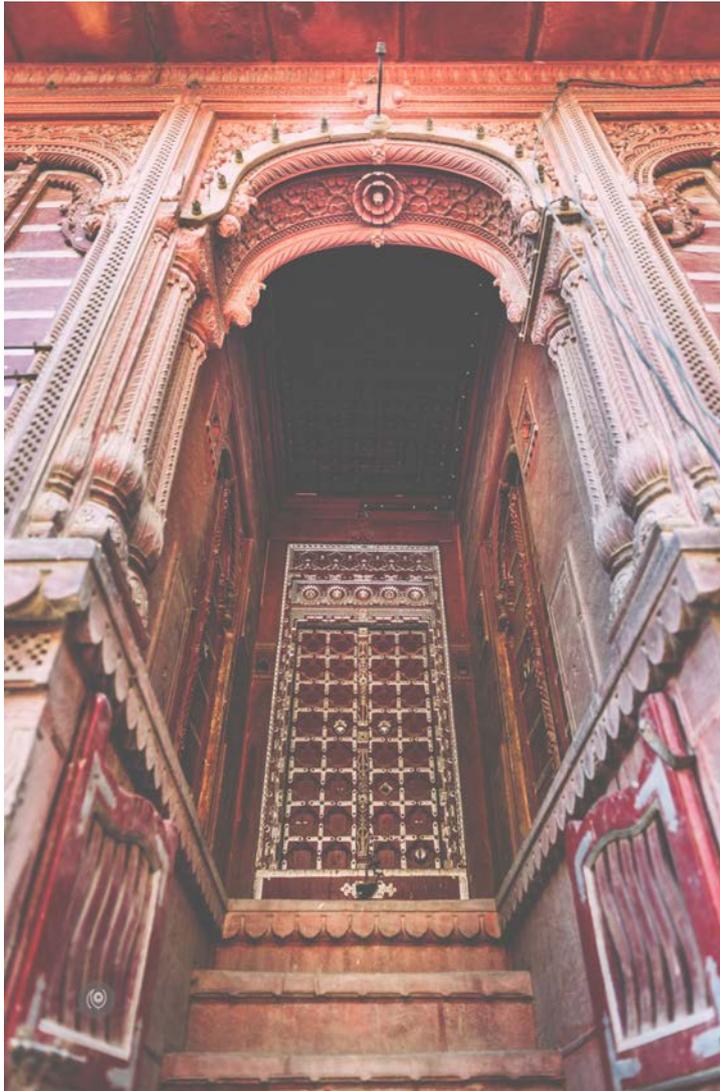


Fig.3.6_4

- **Diwankhana**

It is the room for a social meeting or for business. It is the place where guest and visitors are entertained. A house has two such rooms which can be accessed from the entrance landing itself and from the lobby (Barsali).

Fig.3.6_4 Entrance of haveli

The door of *Diwankhana*, do not have a threshold which fairly suggests the public nature of the place. It is connected to the main house by a single door; the door is positioned so that it faces the blank wall, thereby obstructing any visual link or communication with rest of the house.⁴²

Though the *Diwankhana* are essentially a part of the house, they are more linked to outside world, suggesting the semi-public nature. They have large windows overlooking the streets, with a low sill. The seats are normally on a floor on a *Gaddi* below sill level, so that it serves as an armrest.⁴³

The *Diwankhanas* are well lit and ventilated due to a large opening to outside. The walls are finished with lime, mirror and ornate inlay work in bright colors, The *Diwankhana* strongly express an aura of an intensely mail domain.⁴⁴

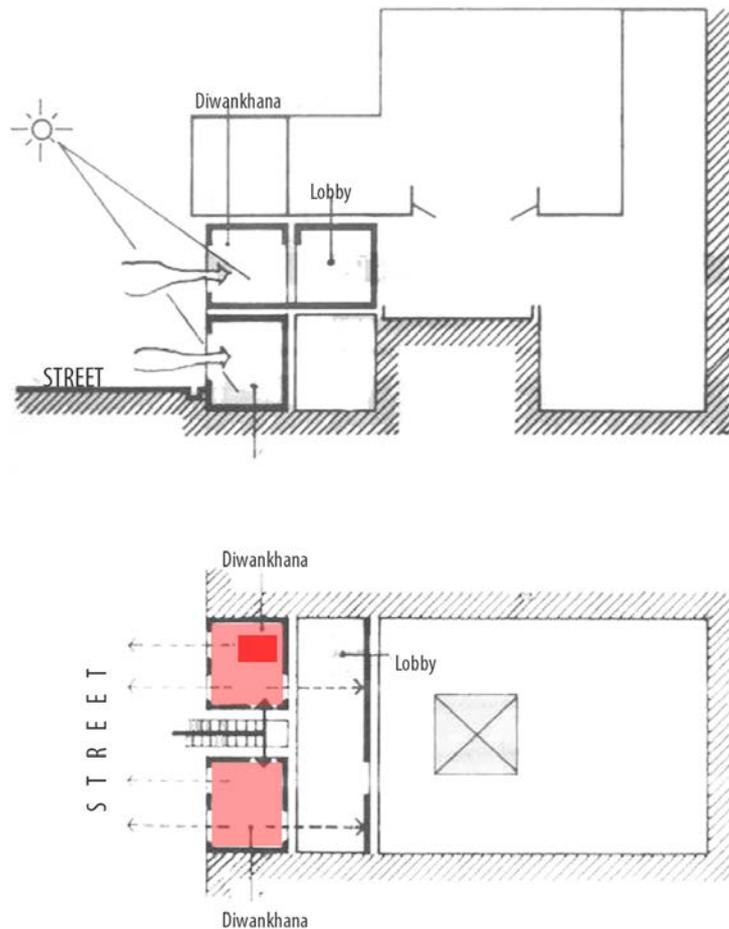


Fig.3.6_5 Schematic drawing of plan showing the zoning of diwankhana(bottom), and Schematic drawing of Section showing zoning and ventilation in diwankhana (top)

Red highlights the poistion of furniture found in that *Diwankhana* (highlighted in pink)

Fig.3.6_5

The *Diwankhanas* which is used as a place for business also entertains the floor sitting, where the owner seats in the room with his desk and Munim Ji (Accountant) seats in another room with a low desk to write the accounts.



Desk

Location : Diwankhana.

HiranchandJi Kothtari Ki Haveli, Dadho ka Chowk.

Geo tag : 28.00745, 73.305532

Description: If we see the house form of havelis of Bikaner, the house is essentially organized in two levels of Privacy: a semi-public zone and a private zone. The semi-public zone comprises two parts, entry from the street into house and diwankhana. *Diwankhana* is generally used for social meeting or as a place of business. Such desk is found in *diwankhana* as it is used as a place of business, and it is used by one who owns the business, usually owner of the house. The similar desk is also used by Munim Ji (Accountant), who seats in the room (*Diwankhana*) with the owner.

The desk is made up of Sheesham wood. This desk compacts into a *Peti* (Box) which makes it easy to move and carry within in a space. There are many different compartments to keep coins; stamps, letters, and paper. There are few hidden compartments also below the writing desk, used to keep valuables and money. Brass is inlaid on the top and sides of the desk, which can be seen when the desk is compacted into a *peti* (Box).



BUFFER ZONE

- **Barsali**

Barsali is the entrance lobby to the main house, running across its width. The lobby forms a buffer between public and private area, defining it as the semi-private area in the house. The opening from the *barsali* to *angan* or courtyard is kept on the extreme corner so that wall obstructs the view of the courtyard behind it, forming a visual barrier for a person entering the house.⁴⁵

Since *barsali* serves as transition place from a public to private space, it has a very simple interior. A stone bench or a wooden bench called *Paata* is placed in *barsali*.⁴⁶

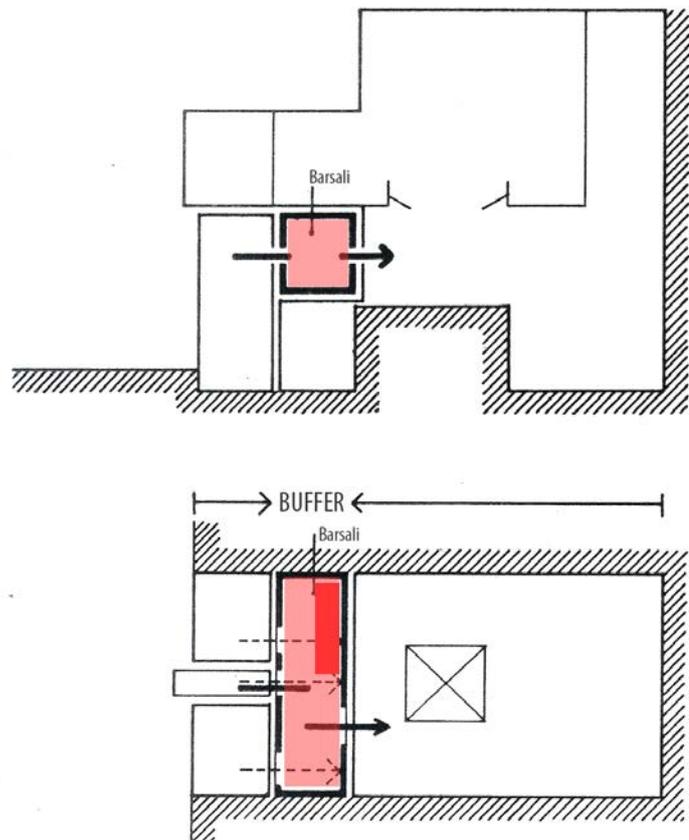


Fig.3.6_6

Fig.3.6_6 Schematic drawing of section (top) and plan (bottom) showing the *Barsali* and position of *Paata* (highlighted in dark red) in *Barsali*.

Red highlights the position of furniture found in that *Barsali* (highlighted in pink)

PRIVATE ZONE

The main house forms the private zone. Within this, again, there are varying levels of Privacy. The private area the courtyard, the sleeping quarters, and the verandas, and most private areas are the stores, where family possessions

Name: *Paata*

Location : Lalchand Ji Kothtari Ki Haveli
Dadho ka Chowk.

Geo tag : 28.007779, 73.305702

Description: This *Paata* is a rectangular wooden seating, it is 5 X 1.5ft and feet in height. It is made of Sheesham wood and wrought iron rod is used to support the seating and wrought iron nails of roughly 5mm thick is used to join different wooden members and on corners of *Paata* a metal plate is fixed, joining the wooden member along the width to the wooden member along the length ,it is called Khuniyu and it also hides the corner joint.

It is found in a barsali. *Barsali* is an entrance lobby to the main house running across its width. It is entered through the main door and also from *di-wankhanas*.

Elder people of House seat there while waiting for a commute to arrive.



are kept. The level difference between the *Angan* and other areas highlights the change in use or activity.⁴⁷

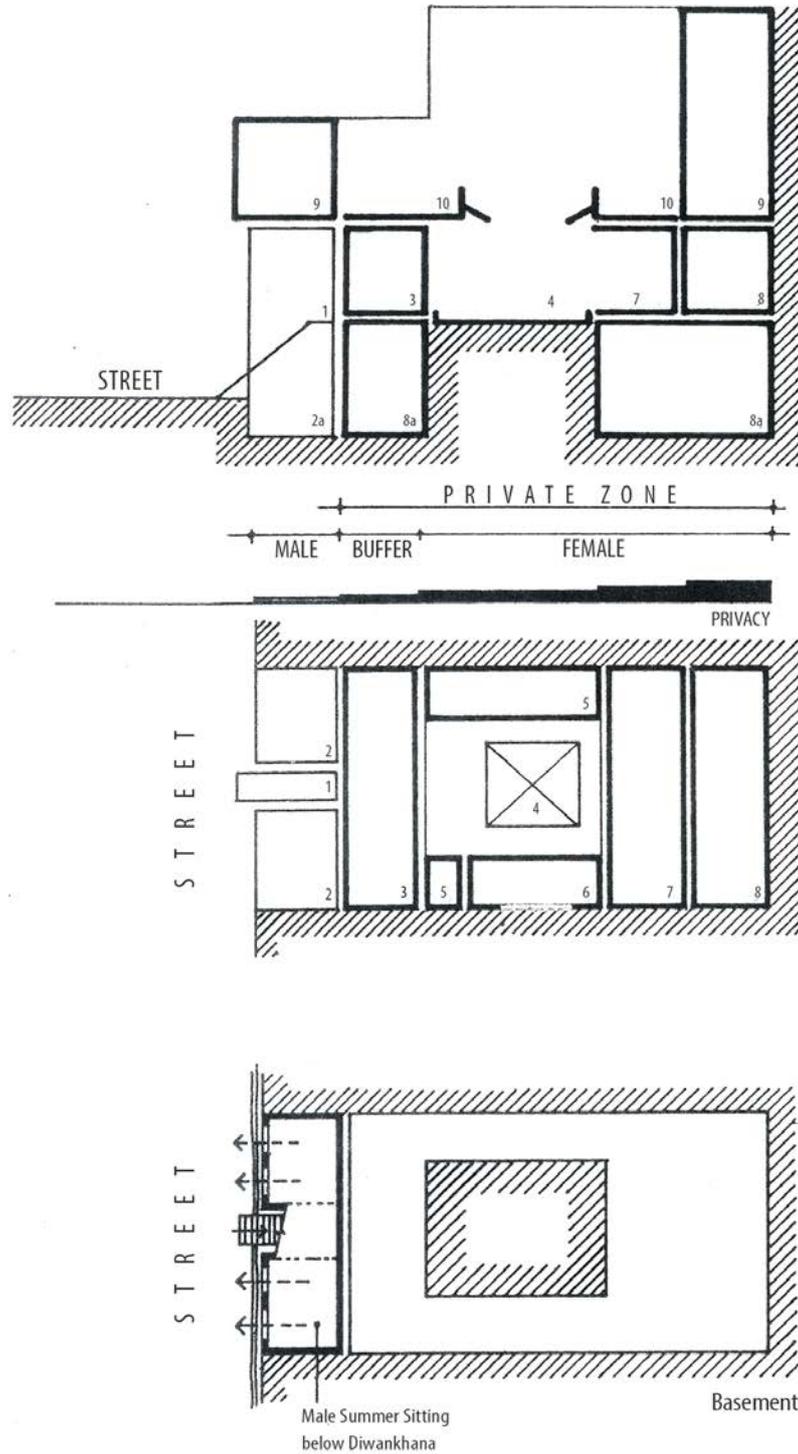


Fig.3.6_7 Schematic drawing of plan (middle) & section (top) showing zoning of private area of the haveli of Bikaner and Schematic plan of haveli(bottom) showing the basement area

- | | |
|---------------------------|---------------------------------|
| 3 - BARSALI (LOBBY) | 8a - BASEMENT (GENERAL STORAGE) |
| 4 - ANGAN (COURTYARD) | 8 - ORAS |
| 5 - SERVICE CORE | 9 - BEDROOM |
| 6 - PHOOL SAL | 10 - TERRACE |
| 7 - SAL (LIVING VERANDAH) | |

Fig.3.6_7

- **Angan**

The Angan or courtyard is the core of the house around which many household activities are centered. A level drop from barsali to angan defines a transition from semi-private to private zone. The angan is open to the sky; the chhajjas on the periphery keep the angan in shade for most of the day. The angan is flexible space in terms of use, as it receptacle the overflow of activities from the adjoining spaces like the kitchen, and the living verandas.⁴⁸

The woman spends most of their time in angan and in spaces around it, engaged in house chores. The angan is also used for large family gatherings on any religious occasion or social ceremony.⁴⁹

In the haveli, all the social gathering and the activities are done seated on the ground that is either on dhurrie or Gad-dis in angan. So no raised seating element to seat is found in the houses, the only raised furniture found in the havelis is paata in, which is used in angan during a social gathering.

The angan thus is the heart of the dwelling, the 'breathing core of the house', being the most sacred and private Component in the house.⁵⁰

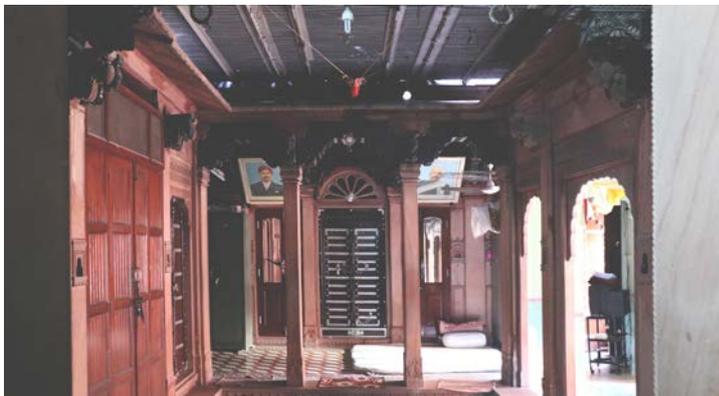


Fig.3.6_8

- **Service bay**

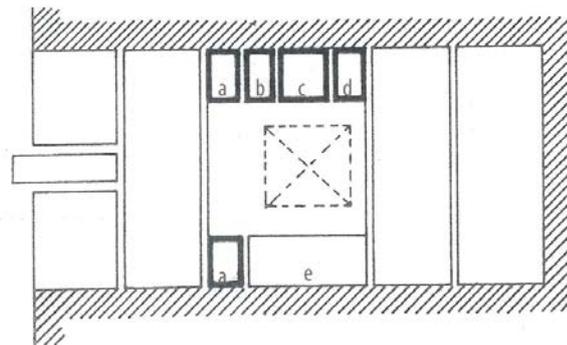
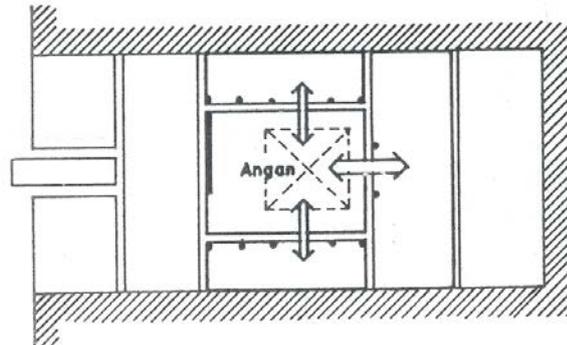
The service core is located on the left side of angan. It comprises of many activities, Kitchen, a staircase leading to the first floor, a water storage place and puja room.⁵¹ (Fig.3.6_9)

While the right side of the angan comprises of the water place and *Phool Sal*. *Phool Sal* is a veranda opposite to the

Fig.3.6_8 Photograph showing the Angan (courtyard) of Poonumchandji Anundmull Kothari ki haveli. Kothari moholla, walled city, Bikaner.

service bay, across the angan. It is mainly used by women to sit.

The first bay of the service block is usually occupied by water place. Since the water is the scarce commodity in this region, it is regarded as most sacred and is allowed the foremost place amongst the service. The water is stored in *Matkas*.⁵²



- a - water palce
- b - staircase
- c - Kitchen
- d - Puja place
- e - Phool Sal

Fig.3.6_9

The service bay is divided into four sections; the third bay is always the kitchen. The Kitchen is quite small, but since it opens out onto a courtyard, its activities extend into the angan.

Fig.3.6_9 Schematic drawing of plan (top) showing the relation of Angan to surrounding area, Schematic drawing of plan (bottom) showing the zoning of service bay adjoining to the angan.

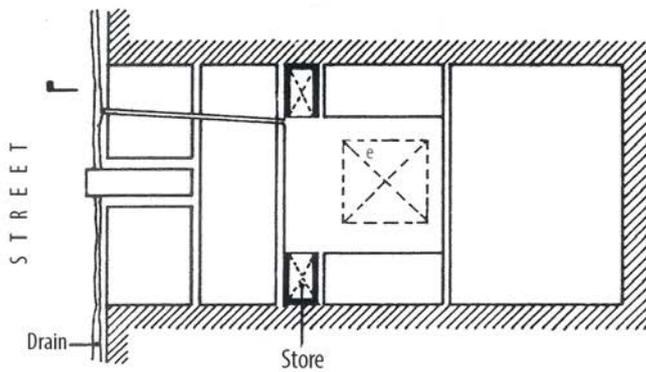
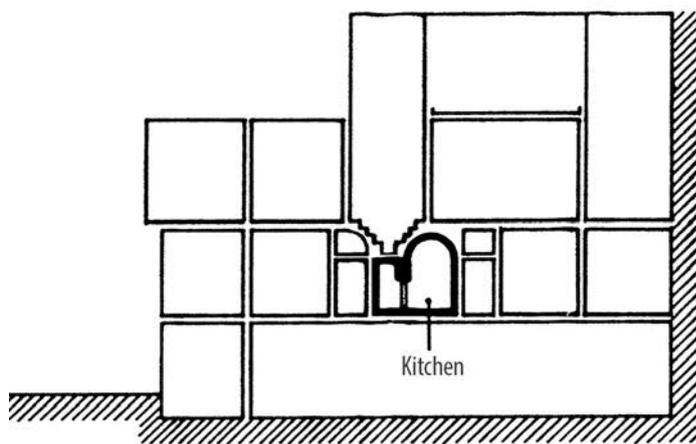
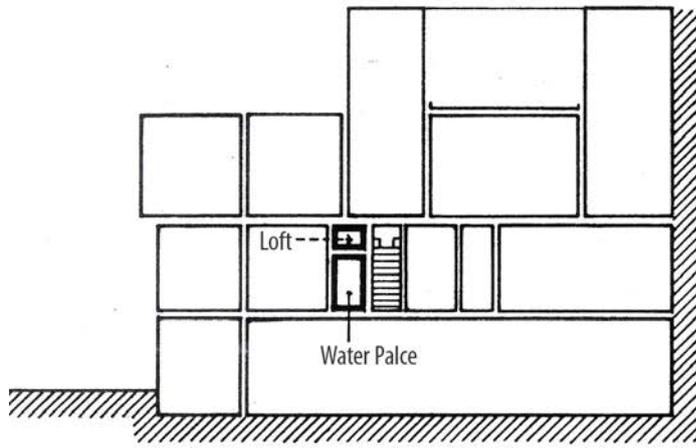


Fig.3.6_10

Fig.3.6_10 Schematic drawing of plan (bottom) and section (top) shows the store and water place in service bay and schematic section (middle) shows the kitchen.

The Puja room

It is the last room in the service bay, towards the private zone of the house. It is a small room used for worship, lit by light through the courtyard. The shrine is placed inside this room and the idol is placed inside a decorated niche or on Paata. During the festivals and religious occasion, the activity extends to the courtyard.⁵³

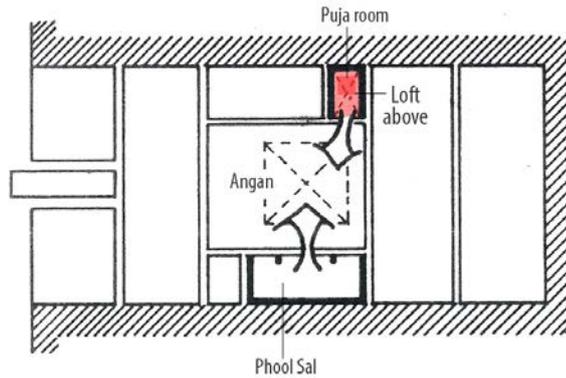


Fig.3.6_11

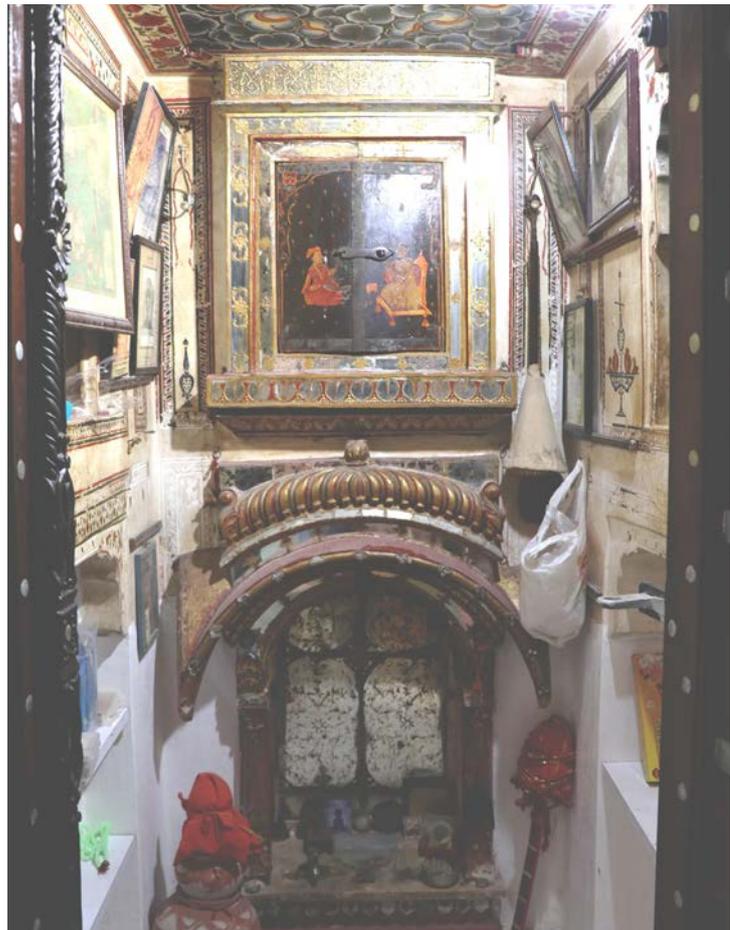


Fig.3.6_11 Schematic drawing of plan showing the puja room.

Fig.3.6_12 Photograph of ornate Puja room.

Fig.3.6_12



Fig.3.6_13

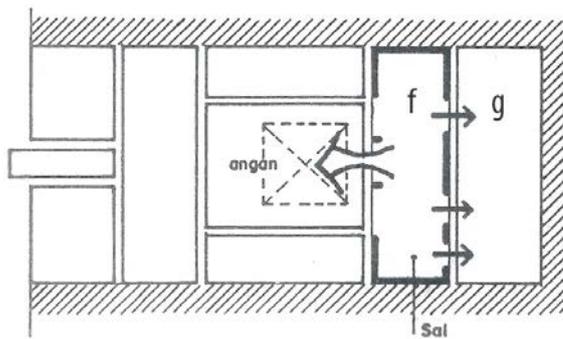
- **Phool Sal**

It is the verandah opposite to the service bay, mainly used by women folks as a sitting area.⁵⁴

- **Sal**

A *sal* is a verandah that is formed at the far end of the *angan*, it open towards the courtyard. In the *sal* usually, a *Paata* is kept for womenfolk to sit and rest. The *sal* is used as living space by household since it falls in the most private zone of the house. It serves as the spatial transition (semi-open) from *angan*(open), and the *oras* (covered).⁵⁵

The rear wall of the *sal* has three doors which lead to the *ora's* (stores).⁵⁶



f - Sal
g - ora's

Fig.3.6_14

Fig.3.6_13 Paata used during religious ceremony.

Fig.3.6_14 Schematic drawing of plan showing the zoning of sal and its relation to anjan in front and Ora in rear.

- **Oras**

The storage focuses an important aspect in the functioning of the house. Absence of heavy furniture within the rooms

gives rise to need for well-defined storage areas, keeping the floor free for movement. The 'Oras' serves this purpose, as they are the main storage spaces in the haveli. Usually, *oras* are series of three rooms. The doors are low, and the threshold is high, thus defining the *oras* as very private areas.⁵⁷

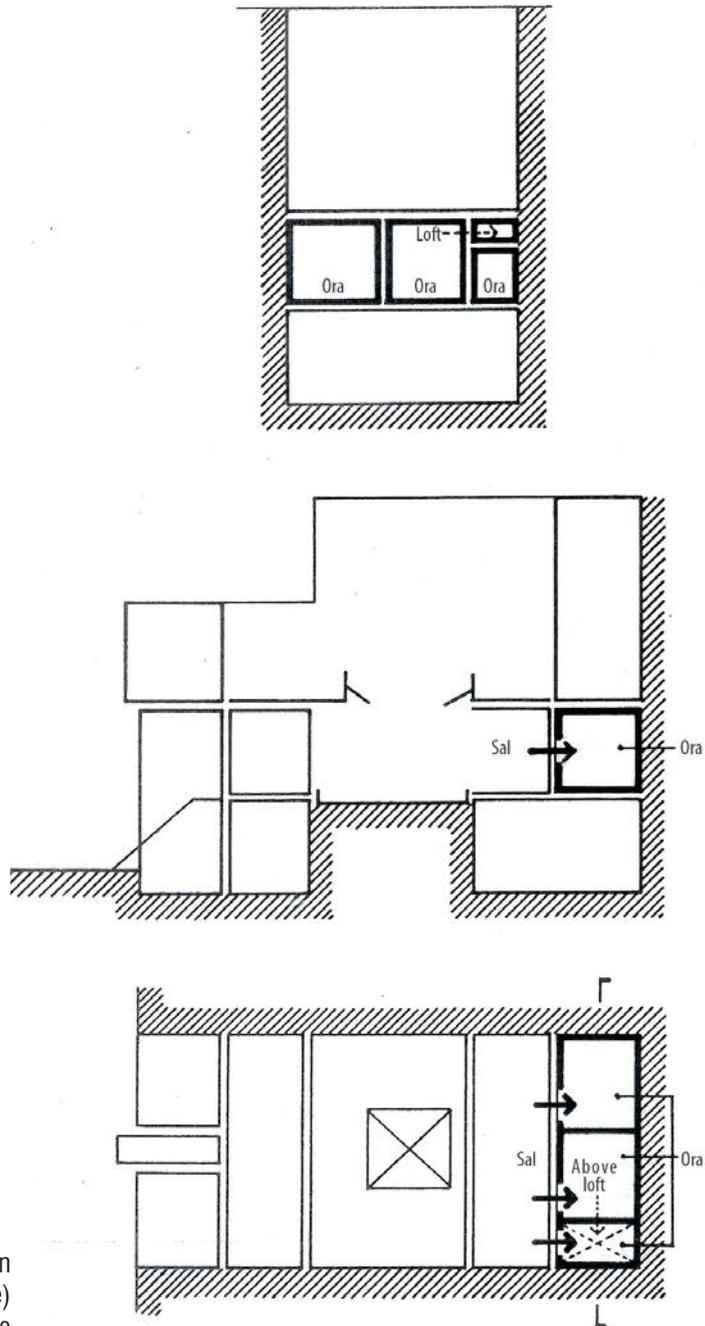


Fig.3.6_15 Schematic drawing of plan (bottom), longitudinal section (middle) and transverse section (top) show the zoning of ora's (store room) in the rear part of the haveli of Bikaner.

Fig.3.6_15

The rear wall of the *oras* is extremely thick, thus serving four prime purposes: first, of bearing the load, since this portion of the house rises up to the second floor, second being security safety, since most houses are built back-to-back.



Fig.3.6_16

Third, with the thick wall, niches and shelves in the wall holds the needs to be stored, as there is no specific storage furniture within house *oras* are often used for storing the grains, fourth, being the thick wall with minimal openings, creates a cool, dark, atmosphere within and thus, the *oras* are also used by the women-folk during summer, for their noon siestas.

Bedroom

Leading from the flight of stairs in the service bay reaches to the first floor. It is the most private zone of the house, as there is bedroom on this floor, more appropriately is called retiring rooms. The rear room overlooks the terrace and again and front room overlooking the street. The room overlooking the street has a small opening that is framed ornately carved windows. These are called 'Jharokhas', the archetypal elements that express the essence of Rajasthani Culture. These windows allow woman folks to look down into the street without being seen, thus acting as the link between the outside, and the woman's cloistered world.⁵⁸

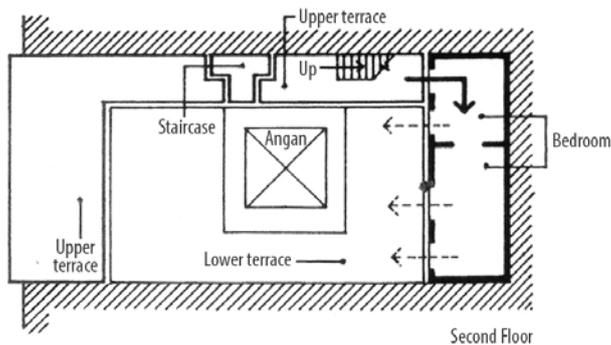


Fig.3.7_17

Fig.3.6_16 Photograph showing the an-gan of Poonumchandji Anundmull Kothari ji ki haveli

Fig.3.6_17 Schematic drawing of second floor plan showing the bedrooms.

The room in front is usually far more ornate in their interior. It is called Mahal, a place for private social gathering and *Mehfils* (Parties). It is also known as *Mehfil* hall. The wall of the Mehfil hall is finished with *Gesso* style painting with colorful floral motifs, with mirror and inlay work throwing the reflected light from the window in the room, creating an enchanting quality of light, and a picturesque environment within. The room adjoining the mehfil hall is also decorated with *Gesso* style painting on the wall and *Monavat* Style Painting.

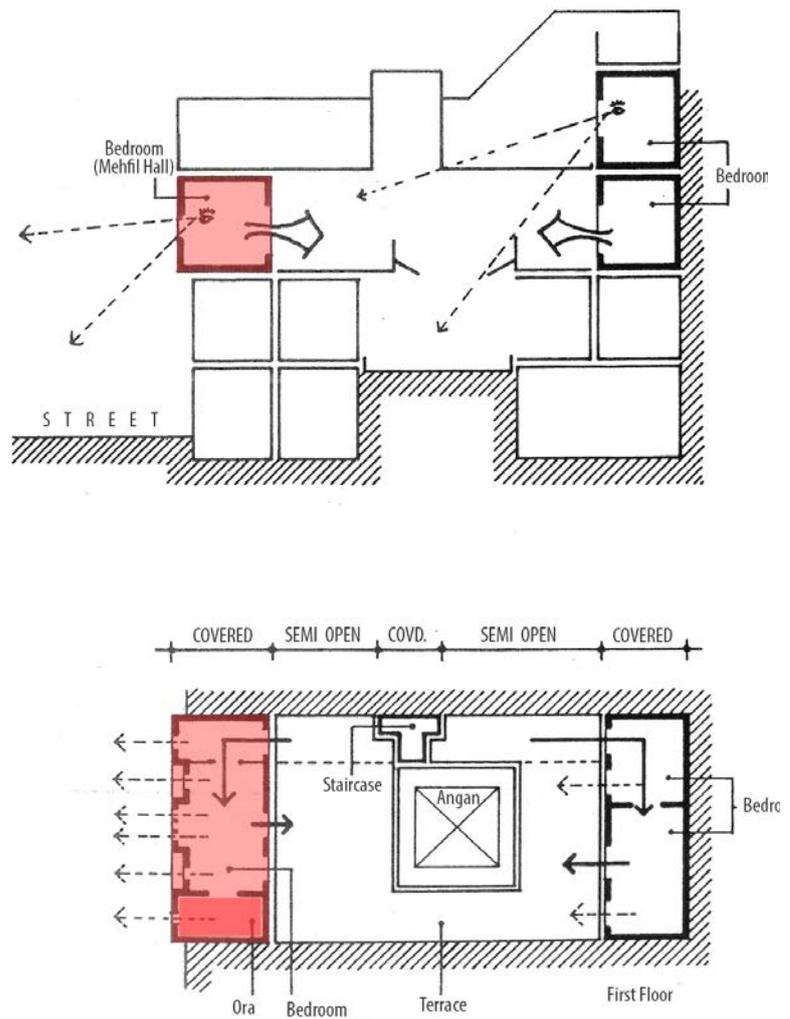


Fig.3.6_18

Fig.3.6_18 Schematic drawing of plan (bottom) and section (top) showing the zoning of bedrooms on first floor, and highlights (in red) the most ornate room (Mahal/Mehfil room) inside out of the haveli.



Fig.3.6_19

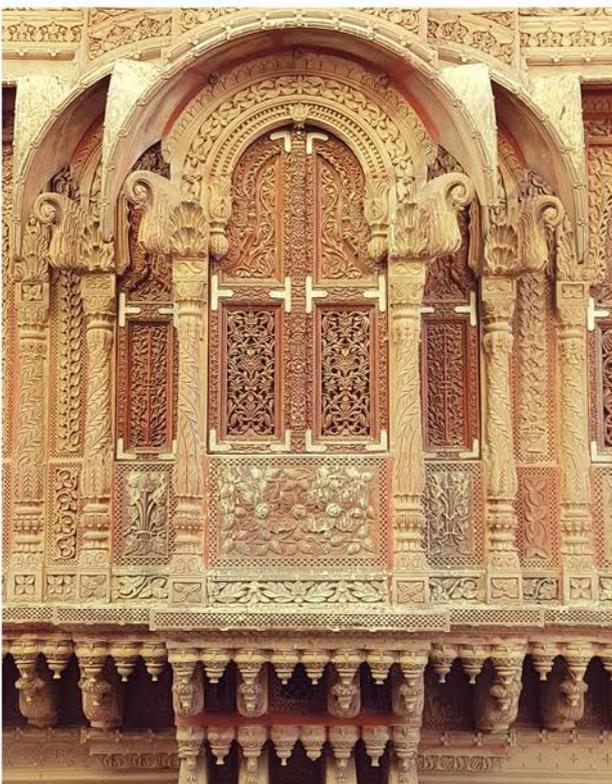


Fig.3.6_20

Fig.3.6_19 Photograph showing the jharokha in highly ornate Mahal (Mehfil hall) of Poonumchandji Anundmull Kothari ji ki haveli.

Fig.3.6_20 Photograph of jharokha from outside showing the intricate carving in stone of Poonumchandji Anundmull Kothari ji ki haveli.

Name: Aada

Location: SampatJi ki Haveli, Banthia Chowk, Mawa Patti

Geo Tag: 28.010929, 73.302005

Description: It is a small Cabinet, inbuilt in a wall, to Keep the valuables. The wooden doors of *Aada* are decorated with motifs and Painting of God and Goddess. It is found in a small room used as changing room adjacent to the *Mehfil* Hall, the room is decorated with paintings of floral motifs on walls. This artwork is called *Usta kaam* and style of painting is called Gesso Painting. The technique was used to ornament the walls of the haveli with golden floral motifs and natural vegetable colors.

The Gesso style painting includes the floral motifs paintings with natural vegetable color. Mainly red and green are the ground colors. The entire surface is then coated with traditionally prepared varnished from linseed oil, called Chandras.

Another technique it includes is Emboss Painting called Monavat. In this technique mixture of Matti (clay) or brick is mixed with *Gond* (Gum) from tree or jaggery along with methi powder to form a paste. This paste is used to make different floral motif and patterns, which then are painted with ground colors, followed by real gold paint detailing on the embossed which highlights the embossed foreground and background with base color.



Terrace

First and second floor both have a terrace. The terrace is multi-functional in nature and it is used extensively during summer and winter. In summer, it is used for sleeping outdoors in cool at night and in winter during the warm afternoons. The terrace thus becomes another private, living area of the house.⁵⁹

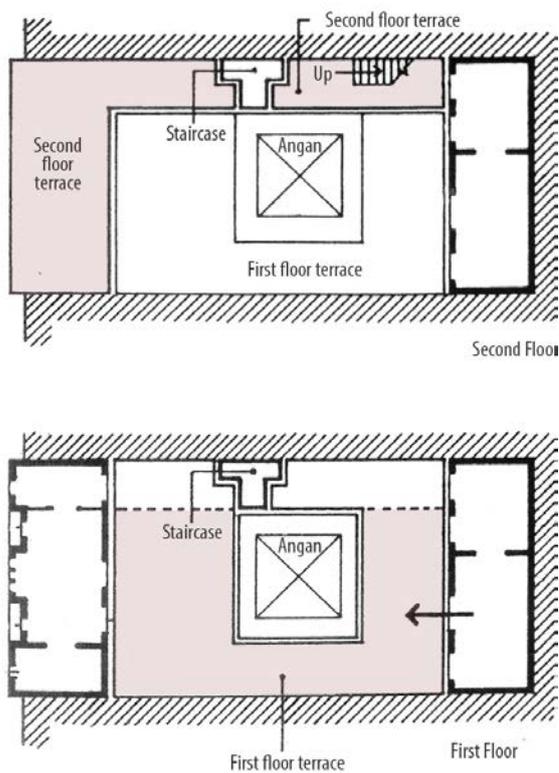
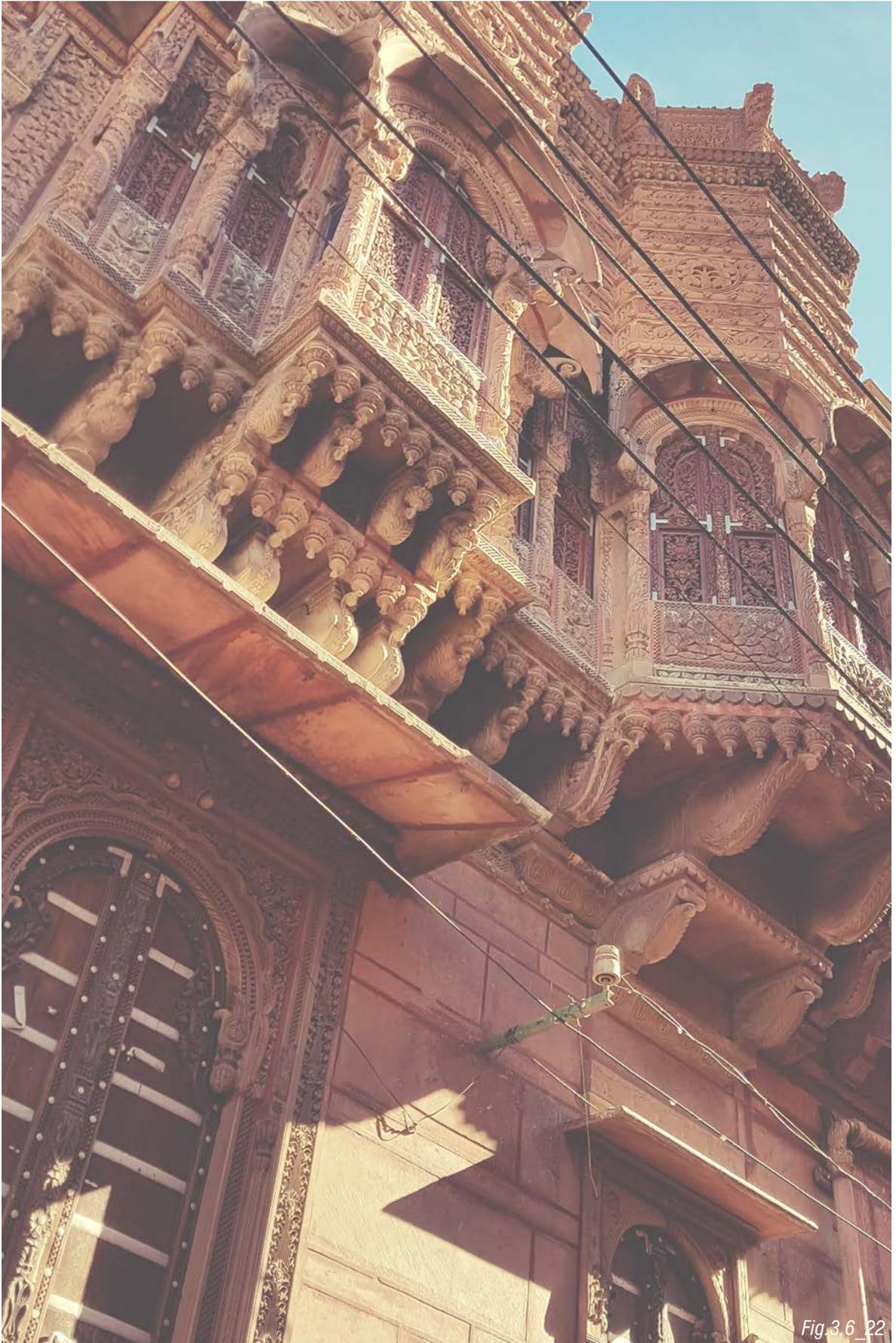


Fig.3.6_21

The facade view from the street creates an impression of the whole structure rising from a solid, impenetrable base to an airy, light and delicate summit, the intricate *jalis* tracing the pattern on the sky.⁶⁰ (Fig.3.6_21)

Fig.3.6_21 Schematic diagram of first floor plan(bottom) and second floor plan (top) showing first and second floor terrace.

Fig.3.6_22 Photography shows the facade of Poonumchandji Anundmull Kothari ji ki haveli.



Outside Haveli

In the street, just outside the Haveli and in the chowks - an open area surrounded by Havelis, a raised wooden seating is found called 'Paata'. It is meeting hubs of the residents of the Havelis. It is used in many social gathering and major cultural activities revolve around the Paata in the walled city.

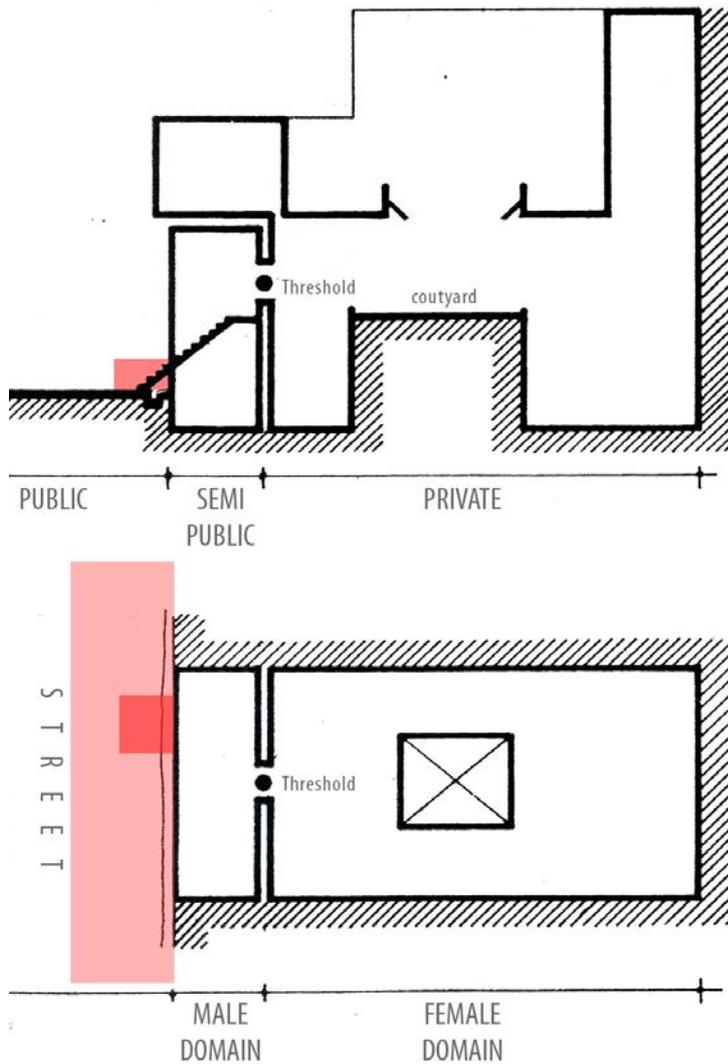


Fig.3.6_23

Fig.3.6_23 Schematic drawings of plan(bottom) and section (top), showing the placement of Paata outside the haveli

Fig.3.6_24 Photograph showing Paata placed outside the haveli in kothari mo-holla.



Fig.3.6_24

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Chapter 4

Paata : Construction



4.1 Construction of Paata



Fig.4.1_1

The construction and the making of Paata have been understood in conversation with a local carpenter at their respective workshop in the walled city.



Fig.4.1_2

Fig.4.1_1 Carpenter working at the workshop.

Fig.4.1_2 Photography of carpenter workshop, Kote gate, old city, Bikaner.

Fig.4.1_3 Photography of carpenter working at workshop, Kote gate, old city, Bikaner.



Fig.4.1_3

4.1.1 Material

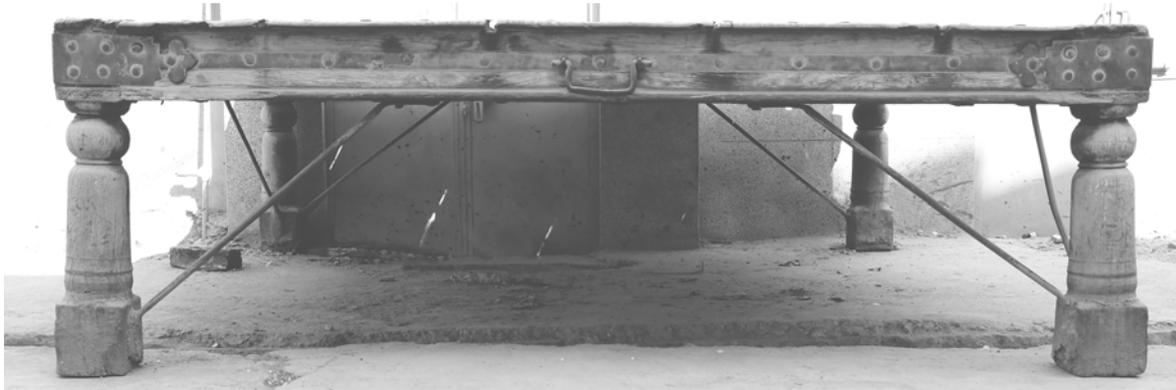


Fig.4.1_4

The Paata is customarily made out of ***Sheesham wood*** or ***Rohida wood***.

Rohida tree is found in *Thar* region of western Rajasthan. Thus Rohida came from the desert region of Bikaner, which produces quality timber. Rohida wood is strong, tough and durable.

Sheesham wood came from the northern part of Jangladesh, which is Sri Ganganagar district at present. It is situated near borders of Rajasthan and Punjab states and the international border of India and Pakistan. Sheesham wood is durable and is very resistant to fungi.



Fig.4.1_5



Fig.4.1_6

Along with wood, metal sheet and bars are used on corners, to provide additional bracing to paata. Forged metal nails are used to join wooden members and rivets to fix metal sheet on wood.

4.1.2 Construction

The construction of Paata is based on a movement resisting frame structure. There are either four, seven or nine legs as per the size of Paata, which are in compression and are connected via four or eight flexural members which transfer and distribute the horizontal forces and transfer the load to the legs.

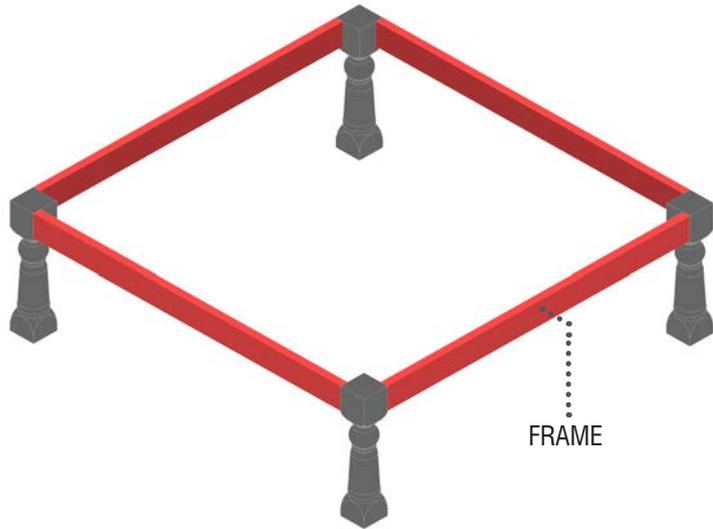


Fig.4.1._7

Another tie member is fixed at the bottom of the frame, which binds and encompasses the frame and legs together in a uniform structure, and acts against any side thrust or shear force.

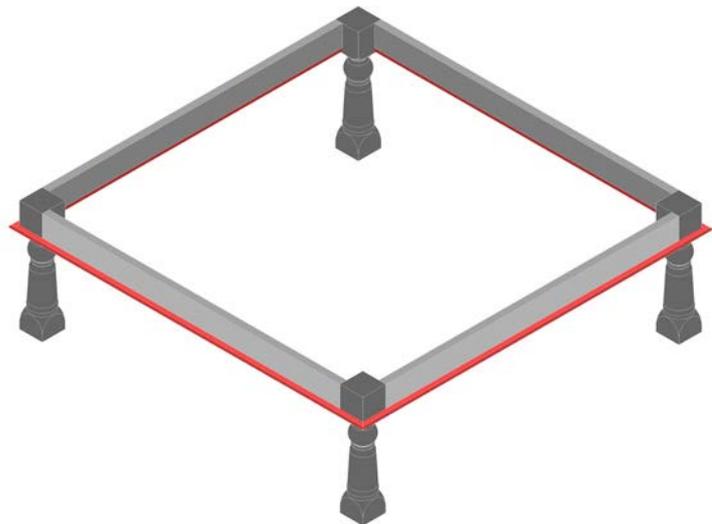


Fig.4.1._8

Fig.4.1_4 photograph of Paata from front, Sirohiya ka Moholla, walled city, Bikaner.

Fig.4.1_5 Photograph of Paata, Rangri chowk.

Fig.4.1_6 Corner photograph of Paata.

Fig.4.1_7 Illustration showing the construction of primary frame of Paata .

Fig.4.1_8 Illustration showing the construction of secondary frame at bottom of primary frame.

Above illustration shows and explains the structure of Paata in making.



Fig.4.1_9



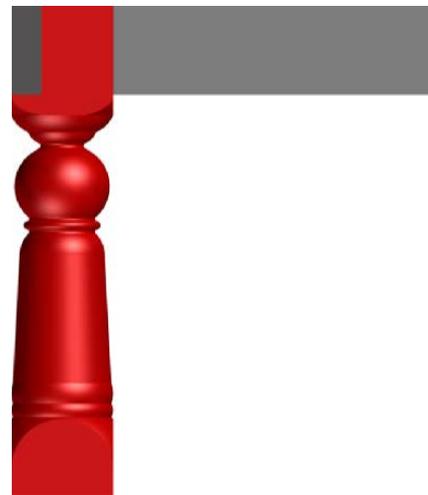
Fig.4.1_10



Fig.4.1_11

Paata is found in an urban fabric for a communal gathering, which entertain the seating of 10 to 20 people at a time, as per the size of *Paata*. Indeed the legs of *Paata* are thick and hefty which can withstand the heavy load.

The legs are called '**PAAGA**' locally. The legs of *Paata* are turned in particular proportion and design with a wide base. The wide footing of the leg also helps in stabilizing the *Paata* while it is being used. It changes the load transfer to the ground from a point load to a surface load. The top and bottom of the legs are not turned.



Paaga

Fig.4.1_12



Fig.4.1_13

The diameter of leg vary from 5 to 6 inches as per the size of *Paata*. The turning of wood is called '**KHERAD**'.

The frame and the leg are joint via tenon-mortise joint. The tenon and mortise joint creates the interlocking which

structurally resists deformation in non-axial direction.

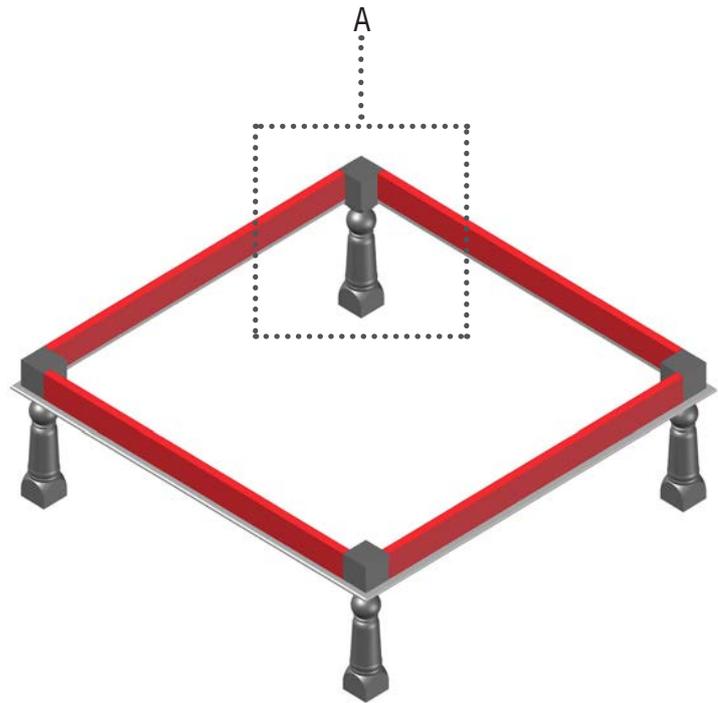


Fig.4.1_14

Locally the Tenon-mortise joint is called '**SAAL-CHUR**' joint. It acts as a rigid joint for the stepping down of the tenon resists buckling in all four directions.

Fig.4.1_9 Photograph showing corner leg of Paata.
Dassaniyo ka Chowk, walled city, Bikaner.

Fig.4.1_10 Photograph showing center leg on the periphery of the Paata (Paata with 9 legs). Dassaniyo ka Chowk, walled city, Bikaner

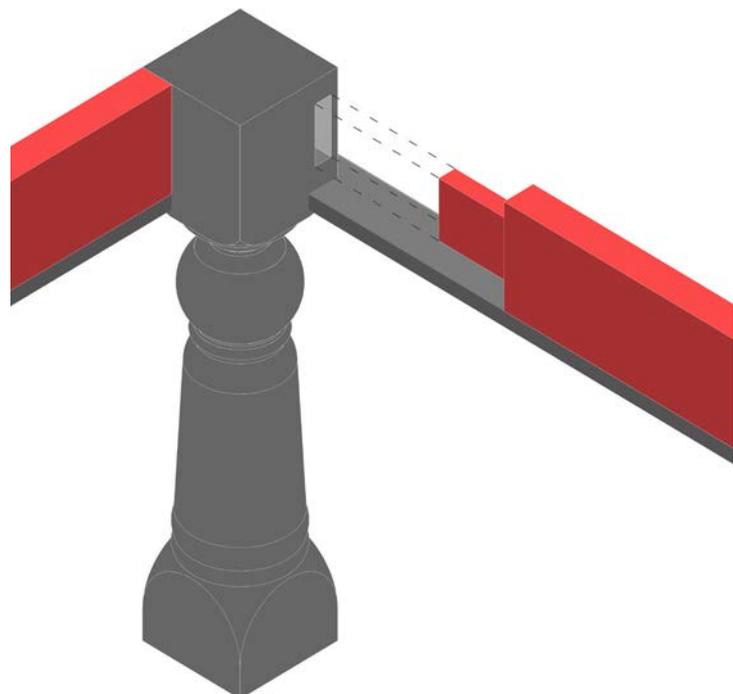
Fig.4.1_11 Photograph showing corner leg of Paata.
Daga Sethiya Parak Gawad, walled city, Bikaner.

Fig.4.1_12 Illustration showing the design of turned leg (Paaga) of Paata.
Kothari moholla, walled city, Bikaner.

Fig.4.1_13 Front elevation of paata.

Fig.4.1_14 Illustration showing the construction of frame and legs of Paata in 3D.

Fig.4.1_15 3D illustration showing the joinery of the frame of the Paata to the leg.



View A
Saal-chur (Tenon-Mortise joint)

Fig.4.1_15

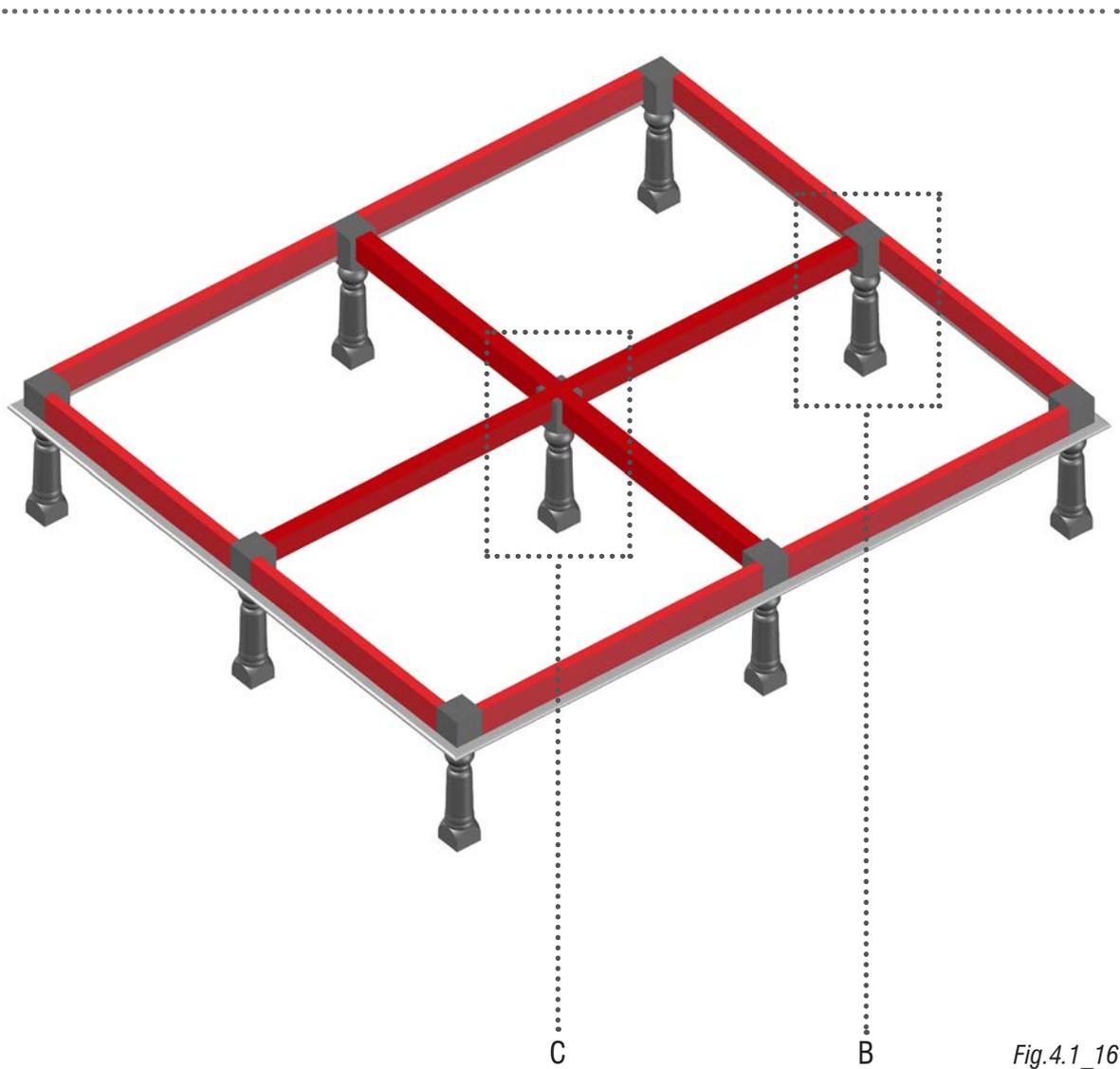
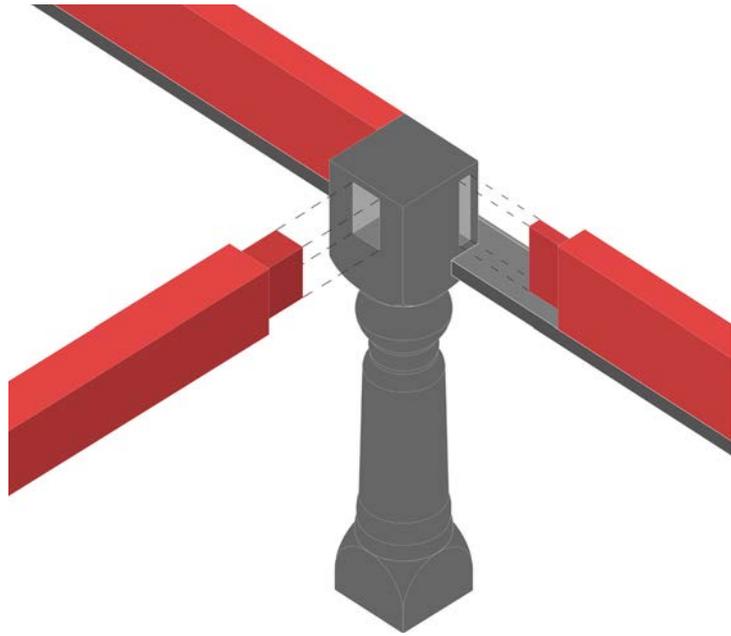


Fig.4.1_16

In the Paata with seven or nine-leg, a secondary tie member is added to resist against axial deformation. The tie member is supported on the center leg and joined to the leg on the center of sides.



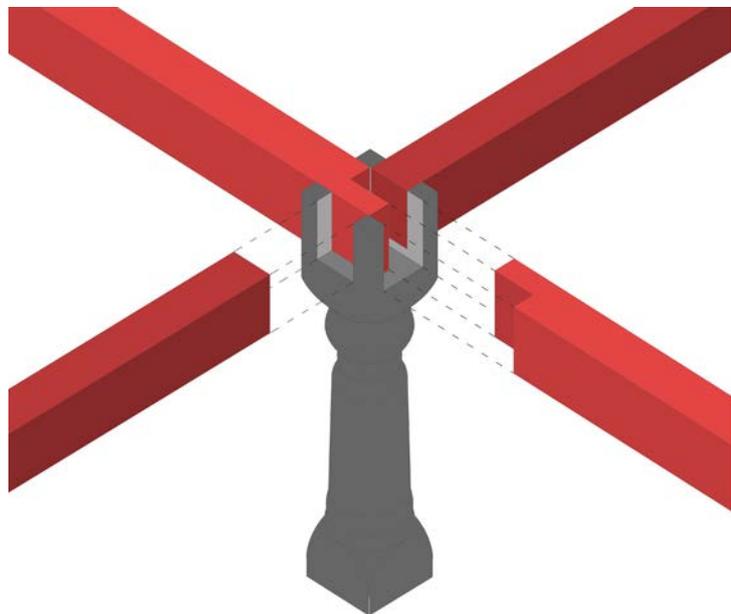
Fig.4.1_17



View B
Saal-chur (Tenon-Mortise joint)

Fig.4.1_18

At the center, the wooden tie member is joined by half-lap joint locally called '**PAO**' (view C)(fig.4.1_19) supported on the center leg.



View C
Pao joint (Half lap joint)

Fig.4.1_19

Fig.4.1_16 3D Illustration showing the construction of primary frames to the legs of the Paata with 9 legs.

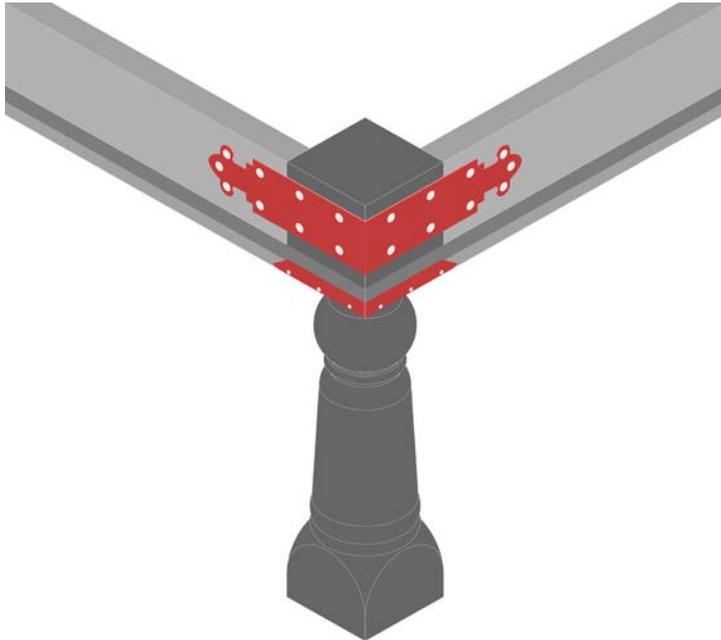
Fig.4.1_17 Photograph showing the junction of the frame and the center leg of the paata (with 9 legs) from bottom.

Fig.4.1_18 3D illustration showing the joinery of the frame to the center leg on the periphery of the paata.

Fig.4.1_19 3D illustration showing the joinery of the frame to the center leg of the paata.

A member made out of metal sheet is fixed on the corners of the leg, which provides the additional strength to the Ten-on-mortise joint of a frame to the leg and keep them in a fix position to resist against any deformation.

These metal bracings on the corners are called '**KHUNIYU**', locally in the walled city.



Khuniyu

Fig.4.1_20

The meaning of the word *khuniyu* is a corner. *Khuniyu* is made out of a metal sheet of thickness varying from 1 to 2mm, which is bent at 90 degrees and is fixed on the corner of Paata with metal rivets, which are called '**Ripat**' locally.



Fig.4.1_21

The ends of metal bracing are cut in form of motif. Thus Khuniyu, being a functional member, it also decorates and beautify the *Paata*.

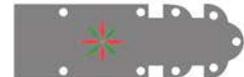
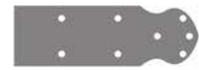


Fig.4.1_22



A metal bracing is also fixed on the center leg on the sides of Paata with 7 or 9 legs; it keeps the frame fixed to the leg. It is fixed with metal rivets.



Fig.4.1_20

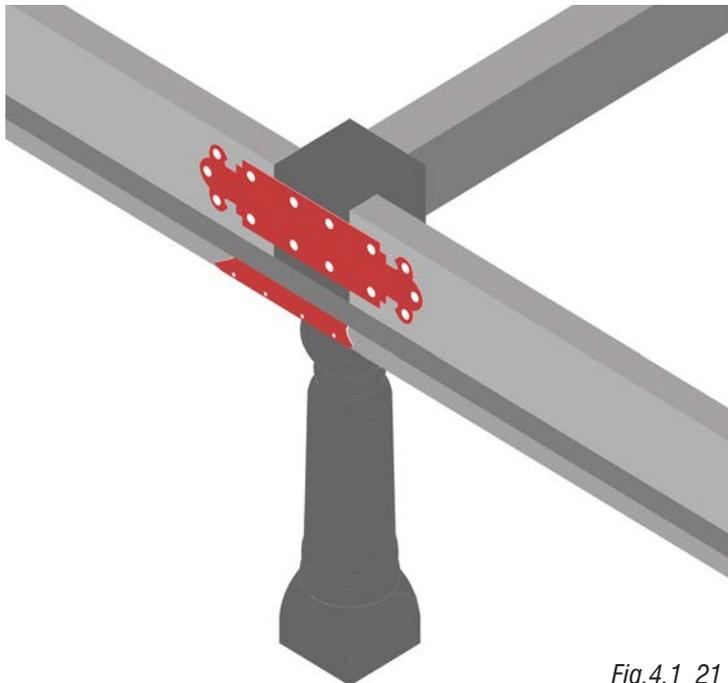


Fig.4.1_21

Fig.4.1_20 3D illustration showing the corner metal bracing to the frame and the leg of the Paata

Fig.4.1_21 Photograph showing the metal bracing (khuniyu) on the Paata. Dassaniyo ka Chowk, walled city, Bikaner.

Fig.4.1_22 Illustration showing the different style of metal bracing (Khuniyu).



Fig.4.1_22

Fig.4.1_23 Photograph showing the metal bracing on the center leg on the periphery of the Paata. Dassaniyo ka Chowk, walled city, Bikaner.

Fig.4.1_24 3D illustration showing the metal bracing strengthening the joinery of frame and the center leg on the periphery of the Paata.

Fig.4.1_25 Photograph showing the metal bracing on the center leg on the periphery of the Paata.

Another metal member is fixed on the corner of the *Paata*, connecting the frame to the leg. It is called '**TAAN**' locally.

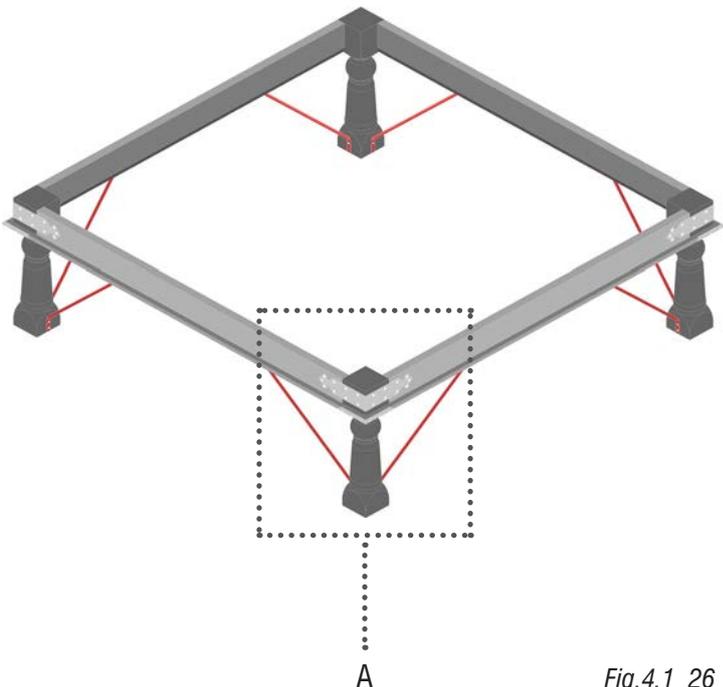


Fig.4.1_26

Taan is made out of metal rod or a metal bar of a thickness varying from 15 to 20 mm. *Taan* is forged on both the ends and made flat and nailed to the frame and the leg diagonally.

Fig.4.1_26 3D Illustration showing the *Taan* fixed to the frame and the leg on all the corner of the *Paata*.

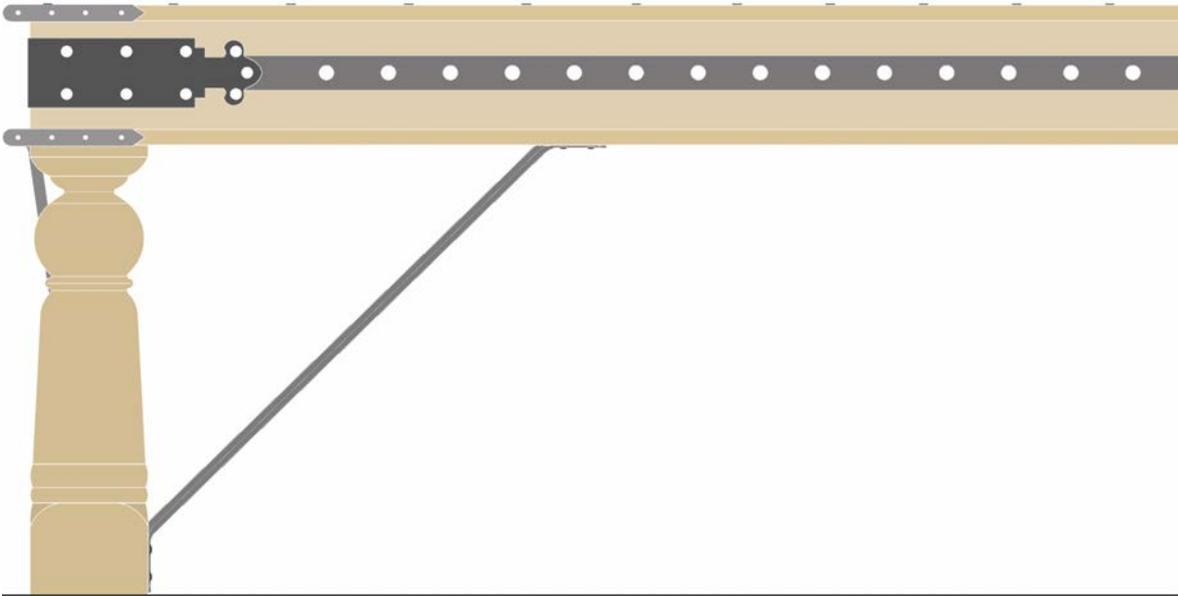
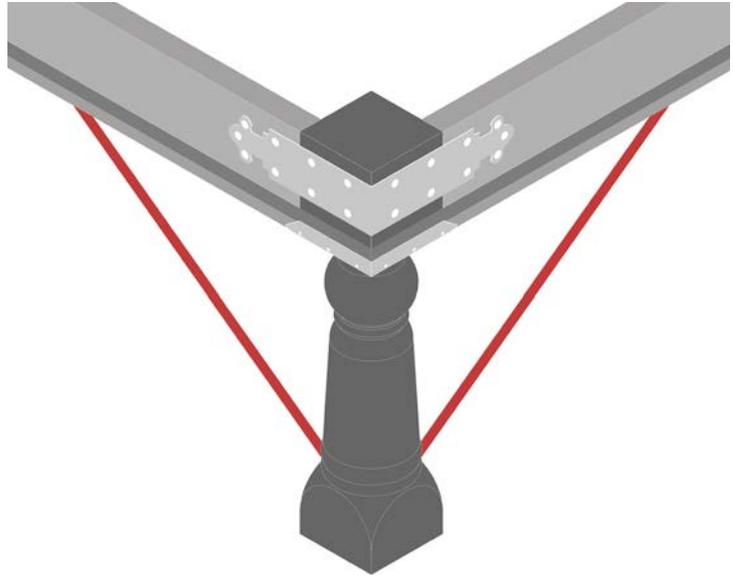


Fig.4.1_27

Fig.4.1_27 2D Illustration showing the elevation of the *Paata*.



View A
Taan

Fig.4.1_28

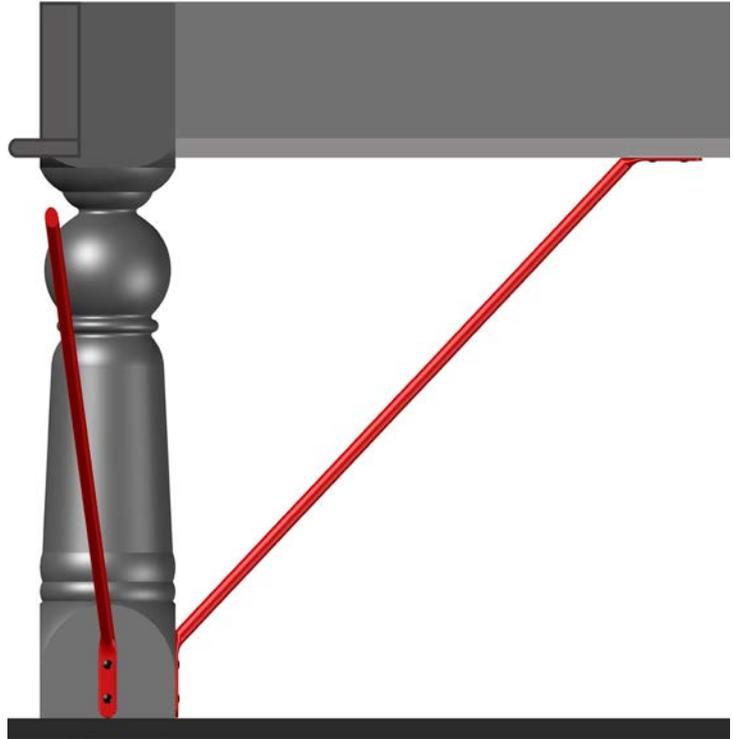


Fig.4.1_29

Fig.4.1_28 3D illustration showing the corner of the Paata highlighting the Taan.

Fig.4.1_29 Illustration showing the section of Paata highlighting the Taan in red.

It acts as a bracket, providing the strength against the plane bending force on the frame due to continuous dead load and undistributed live load on *Paata*.



Fig.4.1_30

Taan also assists to transfer and distribute the horizontal forces on the frame and transfer the load to the legs.

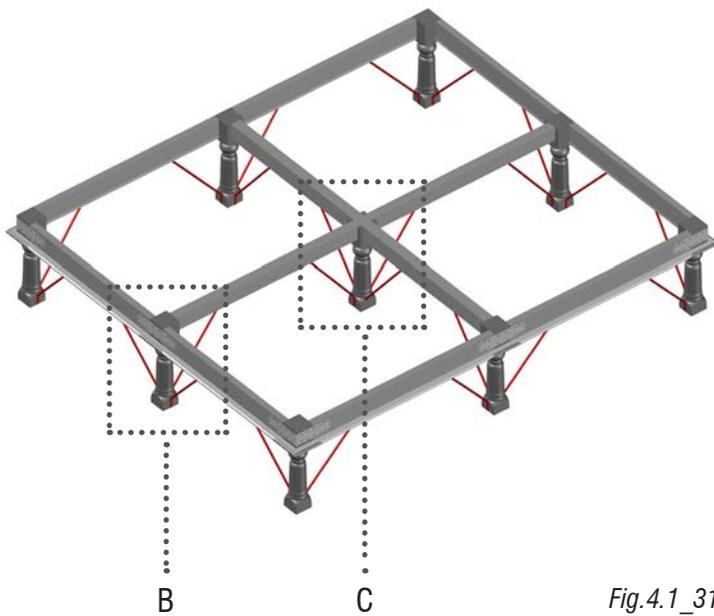
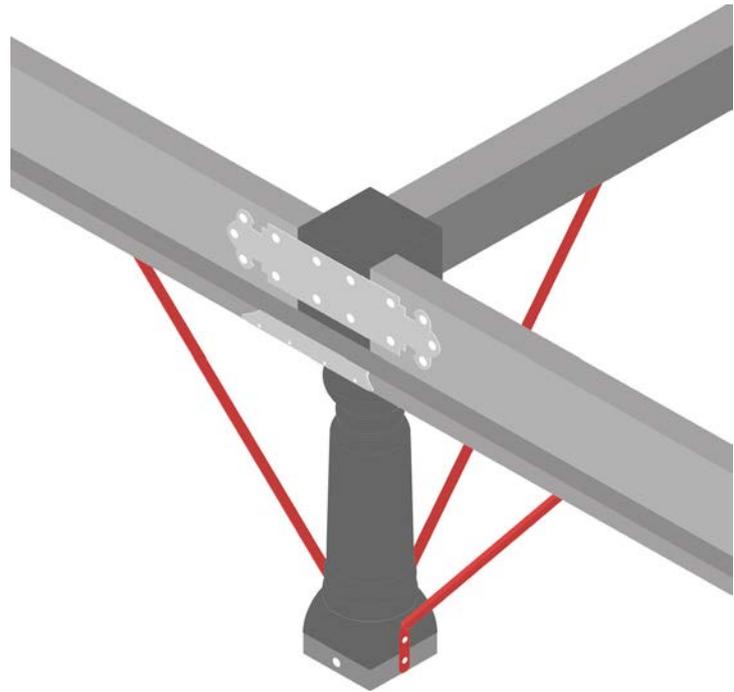


Fig.4.1_31

View B and View C show the position of *Taan* supporting the frame of *Paata* with 9 legs.

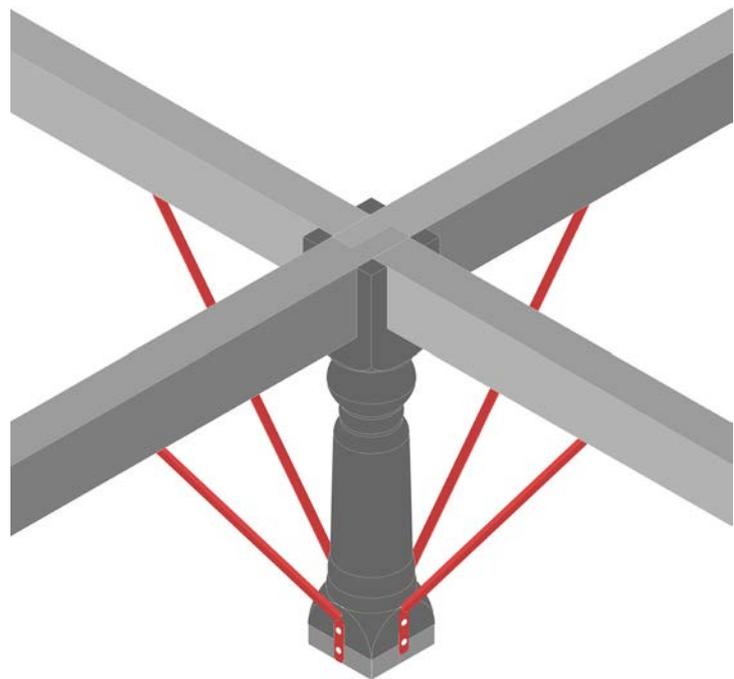


Fig.4.1_32



View B

Fig.4.1_33



View C

Fig.4.1_34

Fig.4.1_30 Photograph showing the junction of frame, leg and Taan at the center leg of the Paata (Paata with 9 legs).

Fig.4.1_31 Illustration showing the construction of the Taan to the frame and legs of the Paata in 3D.

Fig.4.1_32 Photograph showing the Taan, Rangri chowk, walled city, Blkaner.

Fig.4.1_33 3D illustration showing the construction of Taan to the frame and the center leg on the periphery of the Paata.

Fig.4.1_34 3D illustration showing the construction of Taan to the frame and the center leg of the Paata.

Taan prevents the application of shear and torsional force to the frame system, preventing the damage due bending.

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The seating surface is crafted by fixing the wooden planks of different width on the frame of the Paata. It is fixed by nailing the forged metal nails called '**KHIL**' locally.

The wood planks are of either Rohida or Sheesham wood. The thickness of plank used for Paata varies from 20 to 25mm as per the size of the tree trunk and the way it is sawn.



Fig.4.1_35

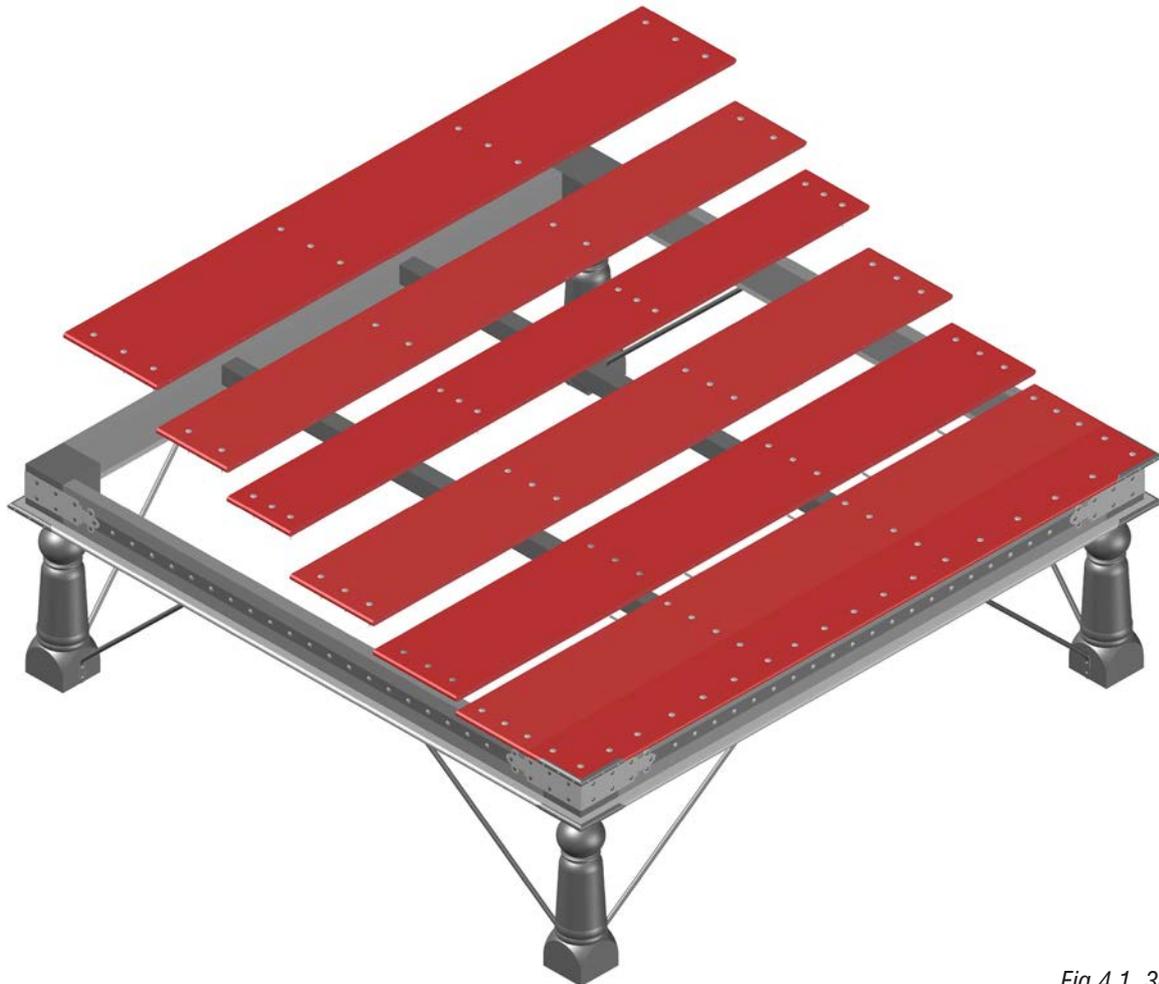


Fig.4.1_36

The wooden grains on the face of the planks of different Paata appear in a longitudinal direction along the length of the plank with tangential grain. Tangential grain is the annular rings with a very less angle to the face of the plank.

From this, it can be concluded that the wooden planks are plain sawn from the tree trunk. This supplies the wooden plank with different width.



Fig.4.1_37



Fig.4.1_38



Plain sawn

Fig.4.1_39

The length of the Plank is constant as per the size of the Paata, while the width of the Plank vary from 200 to 400mm as per the size of the tree trunk and the way it is sawn.

After the planks are fixed, the edges of the planks are chamfered and a metal bracing is fixed on the corner, providing protection against wear and tear of the wood on the corner.

Fig.4.1_35 Photograph showing wooden plank fixed using nail.

Fig.4.1_36 3D illustration showing construction of planks on the frame of the Paata.

Fig.4.1_37 Photograph showing the wooden grains of wooden plank of Paata.

Fig.4.1_38 Photograph showing the wooden grains of wooden plank of Paata.

Fig.4.1_39 Illustration showing the wooden grain of plain sawn planks from tree trunk.

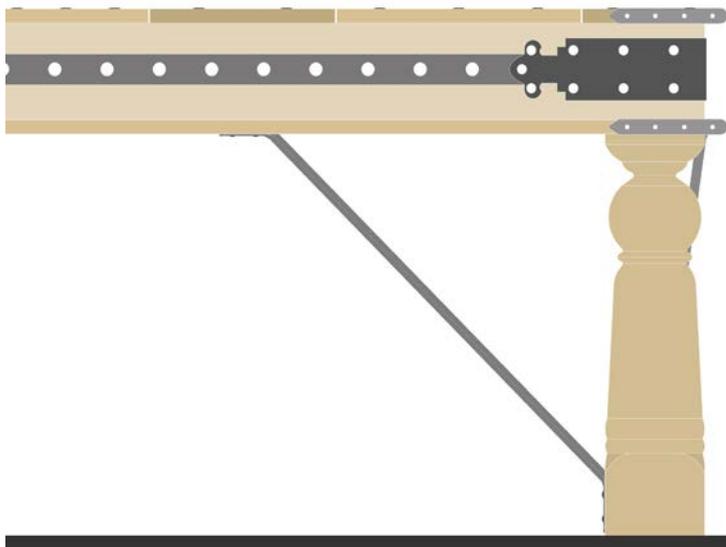


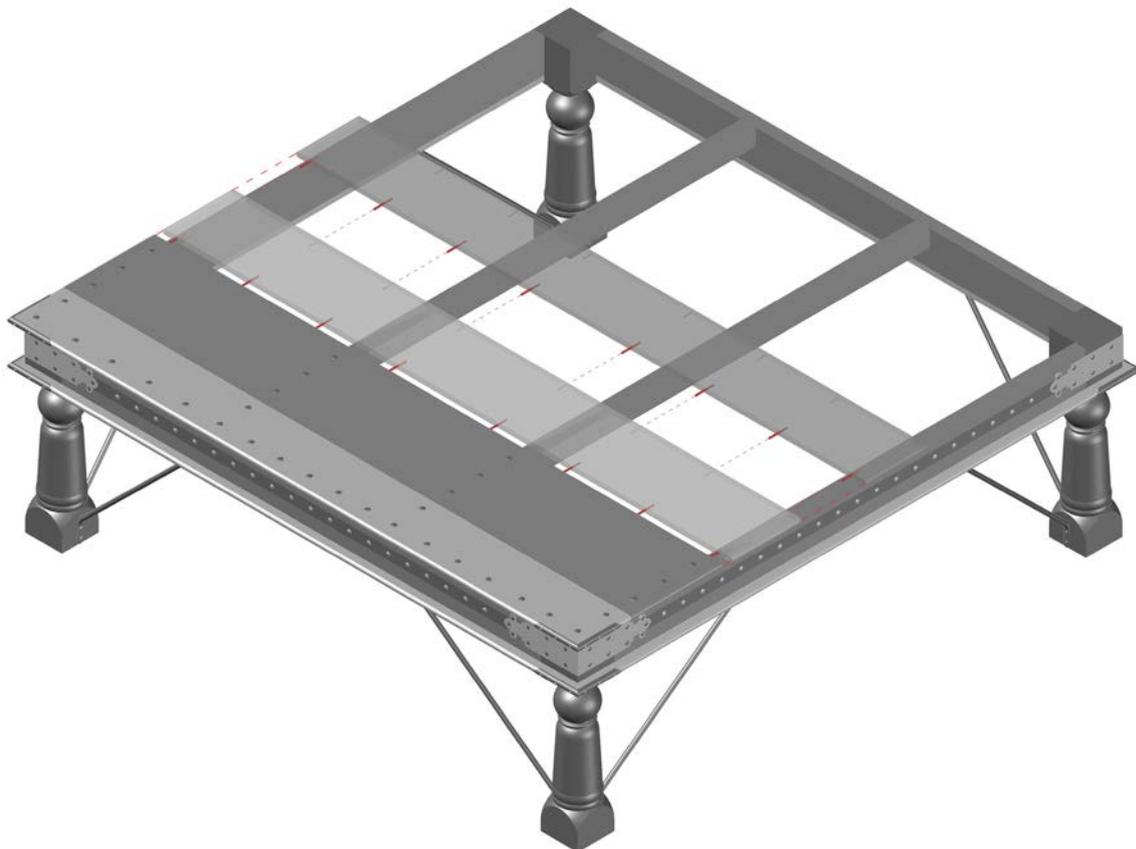
Fig.4.1_40

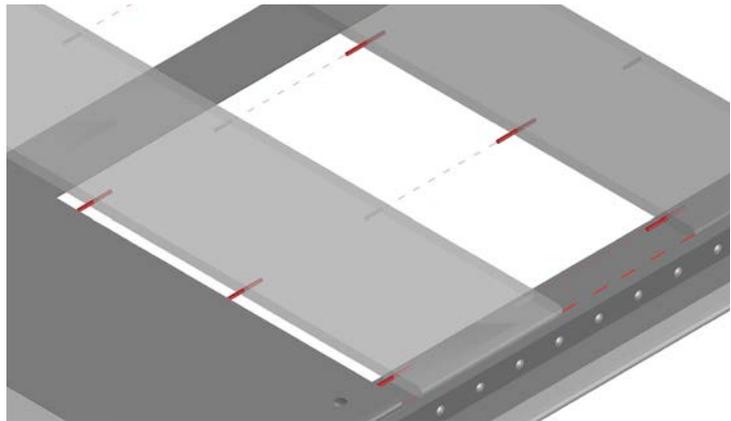
Fig.4.1_40 Side elevation of Paata.

The planks are joined to each other by a metal dowel on the sides of the plank along the length along with glue. The metal dowel is called '**GOONJAL**' colloquial by carpenter.



The thickness of dowel varies from 5 to 8mm as per the thickness of the plank. The metal dowel is inserted up to an inch or an inch and half on both the sides.





Dowel provides the reinforcement to the glued planks. Using the multiple dowels to join the planks, dowel joint becomes the strongest joint and can withstand a lot of pressure and horizontal force without breaking.

Doweling ensures a neat finish, delivering the even seating surface.

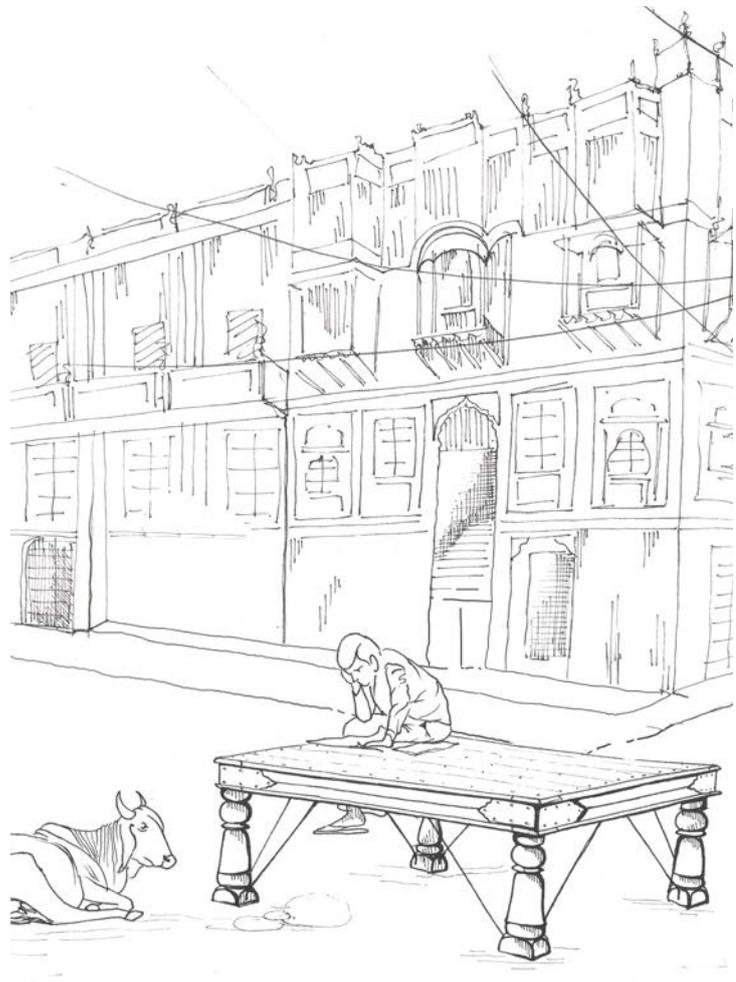


Fig.4.1_41 Photograph showing metal dowel (*Goonjal*) connection two planks. Sirohiya ka moholla, walled city, Bikaner.

Fig.4.1_42 3D illustration showing the construction of wooden planks to each other.

Fig.4.1_43 3D illustration showing in detail the joining of wooden plank using metal pin (*Goonjal*)

Fig.4.1_44 Sketch of Paata in Dadho ka chowk, walled city, Bikaner.

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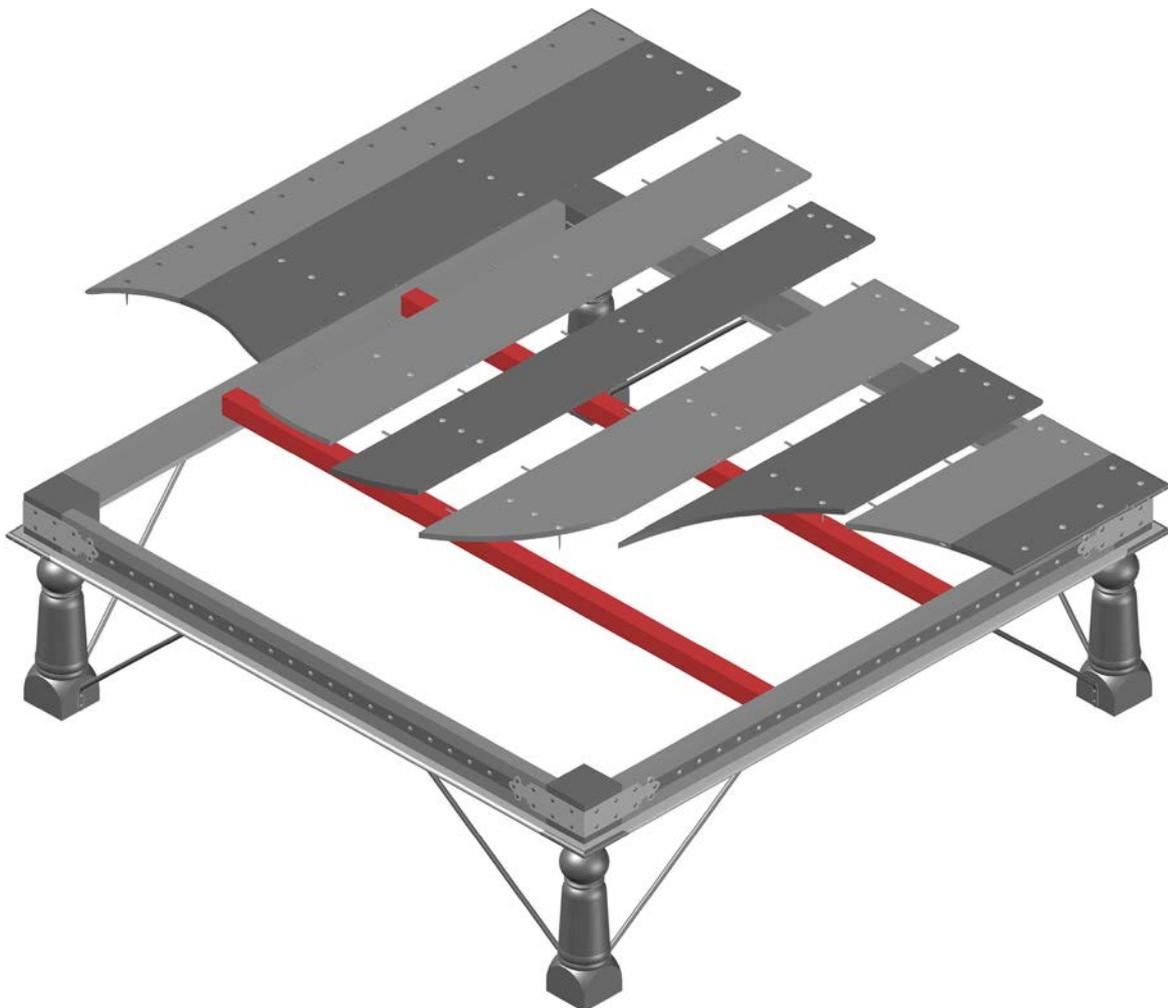
The planks of sitting surface with such a span of 7 to 10 feet and undistributed live load tend to undergo two forces, the horizontal bending moment and compression which tends to sag the plank.

An additional wooden member is fixed to the frame in the direction perpendicular to the planks, resisting the planks against the sag.

The size of the wooden member in height varies from 70-100mm, in width, it varies from 50-70mm and in length it varies as per the size of Paata.



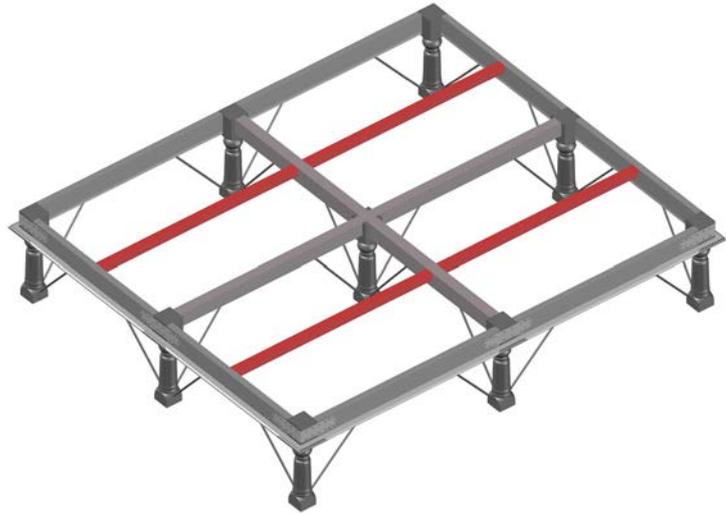
Fig.4.1_45



Primary support member

Fig.4.1_46

These wooden members are joined to frame by Tenon-mortise joint. And it is glued and nailed to the wooden planks.



Secondary support member

Fig.4.1_47

The Paata is made up of wood, which tends to expand and contract due to weather and with time few deformities are seen on the seating surface and legs of Paata. Such deformities are prevented by adding metal bracing as required in Paata.

The plain sawn plank used as a seating surface with time tends to cup in the opposite direction of the annular rings. Due to which a seating surface becomes uneven.

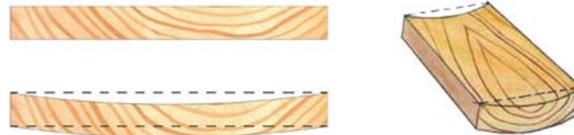


Fig.4.1_48

Fig.4.1_45 Photograph of Paata from below showing the wooden member fixed to frame supporting the Paata against external force and wooden plank against sagging. Kothari moholla, walled city, Bikaner.

Fig.4.1_46 3D illustration showing the wooden members (in red) fixed to frame supporting the Paata against external force and wooden plank against sagging.

Fig.4.1_47 3D illustration showing the secondary support wooden members (in red) fixed primary support wooden members and the frame of the Paata (Paata with 9 legs)

Fig.4.1_48 Illustration showing the deformation of plain sawn wooden plank.

Fig.4.1_49 Photograph of Paata, Sippani chowk, mawa Patti, walled city, Bikaner.

To prevent the planks to cup and sag metal flat is nailed on the planks.

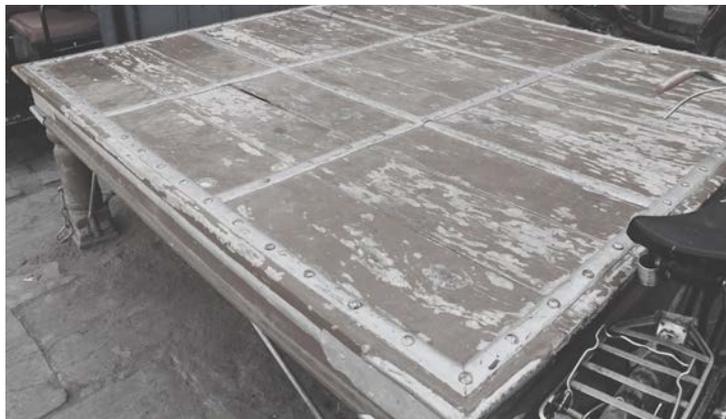


Fig.4.1_49

Another deformity is seen in the legs of the Paata. With the passage of time, the bottom part of the leg tends to abrade.



Fig.4.1_50

To prevent the weathering of the wood, a metal flat is nailed at the bottom part of the leg.

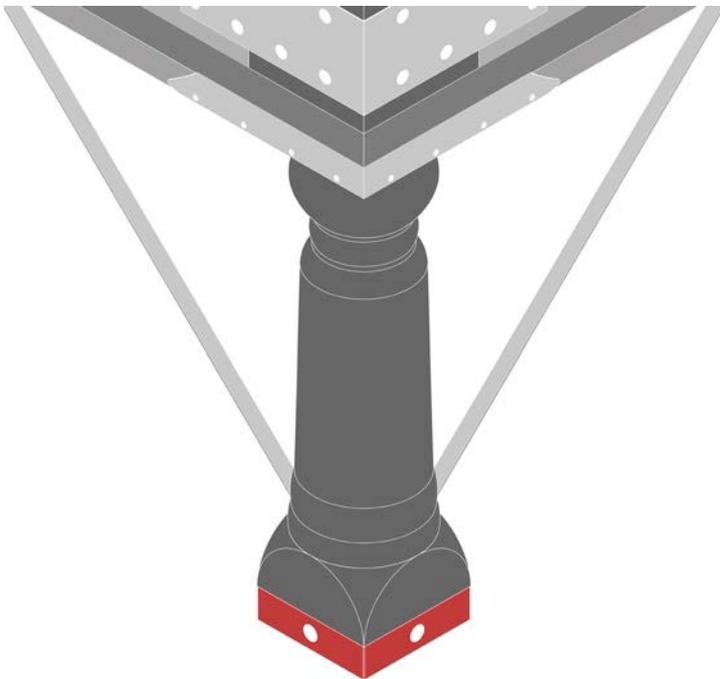


Fig.4.1_51



Fig.4.1_52

The size of the metal flat vary from 1 to 1.5 inch and the thickness of the metal flat vary from 1 to 1.5mm.

Structurally, the weight and the dimensions of the Paata also restrict the application of torsional and shear force to the frame system preventing damage and keeps the Paata stable despite heavy weight due to undistributed live load.

Finishes and polish

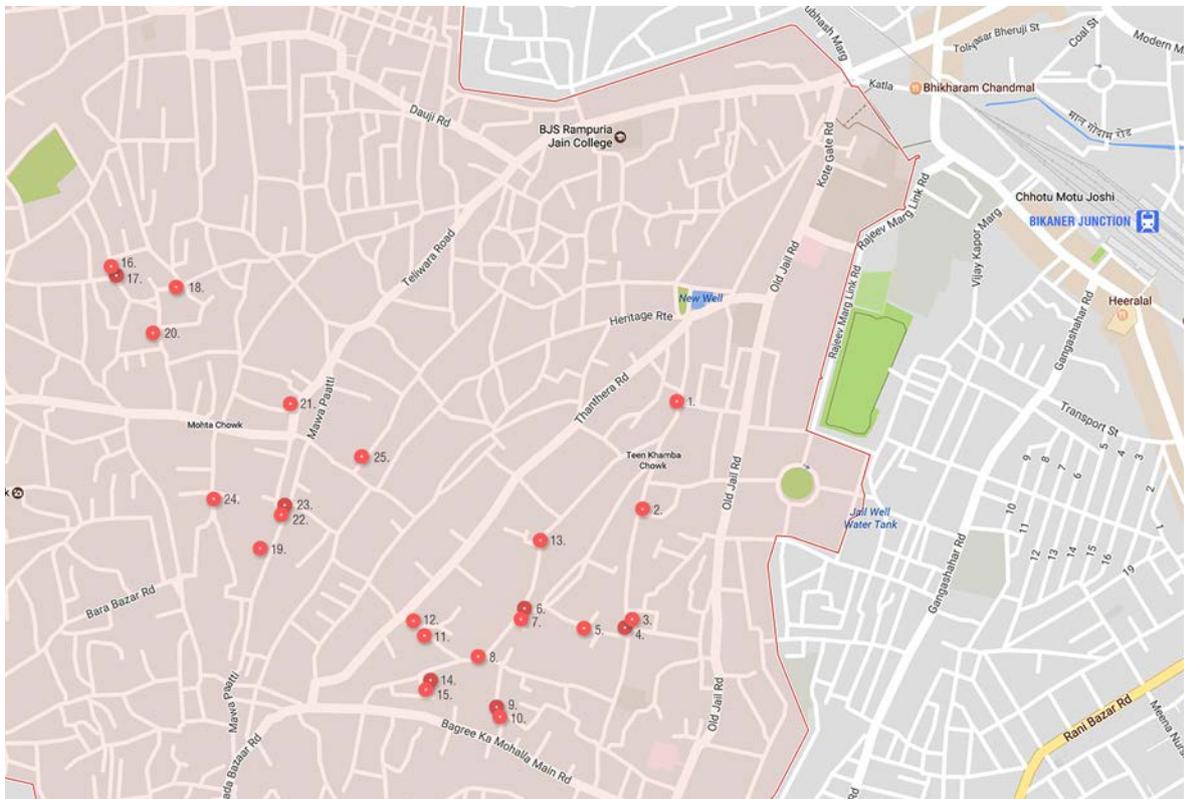
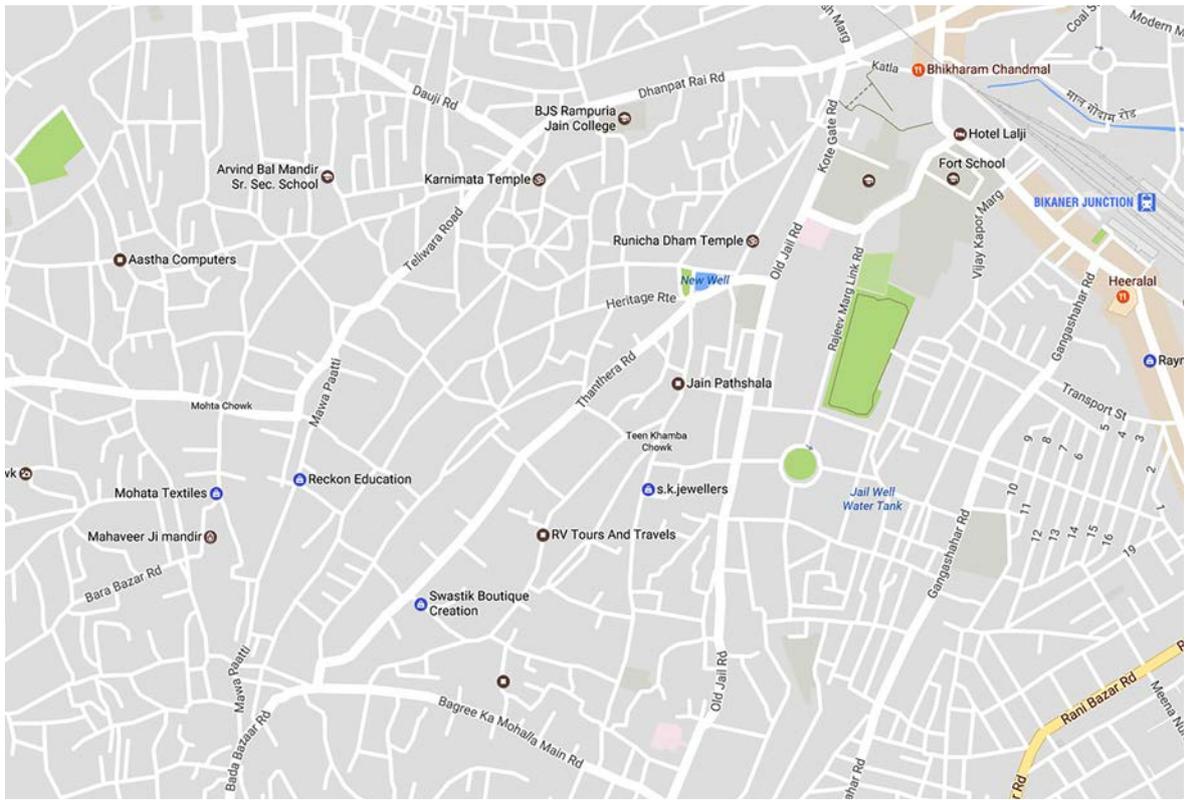
During every holi, days before holi commence wooden Paata found in the public domain are polished with oil. Polishing the wood with oil provides a finish to the Paata and enhance its appearance. Polishing increased resistance to moisture and other environmental agents. It also resist the cracking of wood caused due to constant heat, rain and other environmental agents.

Polishing with oil also help in sealing the pores in the wood that can be breeding grounds for bacteria and termites and keep it sanitized.

Fig.4.1_50 Photograph showing the erode leg of *Paata* getting. Mawa patti, walled city, Bikaner.

Fig.4.1_51 3D illustration showing the a metal rim at base of leg.

Fig.4.1_52 Photograph showing the leg of *Paata* with metal rim fixed at the base of the leg.



4.2 Paatas in the Walled city

Different shapes and size of paata are mapped within the Havelis and Chowks of the walled city of Bikaner, as shown in the map.

Majorly the Paata, within the public domain i.e; chowks and mohalla of a community are documented, as they are observed to have a unique socio-culture importance in the lives of people of the walled city.

List of *Paata* documented, as shown in map.

1. Teen Khambha Chowk (28.011917,73.308249)
2. Sunaro Ki Guwad (28.010358,73.307681)
3. Khocharo Ka Chowk (28.008708,73.307444) 104
4. Khocharo Ka Chowk (28.008603,73.307379)
5. Sirohiya Ka Mohalla (28.008605,73.306709)
6. Daga Sethiya Parak Gawad (28.008863,73.305722)
7. Daga Sethiya Parak Gawad (28.008731,73.305687)
8. Kothari Mohalla (28.008160,73.304977)
9. Dadho Ka Chowk (28.007403,73.305276)
10. Dadho Ka Chowk (28.007330,73.305315)
11. Rangri Chowk (28.008491,73.304068)
12. Rangri Chowk (28.008702,73.303896)
13. Sunaro ki Badi Guwad (28.00988,73.305998)
14. Dassaniyo ka Chowk 9 (28.007697,73.304105)
15. Dassaniyo ka Chowk (28.007814,73.304208)
16. Damani Chowk (28.013900,73.298922) Chattri
17. Damani Chowk (28.013965,73.299131)
18. Kikani viyaso Ka Chowk (28.013587,73.299991)
19. Sippani Chowk, Mawa Patti (28.009779,73.301388)
20. Mundhara Ka Chowk (28.012928,73.29961)
21. Telliwara Road (28.011887,73.301886)
22. Banthia Chowk, Mawa Patti (28.010263,73.301725)
23. Banthia Chowk, Mawa Patti (28.010263,73.301725)
24. Mohta Chowk (28.010502,73.300613)
25. Soni Singhi Ki Chowk (28.011111,73.303056)

Fig.4.2_1 Map of Bikaner city.

Fig.4.2_2 Map of Bikaner city, showing the walled city boundary and locating the documented *Paata* within the city.

■ Walled City, Bikaner



4.3 Types of Paata

Paata : Type 1

These type of *Paata* are rectangular in shape with varied sizes as per their use.

The size of the *Paata* vary from 1.5 ft to 3 ft in width, in length, it varies from 4 ft to ergonomically a person can sleep on it and in height it vary from a foot to 2 ft.

In the Haveli, the *Paata* is found in entrance lobby to sit, in the bedroom either to relax or sleep. This type of *Paata* is also found in temples to sit in the front of the idol for religious recital or to keep the religious objects used for prayer and rituals.

The *Paata* is made out of Sheesham wood; it is either Polished or Painted as per the place where it used.

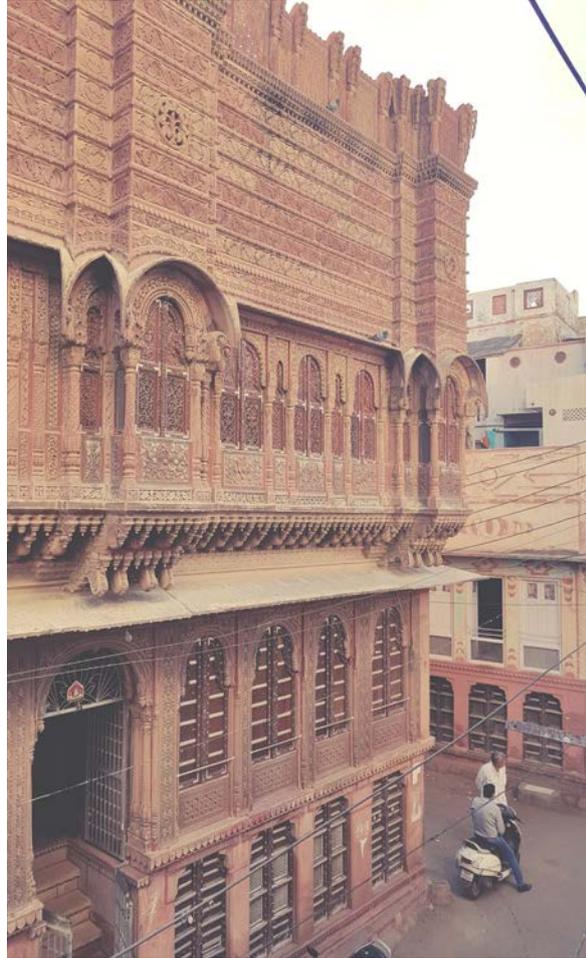
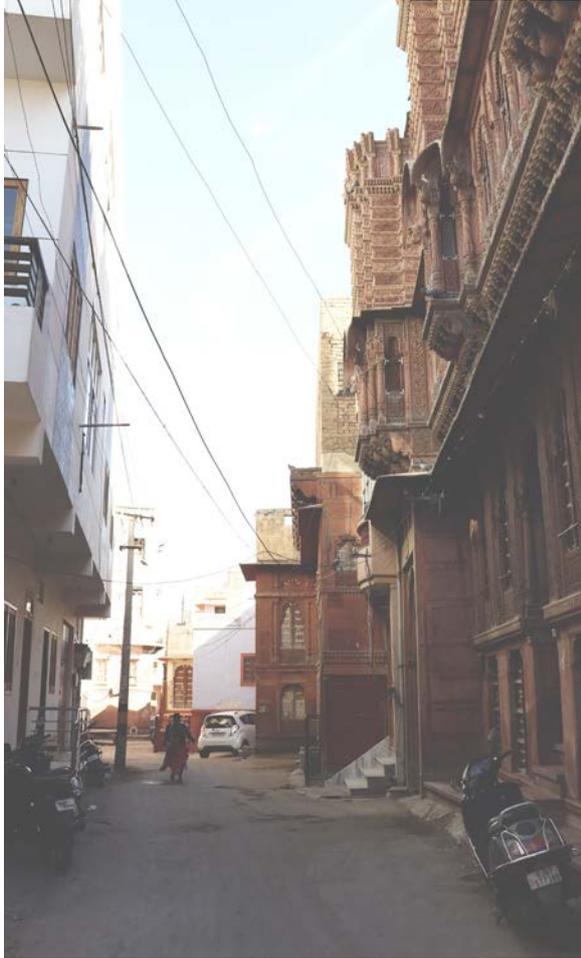


Fig.4.3_1(Top Left), Fig.4.3_2(Top Right), Fig.4.3_3(Bottom)

Study

Location

It is the haveli of Poonumchandji Anundmull Kothari at Dad-ho Ka Chowk in the walled city of Bikaner.

Walking through the narrow street, you reach to this magnificent haveli, around the corner with two facades exposed to the street with intricate carving on a dulmera stone. The haveli is around 100 years old, was said by the present owner of the house. Till now, the haveli from inside out is still intact in its original form and style with few interventions with time and generation occupying it.



Fig.4.3_4

Fig.4.3_1 Photograph showing the street outside Poonumchandji Anundmull Kothari ki haveli. Kothari moholla, walled city, Bikaner.

Fig.4.3_2 Photograph showing the Poonumchandji Anundmull Kothari ki haveli facade. Kothari moholla, walled city, Bikaner.

Fig.4.3_3 Photograph showing the courtyard of Poonumchandji Anundmull Kothari ki haveli. Kothari moholla, walled city, Bikaner.

Fig.4.3_4 Map showing the location of the documented *Paata* at Poonumchandji Anundmull Kothari ki haveli.



Fig.4.3._5



Fig.4.3._6



Fig.4.3._7

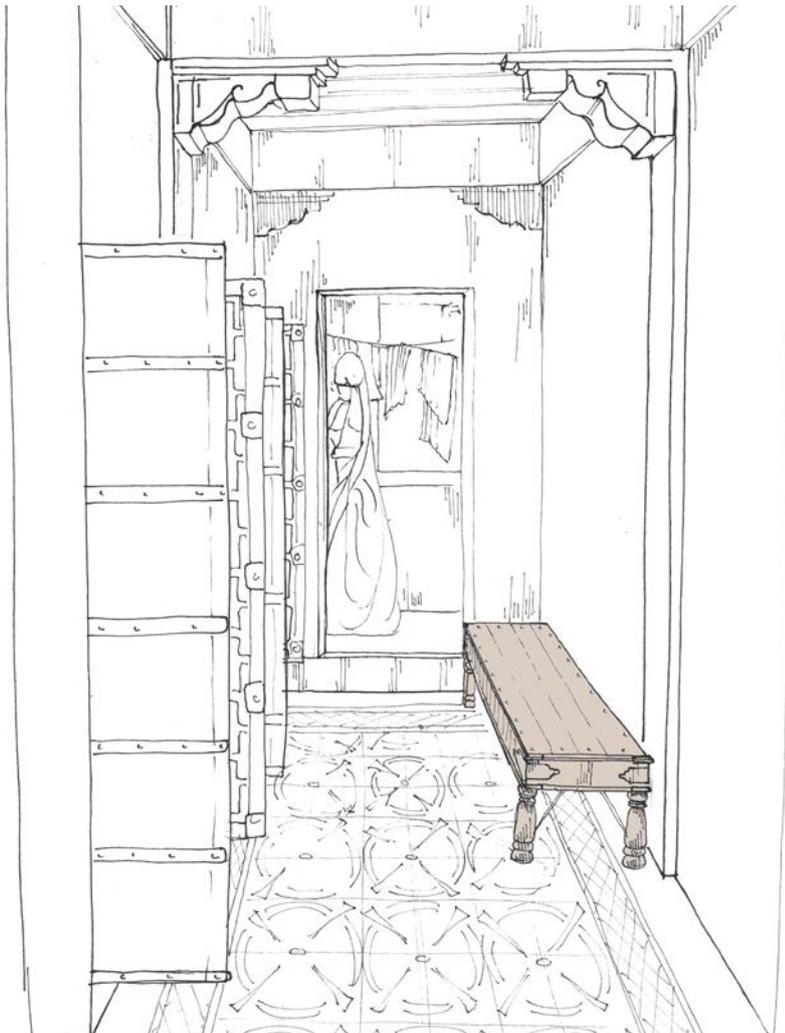


Fig.4.3._8

Description of Paata

The Paata is found in *Barsali*, It is an entrance lobby to the main house running across its width. It is entered through the main door and also from *Diwankhanas*. The Paata found in a *Barsali* is a simple rectangular seating made up of Sheesham wood with turned leg. The size of this Paata is 5 ft X 1.5 ft and a foot high.



Fig.4.3_9

Fig.4.3_5 Photograph showing entrance of PoonumchandJi Anundmull Kothari ki haveli from street. Kothari moholla.

Fig.4.3_6 Photograph showing entrance of PoonumchandJi Anundmull Kothari ki haveli from landing after 6 setps. Kothari moholla.

Fig.4.3_7 Photograph showing the Patta in a lobby (*Barsali*) just after entrance landing. PoonumchandJi Anundmull Kothari ki haveli, Kothari moholla.

Fig.4.3_8 Sketch showing the position of *Paata* in a entrance lobby (*Barsali*). Kothari moholla.

Fig.4.3_9 Photograph of Paata in Barsali at PoonumchandJi Anundmull Kothari ki haveli. Kothari moholla.

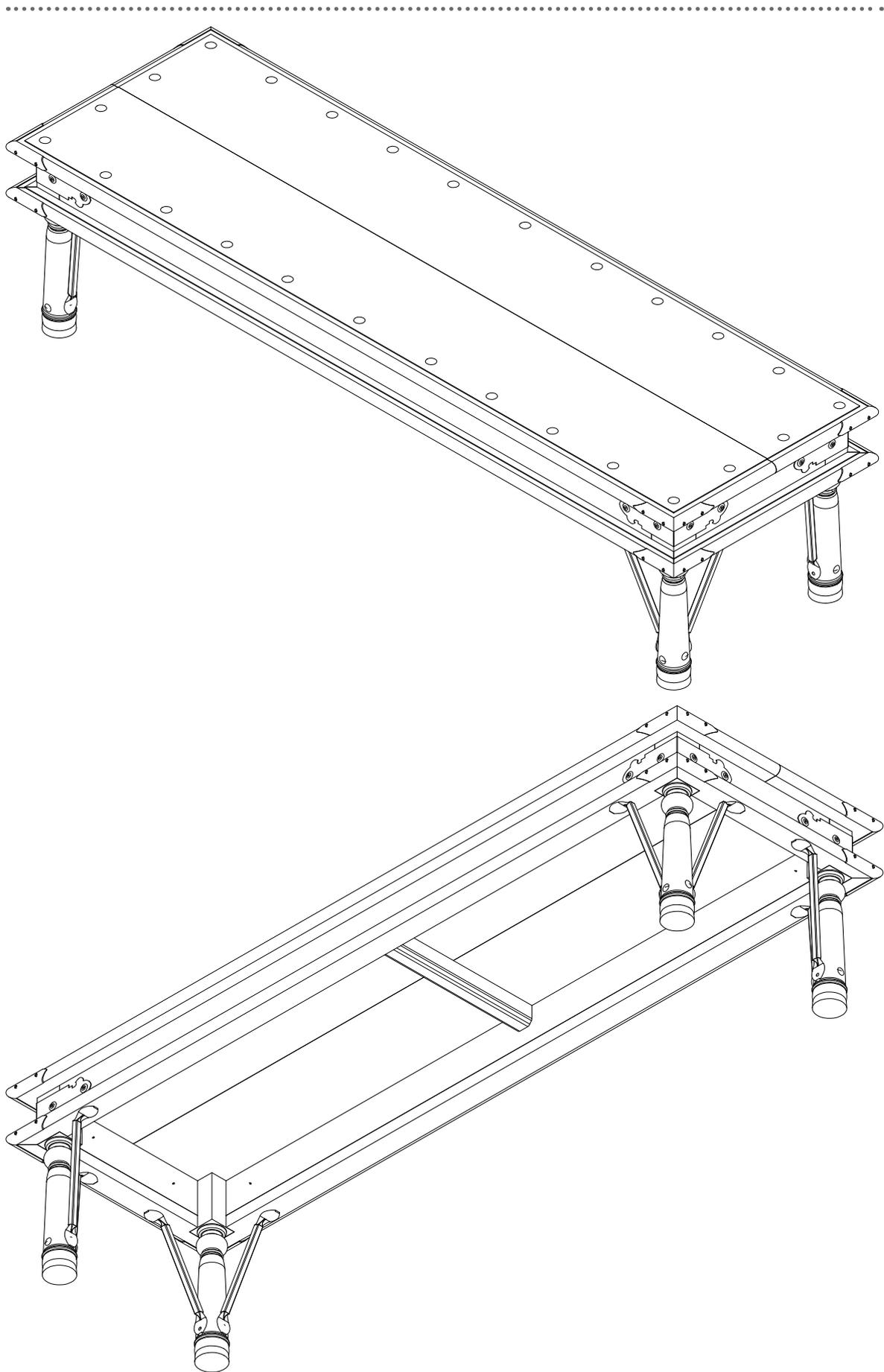


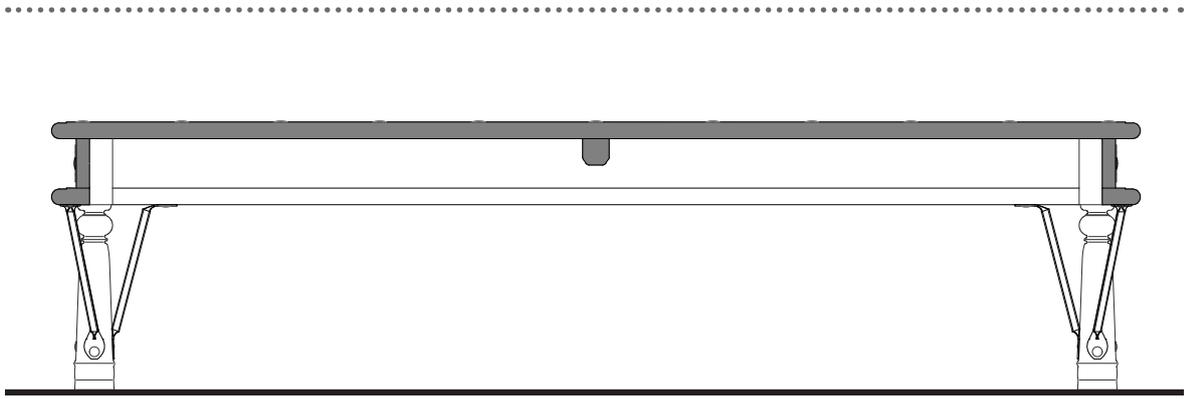
Fig.4.3_10(Top), Fig.4.3_11(Bottom left), Fig.4.3_12(Bottom right)

Fig.4.3_10 Photograph showing front elevation of *Paata* placed in *Barsali* at PoonumchandJi Anundmull Kothari ki haveli.

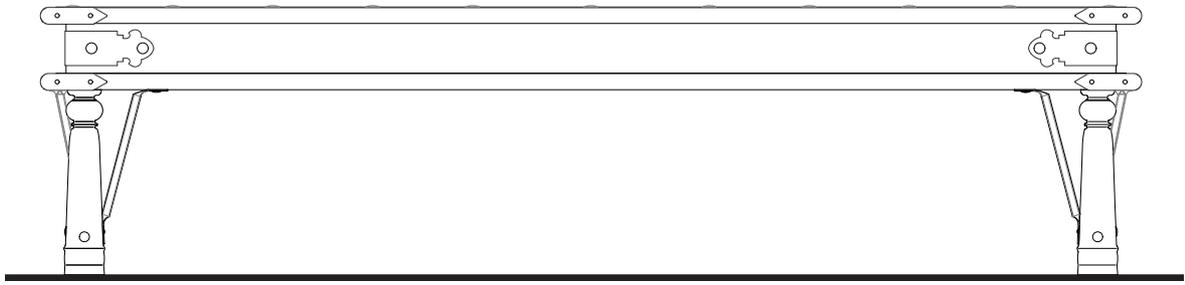
Fig.4.3_11 Photograph showing side elevation of *Paata* placed in *Barsali* at PoonumchandJi Anundmull Kothari ki haveli.

Fig.4.3_12 Photograph showing corner junction of *Paata* placed in *Barsali* at PoonumchandJi Anundmull Kothari ki haveli.

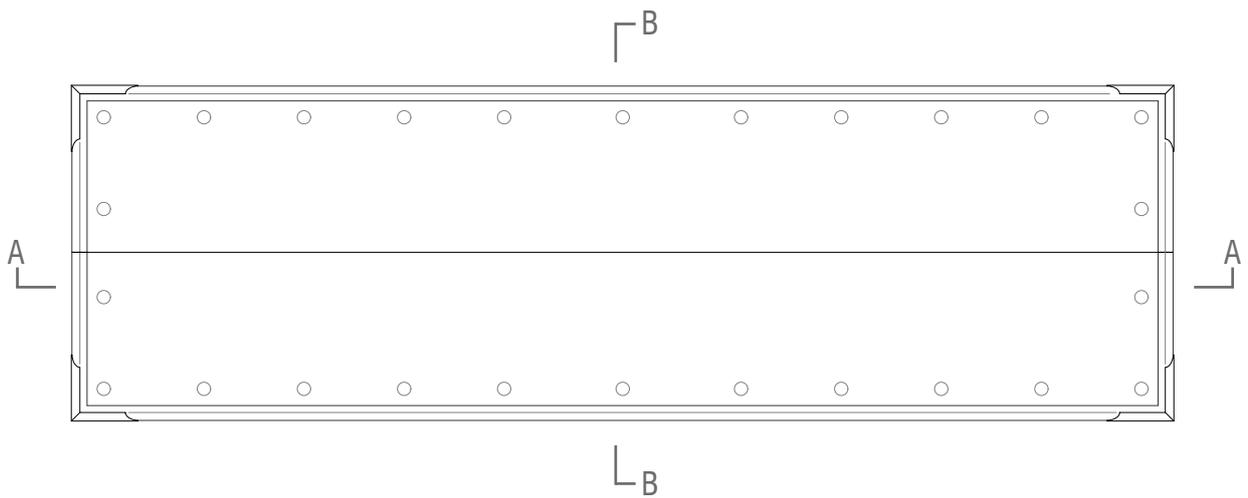




Section AA

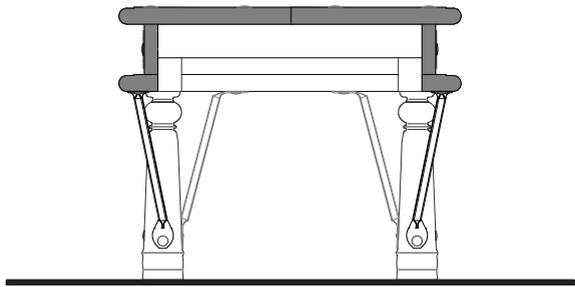


Front Elevation

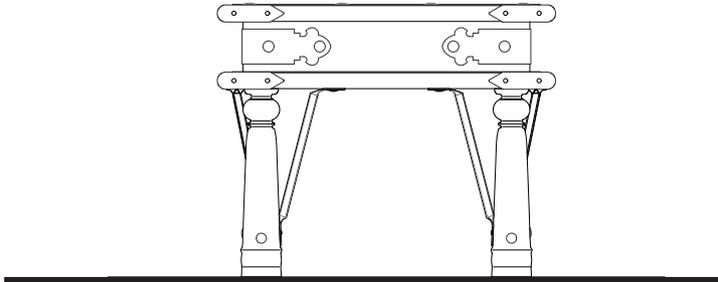


Plan





Section BB



Side Elevation



Similar type of *Paata* are also seen at temples.

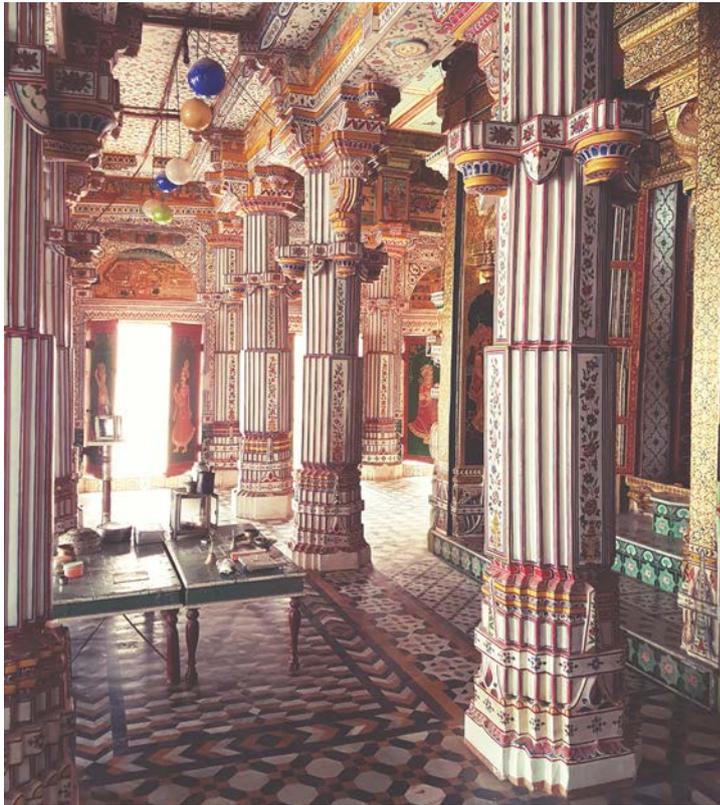


Fig.4.3_13

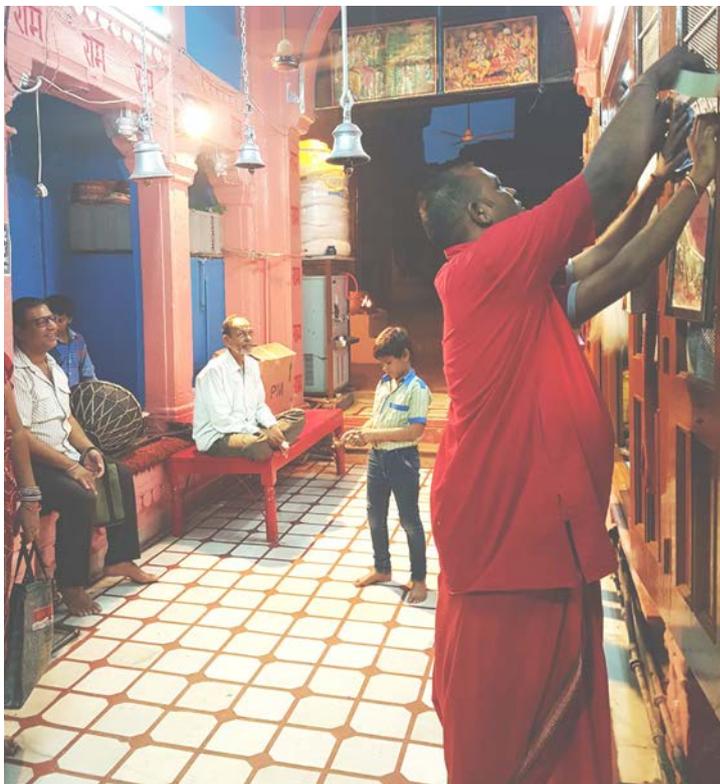
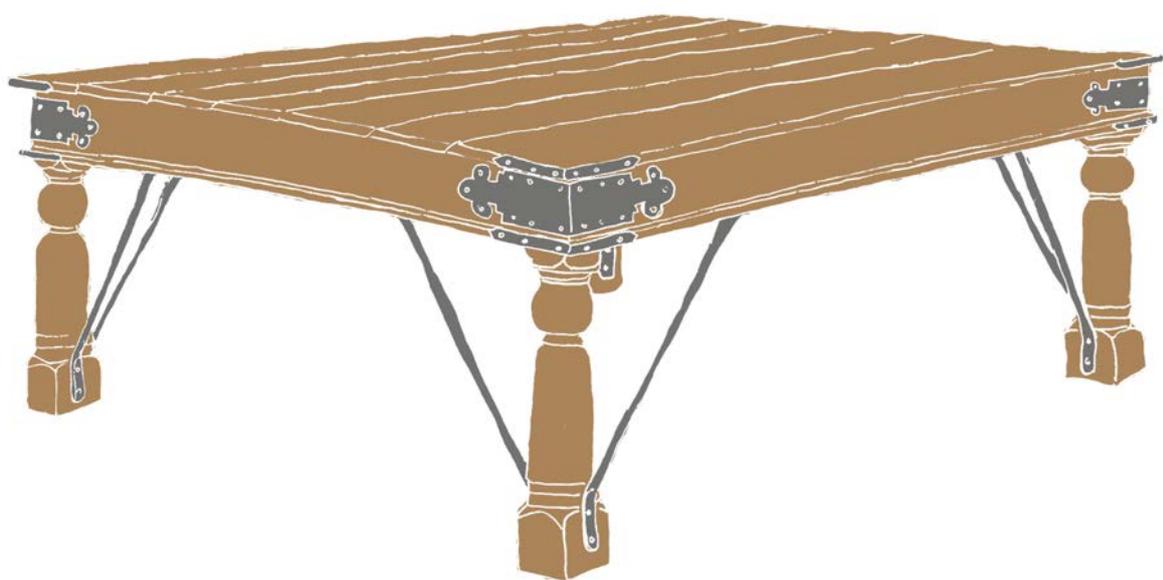


Fig.4.3_14

Fig.4.3_13 Photograph showing Paata used to keep religious objects. Seth Bhandasar Jain Temple, old city, Bikaner.

Fig.4.3_14 Photograph showing Paata used by people to sit, facing the deity. Hanuman Temple, Mohta chowk.





Paata : Type 2

These type of *Paata* are mostly squarish in shape with varied sizes.

The size of these *Paata* varies from 6 to 8 sq ft. *Paata* is entirely made out of Sheesham wood which has four heavy turned legs and different metal section and sheet on the corner, as an additional strength to *Paata*.

The *Paata* are found mostly outside the Havelis and few in the open plaza in chowks and Mohallas. They are also found outside temples. It is used in different social and cultural celebration within the community.

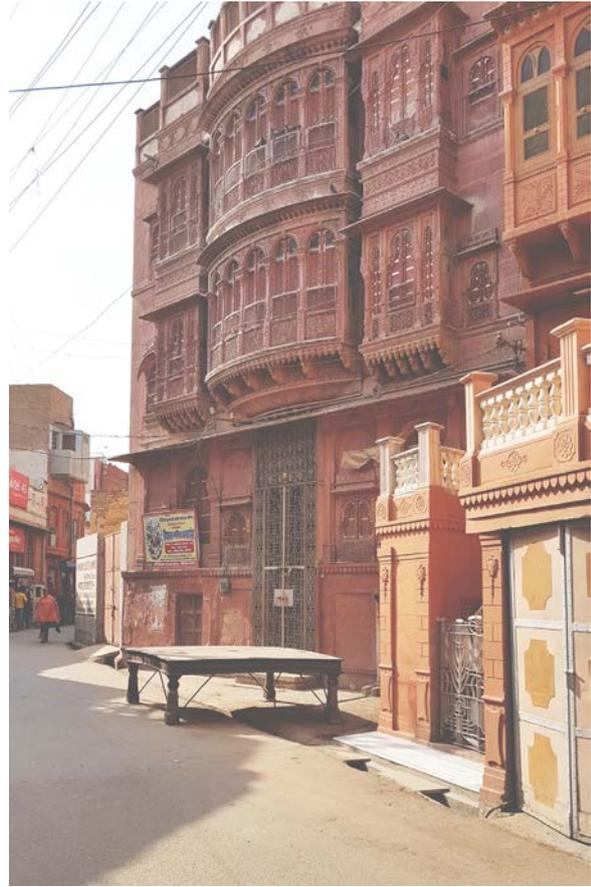
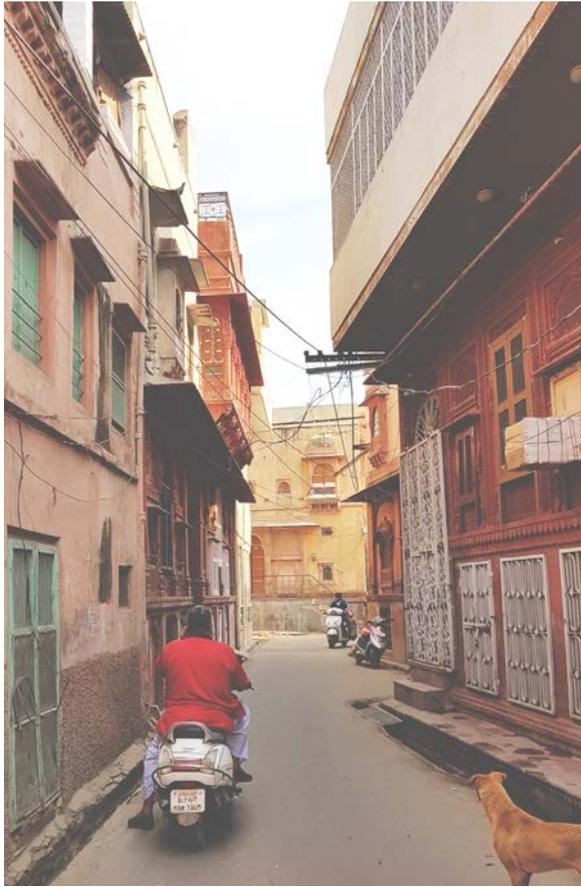


Fig.4.3_15(Top left), Fig.4.3_16(Top right), Fig.4.3_17(Bottom)

Photographs of Kothari Mohalla

Study

Location

The *Paata* is located at Kothari Mohalla, right outside the magnificent Haveli beside the street.



Fig.4.3_18

Description of Paata

The *Paata* is made up of Sheesham wood with turned legs. It is roughly 60-70 year old *Paata* as said by the nearby resident. The size of the *Paata* is 7.6ft X 7.5ft and 2.5ft in height. It is used by the community people to relax and meet people and passer-by to take rest. It is also used during a festive celebration in the community.

Fig.4.3_15 Photograph showing street of Kothari moholla.

Fig.4.3_16 Photograph showing the Paata placed outside the haveli on the street.

Fig.4.3_17 Photograph showing Paata placed adjacent to haveli.

Fig.4.3_18 Map showing the location of Paata within the walled city.

Fig.4.3_19 Photograph of Paata. Kothari moholla.walled city, Bikaner.



Fig.4.3_19

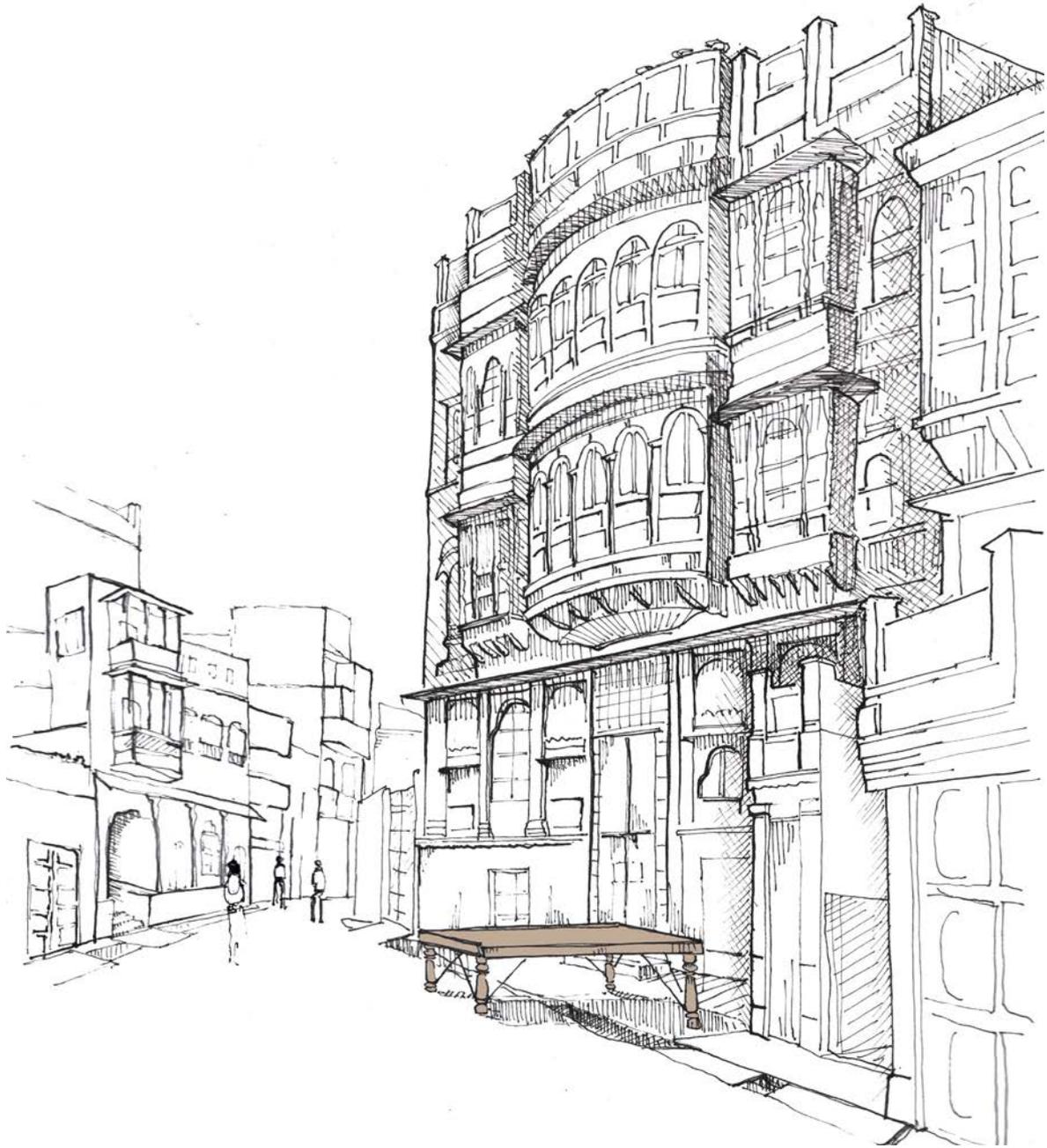


Fig.4.3_20

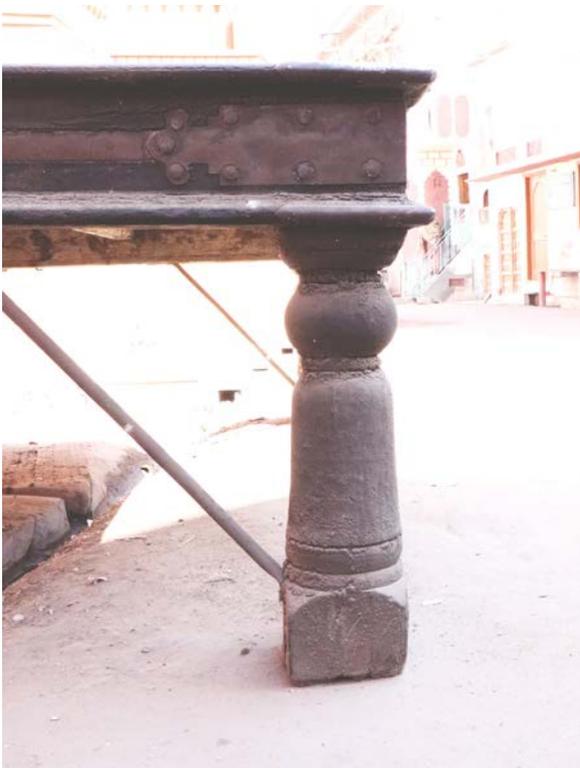


Fig.4.3_21(Top), Fig.4.3_22(Bottom left), Fig.4.3_23(Bottom right)

Fig.4.3_20 Sketch showing Paata placed outside magnificent haveli in walled city.

Fig.4.3_21 Photograph showing Paata from front. Kothari moholla, walled city, Bikaner

Fig.4.3_22 Photograph showing the leg of Paata. Kothari moholla, walled city, Bikaner

Fig.4.3_23 Photograph showing the structure of Paata from below.



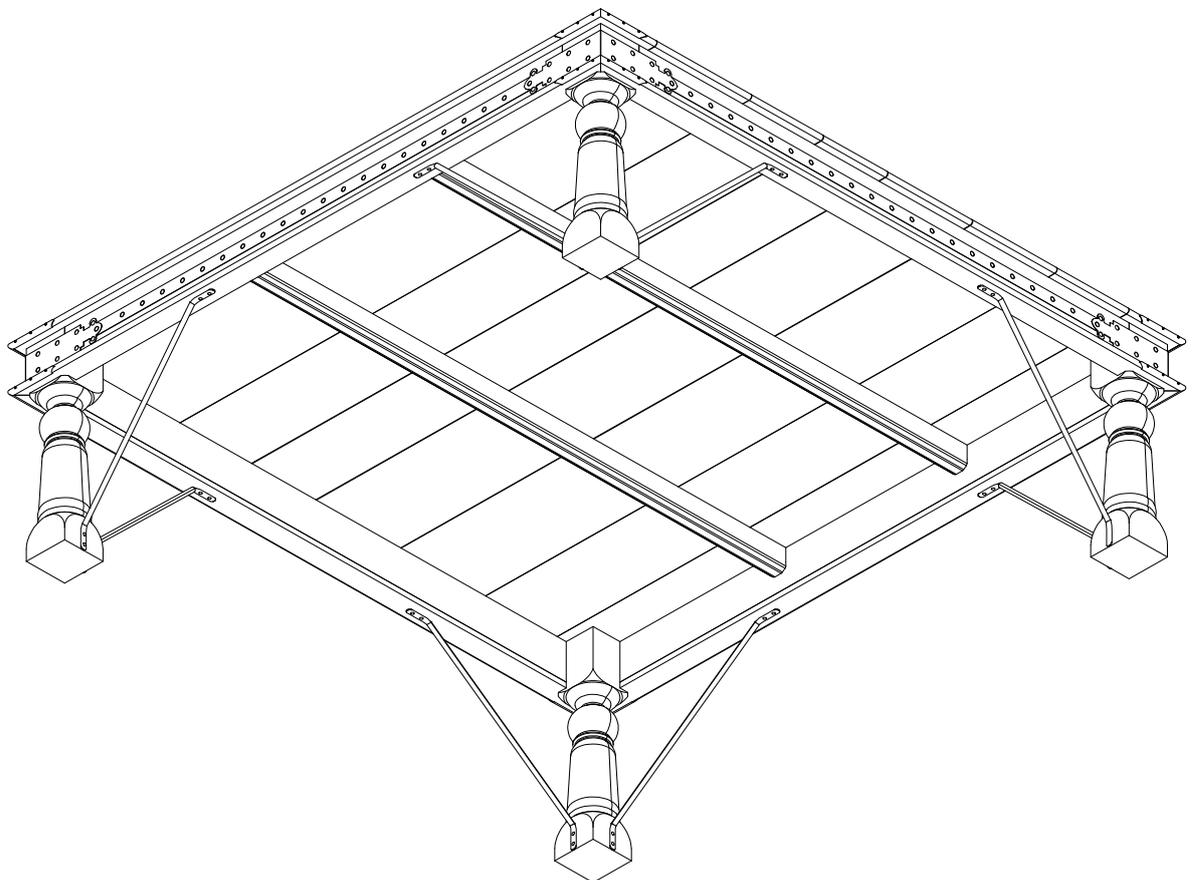
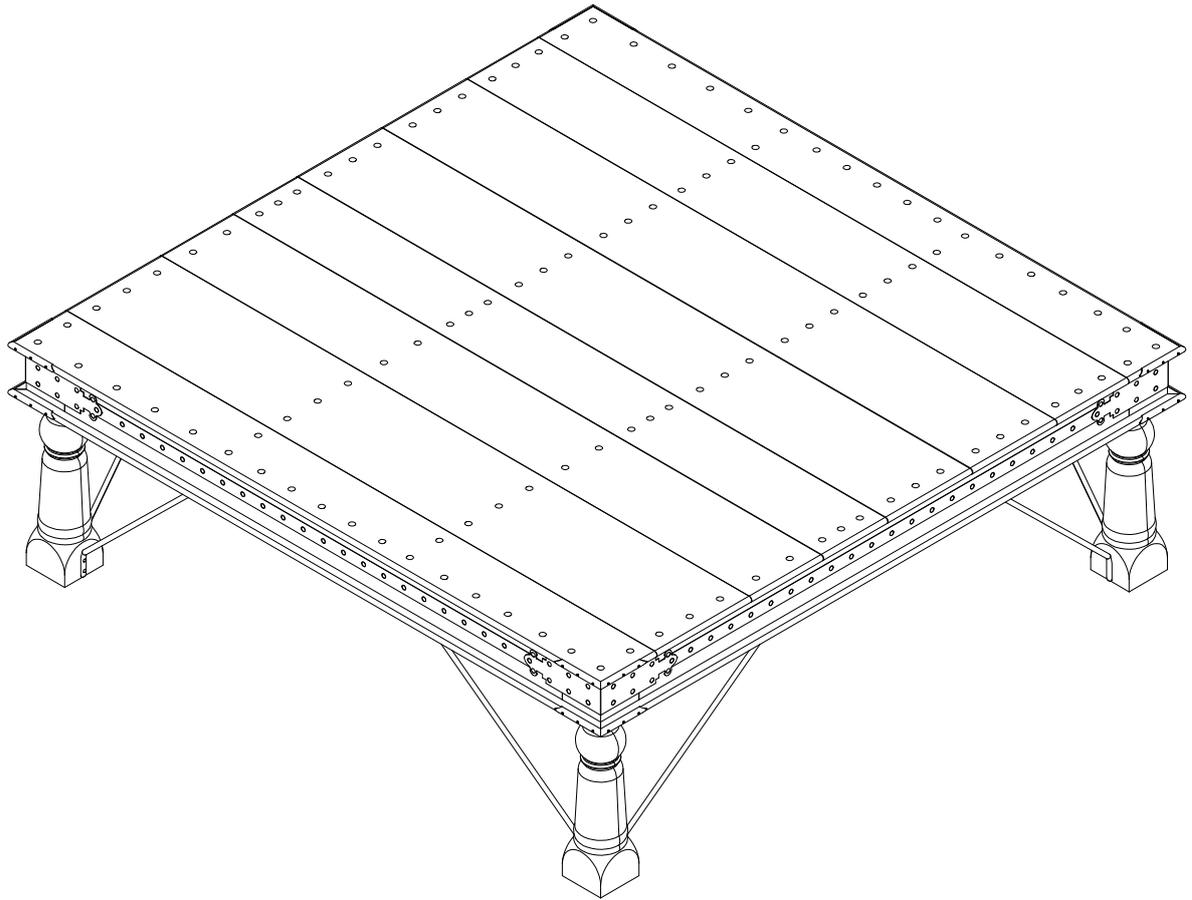
Fig.4.3_24(Top left), Fig.4.3_25(Top right), Fig4.3_26(Bottom left), Fig.4.3_27(Bottom right)

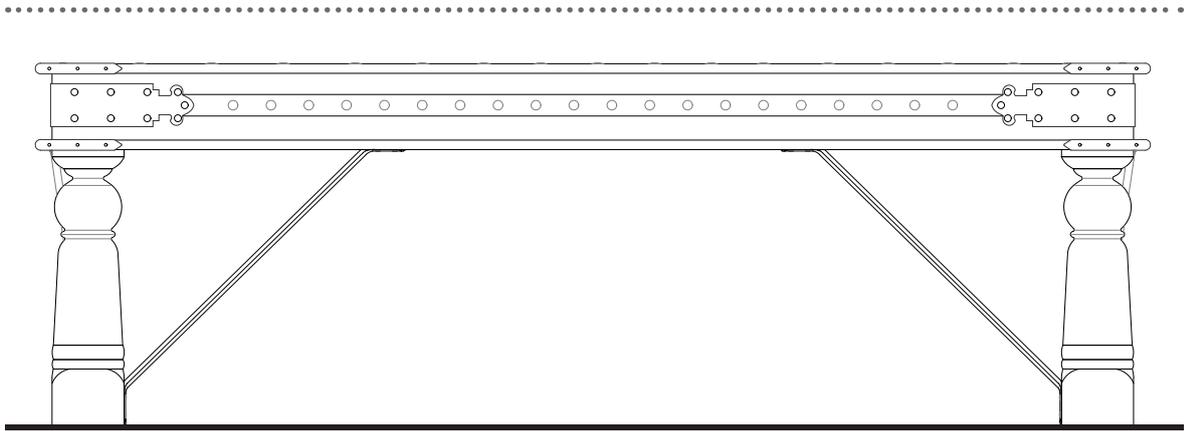
Fig.4.3_24 Photograph showing corner junction of leg and frame of the Paata. Photograph showing

Fig.4.3_25 Photograph showing corner junction of leg and frame of the Paata from below.

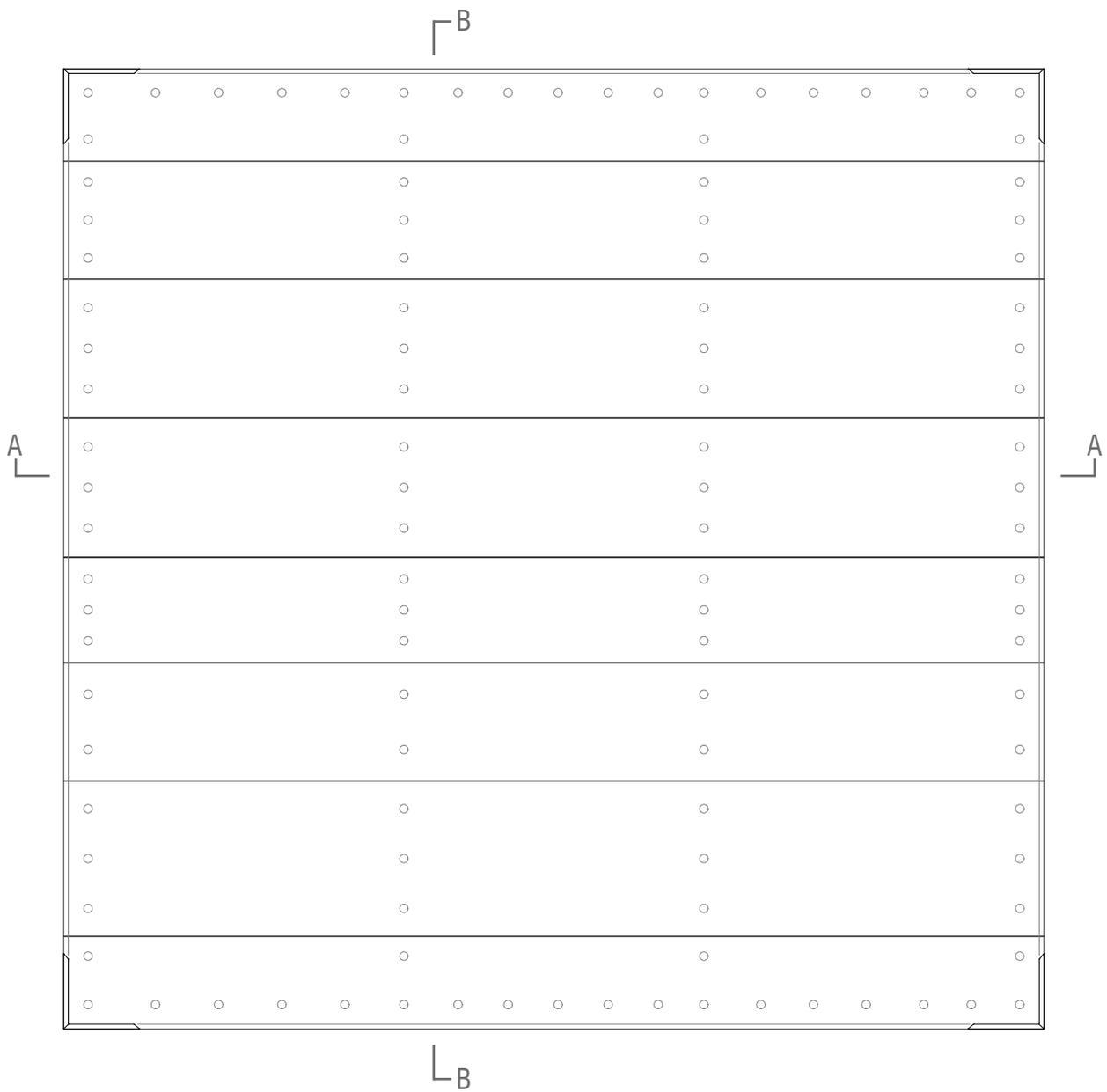
Fig.4.3_26 Photograph showing *Khuniyu* of Paata.

Fig.4.3_27 Photograph showing the seating surface of Paata.

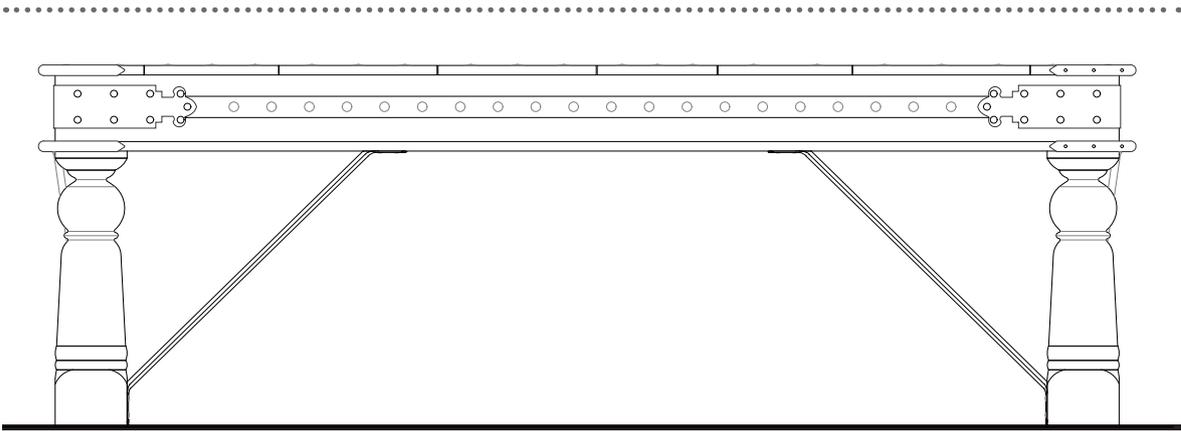




Front Elevation



Plan



Side Elevation





Section AA



Section BB



Similar type of *Paata* in different chowks and mohallas.



Name: Paata

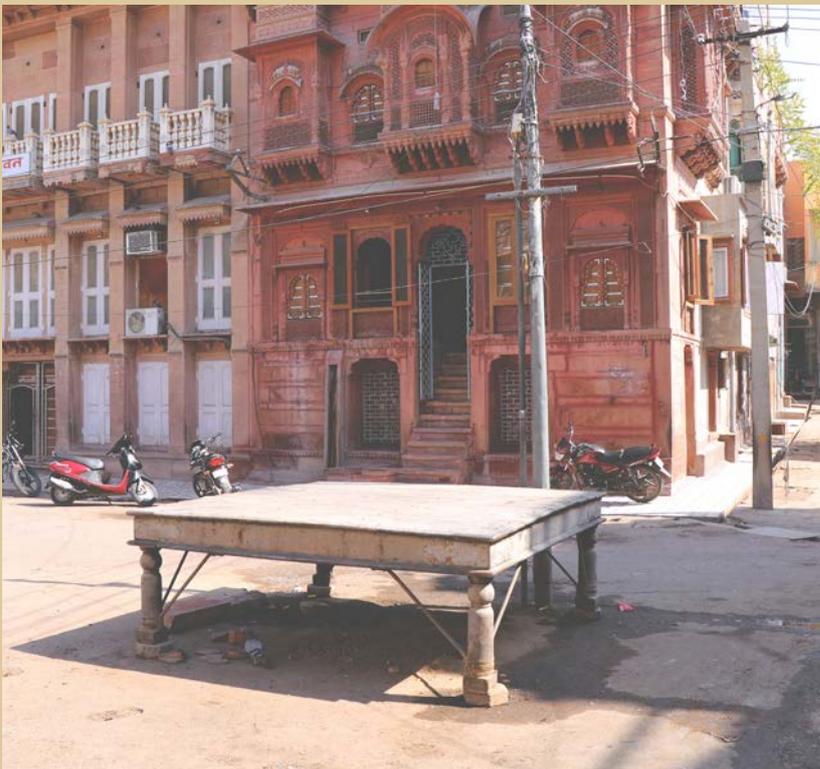
Location: Banthia Chowk, Mawa patti.

Geo Tag: 28.010263 N, 73.301725 E

Material: Sheesham wood, iron rod (15 mm) and iron sheet (1-1.5 mm thick).

Size: It is 7.3 x 7.6 x 2 ft.

Description: The *Paata* is placed outside the temple. It is used during religious gathering.



Name: Paata

Location: Dhadho ka chowk

Geo Tag: 28.007403 N, 73.305276 E

Material: Sheesham wood, iron rod (20 mm) and iron sheet (1-1.5 mm thick).

Size: It is 8.2 x 8 x 2.7 ft.

Description: The *Paata* is placed in an open chowk. The *Paata* is made in memory of Sunder Lal Mool Chand Parakh which is mentioned on the *Paata*. It has painted *Khuniyu*.

It is used by paaserby and people of the community to rest and meet people. It is also used during Gangaur celebration.



Name: Paata

Location: Daga Sethiya Parak Gawad

Geo Tag: 28.008731 N, 73.305687 E

Material: Sheesham wood, iron rod (15 mm) and iron sheet (1-1.5 mm thick).

Size: It is 7.6 x 7.6 x 2.4 ft.

Description: It is a panchayat Paata, and was used for panchayat meeting. Now the Paata is placed outside a temple.

Along with religious celebration, it is also used for community event and during weddings too.



Name: Paata

Location: Sunaro ki Guwad

Geo Tag: 28.010358 N, 73.307681 E.

Material: Sheesham wood, iron rod (15 mm) and iron sheet (1-1.5 mm thick).

Size: It is 7.6 x 7.6 x 2.4 ft.

Description: Paata is placed outside the haveli. It is made in memory of the owner of the haveli by her wife. (Inscribed on a metal plate, fixed on Paata.)

The inscription reads as "In the memory of Late Shri Jaganath Ji Sunar, the paata is made by her wife on Jyestha Sud, 2059 (Hindu calender)".



Name: Paata

Location: Dassaniyo ka Chowk
Geo Tag: 28.007814 N,
 73.304208 E

Material: Sheesham wood, iron rod (15 mm) and iron sheet (1-1.5 mm thick).

Size: It is 6.1 x 6.4 x 2.5 ft.

Description: *Paata* is placed adjoining to a wall facing the chowk. It is used by people to sit, relax and meet friends and relatives. *Paata* becomes a centre for information exchange.

The news or any information get shared and exchanged from Patta to Patta.



Name: Paata

Location: Sippani Chowk, Mawa patti.
Geo Tag: 28.009779 N,
 73.301388 E

Material: Sheesham wood, iron rod (15 mm) and iron sheet (1-1.5 mm thick).

Size: It is 7.2 x 7.2 x 2.5 ft.

Description: It is a panchayat *Paata*. The place where *Paata* is kept was given by Government as a legal land to sippani chowk Panchayat to keep *Paata* only. Nothing can be built over that place. *Paata* is 4 generation old.

(NOTE: the age of the *Paata* is procured by local people, and not by analysis)



Name: Paata

Location: Sirohiya ka Moholla

Geo Tag: 28.008605 N,
73.306709 E

Material: Sheesham wood, iron rod (15 mm) and iron sheet (1-1.5 mm thick).

Size: It is 7.8 x 7.7 x 2 ft.

Description: *Paata* is found in an open chowk, adjoining to the wall. It is used by paaserby and people of community as a meeting landmark. It is 62-65 year old, made around Samvat 2017. (Hindu calendar)

(NOTE: the age of the *Paata* is procured by local people, and not by analysis)



Name: Paata

Location: Telliwada

Geo Tag: 28.011887 N,
73.301886 E

Material: Sheesham wood, iron rod (15 mm) and iron sheet (1-1.5 mm thick).

Size: It is 6 x 6.2 x 2 ft.

Description: It is placed adjoining to the temple wall, in a narrow lane of telliwada, outside Hanumanji mandir.



Name: Paata

Location: Damani Chowk

Geo Tag: 28.013776 N, 73.299003 E

Material: Sheesham wood, iron rod (15 mm) and iron sheet (1-1.5 mm thick), iron 'L' section (1"x1") and Brass sheet.

Size: It is 6.8 x 6.8 x 2.5 (height till seating) ft.
Total height (till chattari) 10 ft.

Description: The Paata is placed on the periphery of the open ground (chowk), adjoining to the house.

It is the only Patta in entire Bikaner with canopy (Chattari) and was owned by Late Shri Changan Lal Damani. It is 100 years old

It is believe that the ancestors of Damani family, would have been an important person in Royal court. The King would have granted them permission to make Paata with a canopy (Chattari)

(NOTE: the age of the *Paata* is procured by local people, and not by analysis)



Paata : Type 3

The *Paata* are mostly squarish in the shape whose size vary from 8 to 11 sq ft and it height it varies from 2.5 to 3 ft.

The *Paata* are found mostly in the open plaza in chowks and mohallas. So that everybody in the community can access it. It is used by elder people to sit and relax, to meet their friends and family and to play cards games. It is used in different cultural and festive celebration within the community.

It is made out of Rohida wood but mostly out of Sheesham wood and it has 7 or 9 heavy turned legs with metal bars and sheets on corners which provides an additional strength to *Paata*.

The *paata* can entertain 15 people at a time and can cater the weight up to 20 people.



Fig.4.3_28(Top), Fig.4.3_29(Bottom).

Study

Location

The *Paata* is located in Dassaniyo Ka Chowk, in an open plaza surrounded by havelis and contemporary housing.

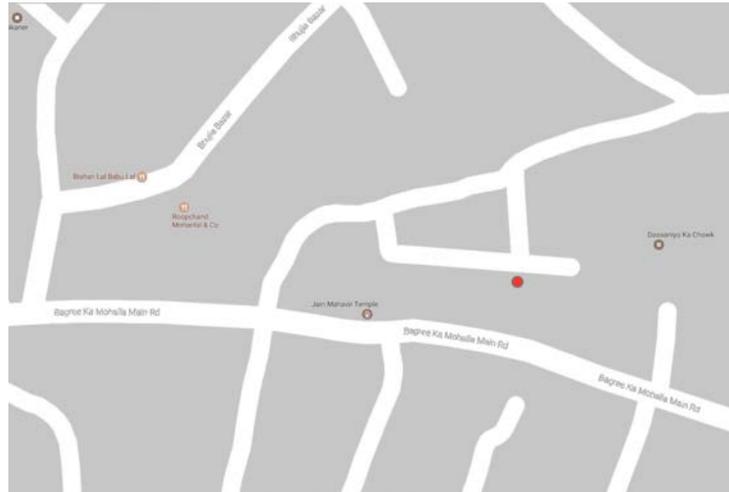


Fig.4.3_30

Description of Paata

The Paata is roughly 80 years old as said by the elders who had gathered at Paata. The size of Paata is 11.5ft X 10ft and 2.4 ft. in height. The Paata is made out of Sheesham wood with turned legs.

It is a community Paata, used by both elder and younger generation to relax and meet friends, to talk and share wisdom and information about the neighborhood.

Fig.4.3_28 Photograph showing Paata in Dassaniyo ka chowk.

Fig.4.3_29 Photograph showing Paata occupied by people. Dassaniyo Ka Chowk, walled city, Bikaner.

Fig.4.3_30 Map showing the location of Paata in Dassaniyo Ka Chowk

Fig.4.3_31 Photograph of Paata. Dassaniyo Ka Chowk, walled city, Bikaner.



Fig.4.3_31



Fig.4.3_32



Fig.4.3_32 Sketch of Paata at Kocharo ka chowk, wallec city, Bikaner.

Fig.4.3_33 Photograph showing the front view of Paata. Dassaniyo ka chowk.

Fig.4.3_34 Photograph showing the junction of frame and the centre leg of the Paata from below. Dassaniyo ka chowk.

Fig.4.3_35 Photograph showing the *khu-niyu*, *Taan* and *Paaga* of Paata.

Fig.4.3_36 Photograph showing the junction of frame and the centre leg on the periphery of the Paata.



Fig.4.3_33(Top), Fig.4.3_34(middle), Fig.4.3_35(Bottom left), Fig.4.3_36(Bottom right)

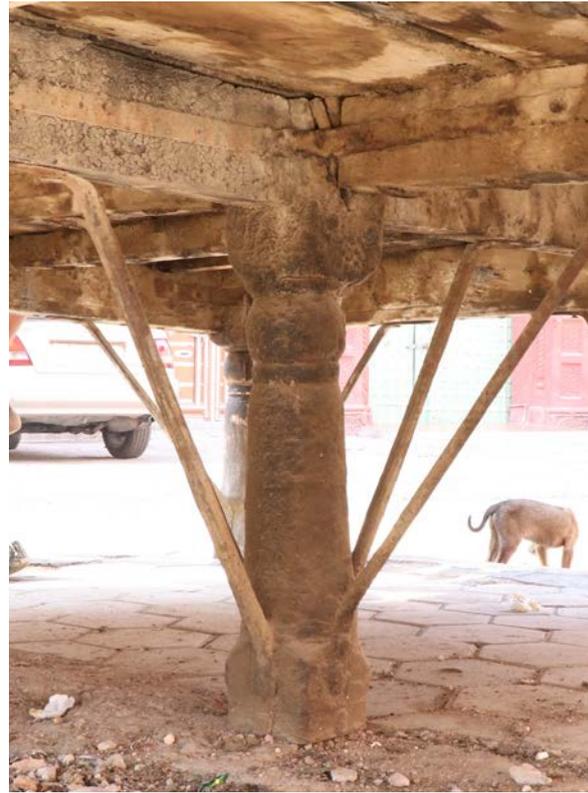
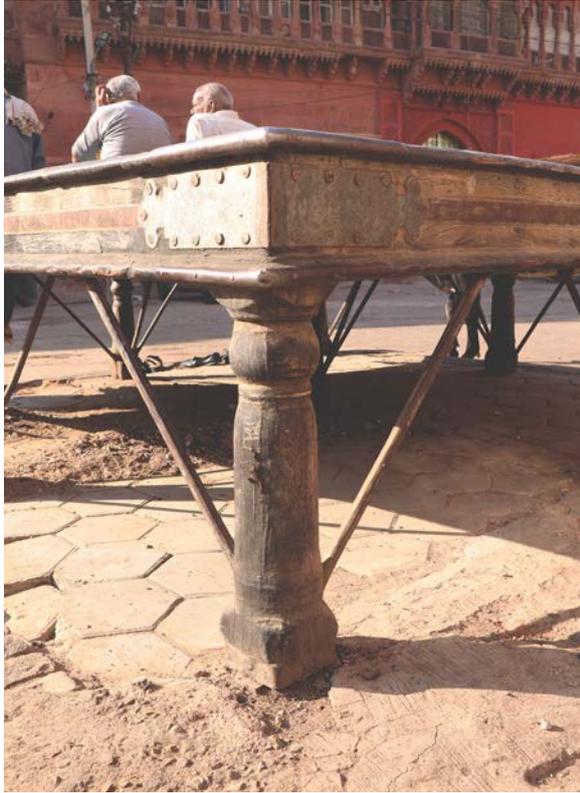


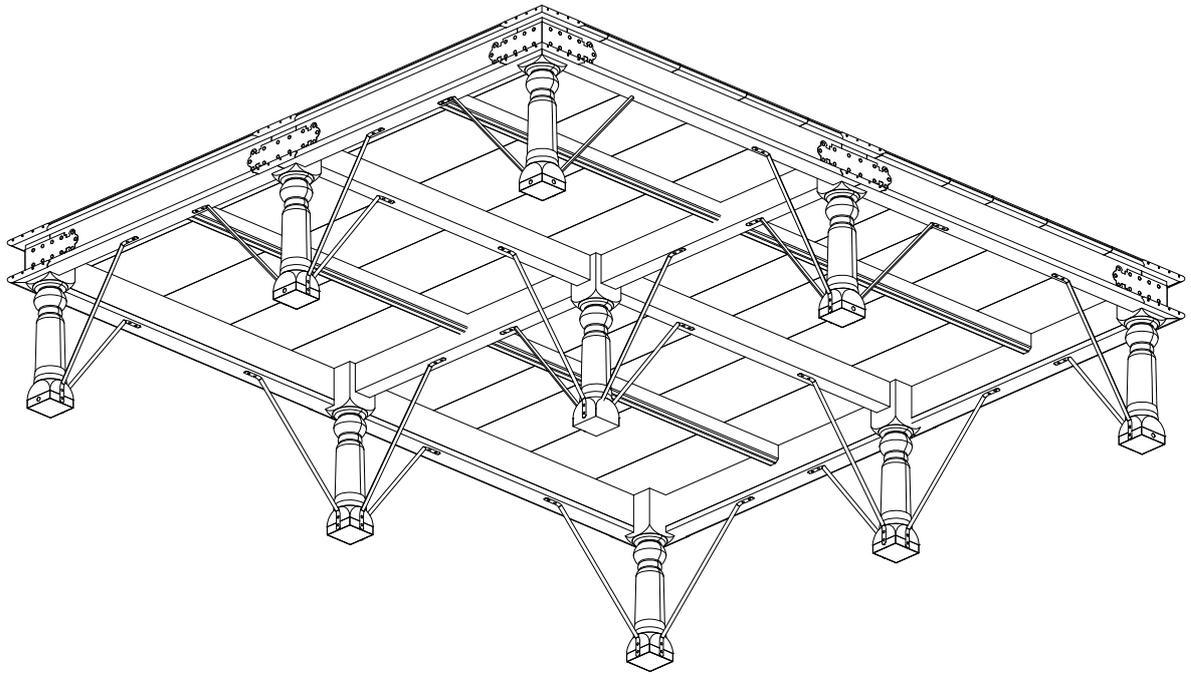
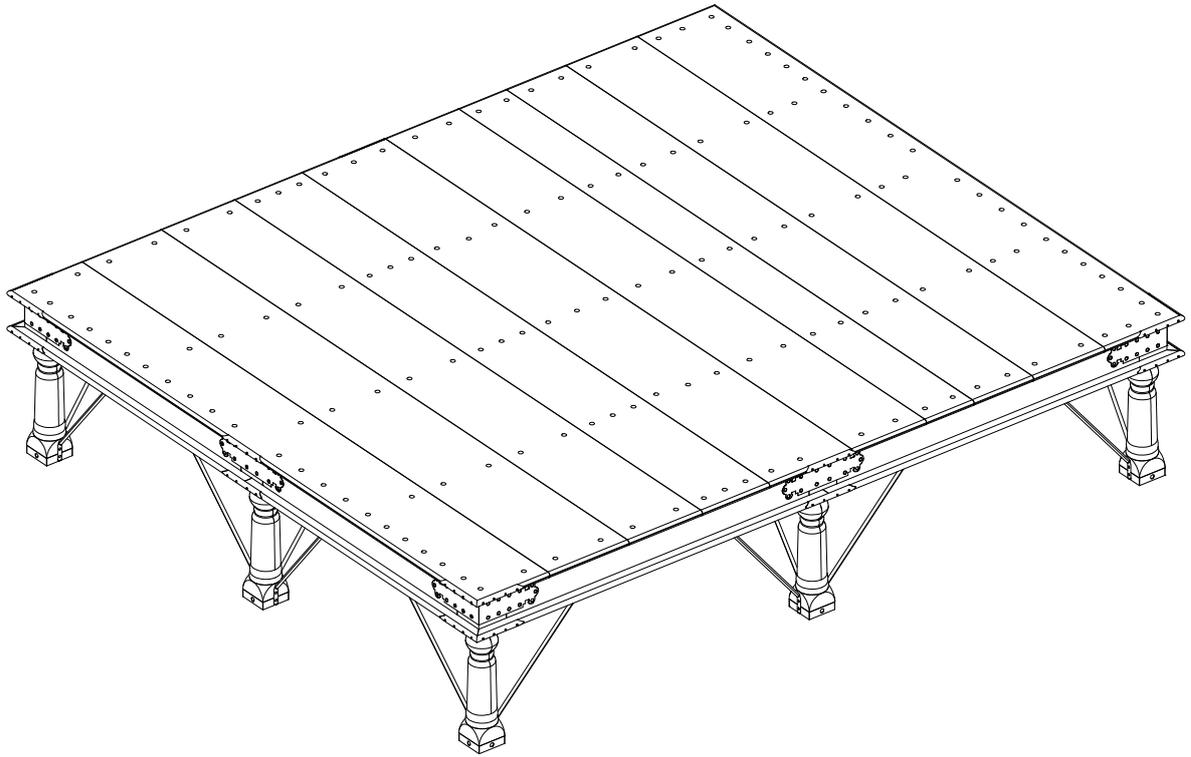
Fig.4.3_37(Top left), Fig.4.3_38(Top right), Fig4.3_39(Bottom left), Fig.4.3_40(Bottom right)

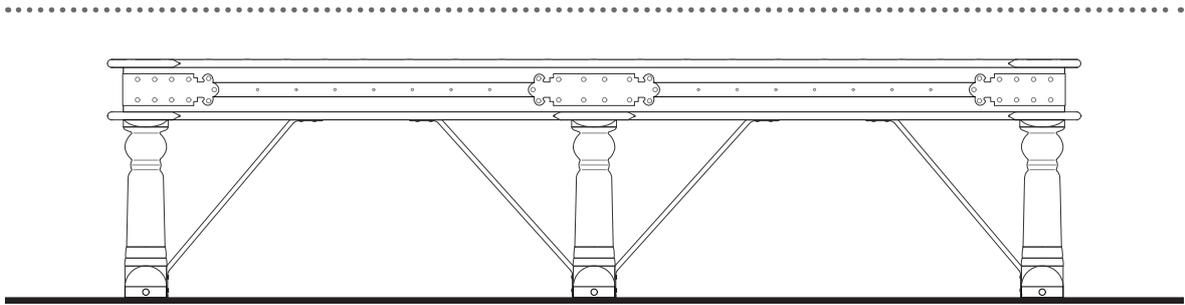
Fig.4.3_37 Photograph showing the corner junction of Paata.

Fig.4.3_38 Photograph showing junction of centre leg from below.

Fig.4.3_39 Photograph showing the nailing of *khil* to fix wooden plank to frame. Dassaniyo ka chowk.

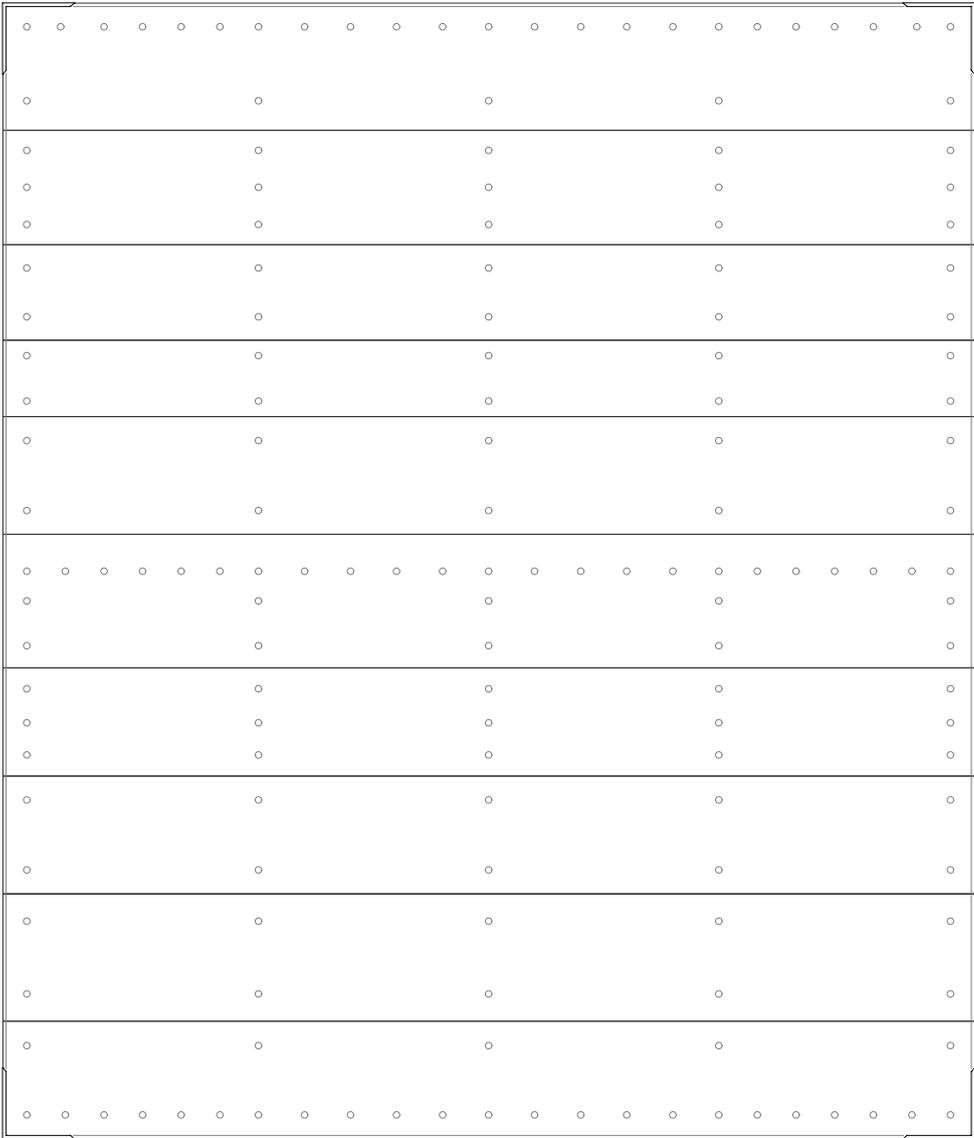
Fig.4.3_40 Photograph showing the termination of nail at the frame from below. Dassaniyo ka chowk.





Front Elevation

B



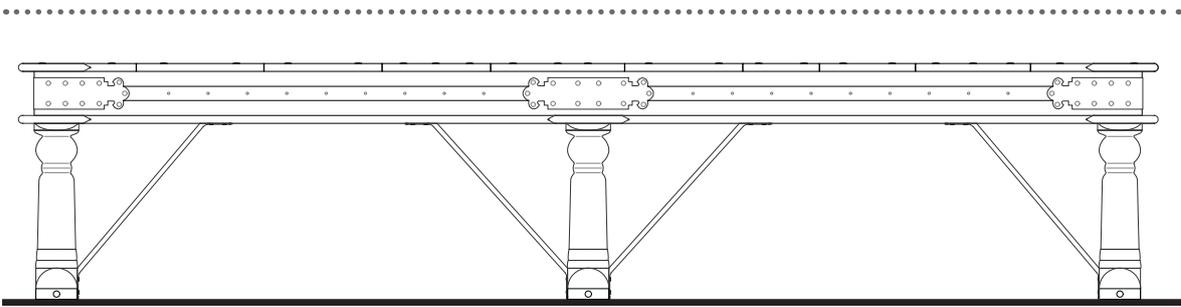
A

A

B

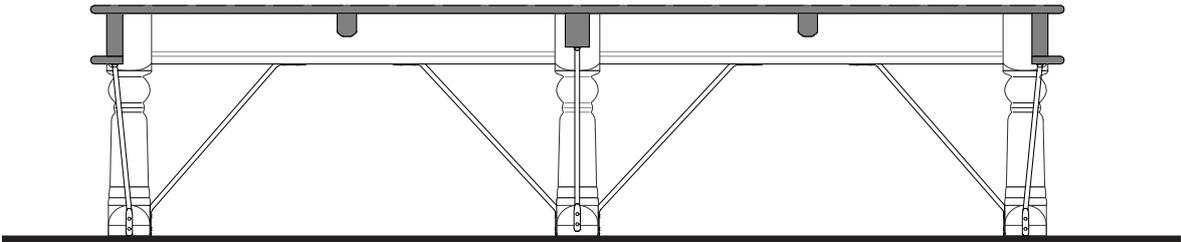
Plan



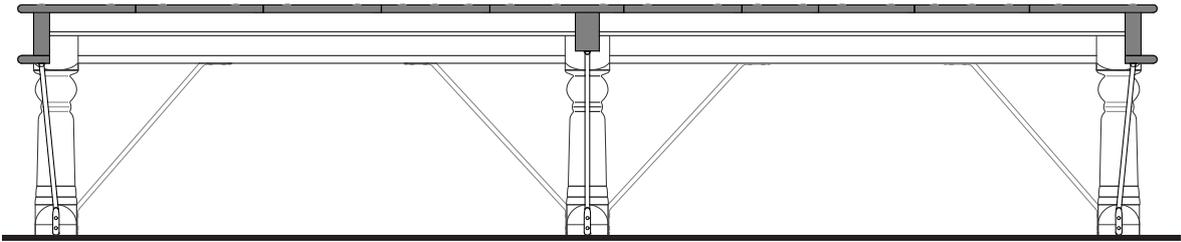


Side Elevation

50 0 100 200 500mm



Section AA



Section BB



Similar type of *Paata* in different chowks and mohallas.



Name: Paata

Location: Kocharo Ka Chowk

Geo Tag: 28.008708 N,
73.307444 E

Material: Rohida wood, iron rod (20 mm) and iron sheet (1-1.5 mm thick).

Size: It is 12.4 x 8.3 x 3.2 ft.

Description: *Paata* is rectangular in shape with 7 legs. The seating surface was of Rohida wood, but it is restored now with a sagvan wood. It is 104 year old *Paata*.

(NOTE: the age of the *Paata* is procured by local people, and not by analysis)



Name: Paata

Location: Mundhara Ka Chowk

Geo Tag: 28.012928 N,
73.29961 E

Material: Sheesham wood, iron rod (20 mm) and iron sheet (1-1.5 mm thick).

Size: It is 9.1 x 9.1 x 2.7 ft.

Description: *Paata* is square in shape with 7 legs. It is placed in an open chowk adjacent to narrow lane. It is a panchayat paata, and it is placed to its designated place given to panchayat.

4.4 Change in making of *Paata*

Understanding what is 'Change' ?

Change is the law of nature. So for any object, either lives or dead, tangible or intangible, ancient or modern goes through change and so does the society. It must constantly adapt itself to changing circumstances.

Change is the difference in the kind of previous phase or existence. An object with a specific form and the function inevitably suggests the next incarnation of that object, which then almost certainly will come about. Every artifact is the product of human intentionality, but that intentionality itself is conditioned by the existence of the previous object. And thus the new kind is the derivative of the previous one.¹



The change is observed in everything which people surrounds with them.

Physical environment, demographic factor, cultural factor, ideational factor, economical and political factor governs the change in society. With technological advancement, urbanization and rapid industrial growth, the pace of the change has increased and it is adapted to the society and an individual, as it is benefiting them.

Change in *Paata*

Over a period of time due to external factors, a change is observed in the *Paata* found within the chowk of the walled city of Bikaner. The change is observed in terms of durability and costing, resulting in the change in the material and thus the design of the *Paata*.

Fig.4.3_1 It is a carpenter pencil, the oldest known pencil in existence. Now it is a part of the Faber-Castell private collection, GmbH & Co., Germany.

Fig.4.3_2 Staedtler Noris Pencil

Fig.4.3_3 Staedtler Mars Technico Designer's Mechanical Pencil

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The Paata documented within the walled city are which are estimated to be 50-100 year old are made of either Rohida wood or Sheesham wood. The wooden Paata within the urban domain is getting replaced by Paata made of metal section, which can be made quickly and requires less maintenance. Despite the change in the material of Paata, the proportion of Paata is still the same with a change in design.



Fig.4.3_4 Photograph showing people seating on metal *Paata*.

Fig.4.3_5 Photograph of metal *Paata*.

Though the material of paata is changed, it has adapted to new design, ornamentation, and construction what material enables. And thus the Paata culture is still intact within the walled city of Bikaner. Paata has become the skeleton of the culture of Bikaner.



Fig.4.3_6



Fig.4.3_7

Fig.4.3_6 Photograph showing people gather on and around metal Paata

Fig.4.3_7 Photograph showing a man seated on a metal Paata outside a temple.

Citation

1. Csikszentmihalyi, Mihaly. *Why We Need Things; An essay in History from things: essays on material culture* by Lubar, Steven D. Washington: Smithsonian Institution Press, 2000. Print.
<https://llk.media.mit.edu/courses/mas714/fall02/csik-things.pdf>



Chapter 5
Conclusion

5.1 Paata Culture

The *Paata* culture is deeply rooted in the community of the walled city of Bikaner. The diversity of *Paata* has manifested in a number of ways within the community. From spaces to places, individual to community, social to cultural tradition, religion to entertainment,

In every society for an individual or a community to sustain, the mobilization of resources and rituals is necessary.

Hence a structure within the social and cultural context is generated for its sustainability since there is structure; there arises a need to be free from the structure and a place to rejuvenate. Which transform an individual and a community from the social structure. The human needs generate a tangible or an intangible entity or an activity, to be a part of a structure or to get free from the structure.

In the walled city of Bikaner, *Paata* forms a diverse entity, which sustains the social and cultural structure of a community and thus of an individual. And it also forms a place of social entertainment which provides the freedom to the community from the structure to rejuvenate and relax. The *Paata* being cultural entity is also an important social entity.

Engineer and sociologist Dr. Jyri Engestrom used the term “social object” and the related phrase “object-centered sociality” to address the distinct role of objects in social network.¹

These artifacts and experiences are all social object. Social objects are the engines of socially networked experiences, the content around which conversation happens. Social object allows people to focus their attention on the third thing rather than on each other, making interpersonal engagement more comfortable. People can connect with strangers when they have a shared interest in specific object. We connect with people and place around us through our interest and shared experience of the object around us.²

Paata exist all around in the chowks and mohollas of the walled city of Bikaner. The *paata* found in an urban fabric forms the social object, a threshold place for the people and the community who are immersed in *Paata* culture con-



sciously or unconsciously. Individuals assemble in groups at the *Paata* in urban or a public domain is involved in different activities and thoughts mix to generate ideas and emotions and sentiments are stirred.

Paata being involved and contributing to this cultural phenomenon lineage in the walled city has resulted into the manifestation of physical places in an urban domain, all across the walled city.

Human being and furniture are indeed bound together in a collusion in which the furniture takes on a certain density, an emotional value - what might be called a 'presence'.³

Furniture is generally isolated as to their function, and it is the user who is responsible, as his needs dictate, for their co-existence in a functional context⁴. The user interacts with different elements and materials in a manner, what furniture allows in his presence. Thus *Paata* is the nucleus in the lives of an individual and community momentarily, as the need arises and is one of the important object of the material culture of the community in the walled city of Bikaner.

Observations

It is observed that all the *Paata* documented on field work, either found outside the havelis owned by a family or in a chowk owned by a panchayat, were crafted and design in response to the socio-economic background of a family or a community. The detail ornamentation and the crafting stylization reflect the economic and social status of the user/user group.

It was observed that the design and the construction of the *Paata* are evolved from the understanding of the material behavior, its structural tenacity, its durability, and availability aspect.

Mostly the *Paata* are made out Rohida and Sheesham wood. These quality timbers are hardwood and therefore are strong, durable and long lasting wood. Both the wood has termite and pest resistance quality. *Paata* are annually polished with oil, which protects wood against the extreme climatic condition.

Fig.5.1_1 Photograph showing men occupying the *Paata*. Kocharo ka chowk, walled city, Bikaner.

Rohida tree is medium in size with a diameter up to a maximum of 1.3 and with height varying from 1 to 3 m. While the Sheesham tree is a medium to large deciduous tree It can grow up to a maximum of 25 m in height and 2 to 3 m in diameter but is usually smaller.

So as per the availability of the size of the wooden section, a varied size and proportion of Paata are observed in the walled city.

Citation

1. Simon, Nina. The Participatory Museum, Ch-4 Social Object. *Www. participatorymuseum.org/chapter4/#footnote-754-2.*
2. Simon, Nina. The Participatory Museum, Ch-4 Social Object. *Www. participatorymuseum.org/chapter4/#footnote-754-2.*
3. Baudrillard, Jean. *The System of Things*. Verso, 1996. Print. London, U.K.
4. Baudrillard, Jean. *The System of Things*. Verso, 1996. Print. London, U.K.



Glossary

Abhinaya

(Sanskrit Abhi- 'towards' + nii- 'leading/guide') is the art of expression in Indian aesthetics. More accurately it means "leading an audience towards" the experience (bhava) of a sentiment (rasa).

Aada

An inbuilt niche constructed in a structural wall for storage is called Aada. It has painted a wooden door for safety.

Bari

In the walled city of Bikaner, there are five main gates and nine small gates to enter the walled city. The small gate is called 'Bari'.

Bhavar Dhol

A large, barrel-shaped or cylindrical wooden drum, typically two-headed

Chaitra

Chaitra is a month of the Hindu calendar. In the Indian National calendar, chaitra is the first month of the year.

Chatra

The Chatra (from Sanskrit: चतुरास्र, meaning "umbrella") is an auspicious symbol in Hinduism, Jainism, and Buddhism. It is a decorated canopy in shape of an umbrella, found on top of the idol of God.



Chhatri

The word Chhatri means "canopy" or Umbrella. Chhatris are elevated, dome-shaped canopy used as an element in Indian architecture

Chawar

Chawar is object with a metal handle with a bunch of nylon or cotton hair like thread fixed of equal length. It is hold from the metal end and waved in front of idol of God as part of ritual.



Chowk

An open market area or a plaza in a city at the junction of two roads. In Bikaner, residential settlement area is called *Chowk*.

Daitya

In Hinduism, the *Daityas* are a clan or race of *Asura* (a member of a class of divine beings in the Vedic period, which in Indian mythology tend to be evil) as are the *Danavas*

Darjee

The Tailor

Diwankhana

In the havelis of the Bikaner, *Diwankhana* is the room for social meeting or for business. It is the place where guest and visitors are entertained. A haveli have two such room which can be accessible from the entrance landing itself and from the lobby (*Barsali*) inside

Dere / Dera

A dwelling tent or a dwelling unit

Dhal

Shield : a broad piece of metal or another suitable material, held by straps or a handle attached on one side, used as a protection against arrows and sword in war fight.

Fālgun or Phālgun

Fālgun is a month of the Hindu calender. In the Indian National calender Falgun is the eleventh month of the year.

Gangaur

Gangaur is colorful and one of the most important festivals of people of Rajasthan and is observed throughout the state with great fervour and devotion by womenfolk who worship Gauri, the wife of Lord Shiva. It is the celebration of spring, harvest and marital fidelity.

Gesso

It is style of painting, includes the floral motifs painting with natural vegetable color. Mainly red and green are the ground colors. The entire surface is then coated with traditionally prepared varnished from linseed oil, called Chandras.

Gond/ Gond Katira

It is a tree gum just like any of myrrh (natural gum or resin extracted from a number of small, thorny tree species of the genus Commiphora.)

Gurjaro/Gurjar

Gurjar is Sanskrit originated word meaning the destroyer of an enemy. Gurjar are the warrior caste in Rajasthan. The people are called Gurjaro.

Guwad

In walled city of Bikaner the residential area where all occupational caste and craftsmen live is called *Guwad*.

Harijan

A member of a hereditary Hindu group of the lowest social and ritual status.

Haveli

The word Haveli is derived from the Arabic language, meaning "Partition" or the "Private space". The word haveli is now used as a generic term for a different style of regional mansion and houses, with the distinctive element of a courtyard.

Holi

Holi is a Hindu spring festival celebrated in India and Nepal, also known as the "festival of colors". The festival signifies the victory of good over evil, the arrival of spring, end of winter, and for many a festive day to meet others, play and laugh, forget and forgive. It is also celebrated as a thanksgiving for a good harvest.

Jangladesh/ Jāngala Des/ Jangal Pradesh

The meaning of the word Jangla is wild and desh means country. Thus jangladesh is the region with barren wilderness. The region of Bikaner, stretching across northern Rajasthan state in India, was earlier known as Jangladesh. It included the present-day district of Bikaner, Churu, Ganganagar, and Hanumangarh.

Jharokha

A *jharokha* (or jharoka) is a type of overhanging enclosed balcony used in Architecture of Rajasthan.

Karni Mata

Karni Mata was a female Hindu warrior sage born in the Charan caste. Also known as Shri Karniji Maharaj, she is worshiped as the incarnation of the warrior goddess Durga by her followers. She is an official deity of the royal family of Jodhpur and Bikaner.

Katha Vanchan

Katha means Story and Vanchan means reading. Katha Vanchan is a ritual of story telling or story reading.

Lohar

The iron-smith

Mahals

It is an Sanskrit word meaning "Palace".

Mangal Phera

Mangal Phera is the most important ritual in Hindu wedding ceremony, where a bride and groom circles around the sacred fire lit for the purpose amidst the Vedic mantras either seven or four times. Mangal means auspicious and Phera means to circumambulate.

Marusthali

It is a Sanskrit word meaning "Land of the Dead". Sand-dune covered eastern portion of the Great Indian (Thar) Desert in

western Rajasthan state, northwestern India.

Matka

A water Crock.

Matti

Clay or soil

Mehfil Hall

A room on the first floor of haveli with ornate interior called Mahal, held a private social gathering called as Mehfil (Parties), thus the room is also called as Mehfil hall.

Mohallas

The few residential settlement in walled city of bikaner are called *Mohallas*.

Monavat

It is Painting technique. In this technique mixture of *Matti* (clay) or brick is mixed with *Gond* (Gum) from tree or jag-gery along with methi powder to form a paste. This paste is used to make different floral motif and patterns, which then are painted with ground colors, followed by real gold paint detailing on the embossed which highlights the embossed foreground and background with base color.

Nagaada

Nagada, spelled mostly as Nagada is a huge drum which is played as bass instruments. Nagada was also used as a tool to help make announcements for kings in earlier times when there were no better means available to reach people so that people could hear the voice of the huge drums even at a distance and pay attention

Narasimha

Narasimha Is an avatar of the Hindu god Vishnu, who is regarded as the supreme God in Vaishnavism and a popular deity in the broader Hinduism.

Oras

In the haveli of Bikaner, Oras is the series of adjoining three room adjoining at the rear part of the Haveli. They are the main storage space in the haveli.

Panchayat

A village council.

Peti

A Box, trunk or a chest

Prasad

A devotional offering made to a god, typically consisting of food that is later shared among devotees.

Phool Sal

In the haveli of the Bikaner, the verandah opposite to the service bay, mainly used by women folks as a sitting area is called *Phool Sal*.

Puja

It is a Sanskrit word meaning the act of worship.

Rajput

A member of a Hindu military caste claiming the *Kshatriya* descent.

Rohida

Tecomella undulata is a tree species, locally known as Rohida in Urdu found in Thar Desert regions of India and Pakistan. It is a medium-sized tree that produces quality timber. Rohida wood is strong, tough and durable.

Sal

In the haveli of the Bikaner, a verandah formed at the far end of the *angan* and open towards the courtyard is called *Sal*

Sheesam wood

A slow-growing, hardy deciduous rosewood tree native to the India commonly known as North Indian Rosewood. Sheesham wood is durable and is very resistant to fungi.

Sunaro

The people who are sunar are called Sunaro. Sunar means Goldsmith.

Supari

A betel nut

Talwar

A sword, especially a type of saber.

Thalli

A metal plate on which Indian food is served.

Thandai

Thandai is an Indian cold drink prepared with a mixture of almonds, fennel seeds, magaztari seeds (watermelon kernel), rose petals, pepper, vetiver seeds, cardamom, saffron, milk, and sugar. It is native to India and is often associated with the Maha Shivaratri and Holi festival.

Usta

Usta is the community of the craftsman skilled in “*Usta Kaam*” craft. Craftsmen of the community has migrated from Multan in Pakistan to the Mughal court at Delhi and later, on being invited by Raja Rai Singh, to Bikaner

Vaishakha

Vaishakha is a month of the Hindu calendar. In the *Indian national calendar* Vaishakha is the second month of the year.

Vedic

Relating to the Veda or Vedas and it is the language of the

Vedas, an early form of Sanskrit.

Vedas

Vedas are a large body of knowledge texts originating in the ancient Indian subcontinent. The texts constitute the oldest layer of Sanskrit literature and the oldest scriptures of Hinduism.

Yagna/ Yajnas

A ritual sacrifice with a specific objective.

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Figure Reference

Fig.2.1_1. Earliest form of raised seating surface.

Source: <http://www.readingdesign.org/vernacular-furniture/>

Fig.2.1_2

Source: <https://pixabay.com/en/camel-sand-two-humps-resting-48445/>

Fig.2.2_1 Map of Rajasthan

Source Map: Wikimedia. URL: https://commons.wikimedia.org/wiki/File:Blank_Map_Rajasthan_state_and_districts.png

Fig.2.2_2 Map showing the Sub Regional Demarcations of Rajasthan. The selection of towns in each of the nine region of Rajasthan is based on their historic significance, Ruling clans & Towns and Dialect.

Source: Jain, Shikha. *Havelis : a living tradition of Rajasthan*. Shubhi Publications, 2004. Print. Haryana, India.

Fig.2.2_3 Map showing the geographical division of Rajasthan by Aravalli range.

Source: Mishra, N. V. *Rajasthan : Prehistoric and early historic foundation*. India Aryan Books International in Association with National Institute of Oceanography, 2007. New Delhi. India.

Fig.2.2_3 Map showing the Physiography of Rajasthan.

Source: Mishra, N. V. *Rajasthan : Prehistoric and early historic foundation*. India Aryan Books International in Association with National Institute of Oceanography, 2007. New Delhi. India.

Fig.2.2_4 Map shows the region affected with sand dunes.

Source: Mishra, N. V. *Rajasthan : Prehistoric and early historic foundation*. India Aryan Books International in Association with National Institute of Oceanography, 2007. New Delhi. India.

Fig.2.2_5 Map shows the climate classification of Rajasthan, based on Rainfall distribution

Source: Dr. Bhala, Ray. Lajpat (L.R.Bhalla), *Contemporary*

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Fig.2.2_6 A camel Graphic by Swiss designer & illustrator based in Istanbul, Tamer Koseli.

Source: <https://dribbble.com/shots/2544829-The-North-Face>.

Fig.2.3_1 Map of Rajasthan highlighting Bikaner district, Showing the Lat/Long of Bikaner city.

Source Map: Wikimedia. URL: https://commons.wikimedia.org/wiki/File:Blank_Map_Rajasthan_state_and_districts.png

Fig.2.3_2 Photograph of a painting showing the Karni Mata blessing Rao Bika.

Source: Photograph by author clicked at Junagarh fort, Bikaner city, Bikaner, Rajasthan.

Fig.2.3_3 Political map of Rajasthan in 1931 as Rajputana Agency under the British Empire (Reproduce from Rajasthan as a region, Vol.1, 1994.

Source: Jain, Shikha. *Havelis : a living tradition of Rajasthan*. Shubhi Publications, 2004. Print. Haryana, India. Pg.16

Fig.2.3_4 Map is showing the historical region of Bikaner, earlier know as **Jangladesh**. Which include district of Bikaner, Churu, Hanumangarh and Sri Ganganagar post independence of India.

Source Map: Wikimedia. URL: https://commons.wikimedia.org/wiki/File:Blank_Map_Rajasthan_state_and_districts.png.

Fig.2.3_5 Map showing the Bikaner district.

Source Map: Wikimedia. URL: https://commons.wikimedia.org/wiki/File:Blank_Map_Rajasthan_state_and_districts.png.

Fig.2.3_6 Map showing the Bikaner district and regions surrounding it.

Source Map: Wikimedia. URL: https://commons.wikimedia.org/wiki/File:Blank_Map_Rajasthan_state_and_districts.png.

Fig.2.3_7 Map of Bikaner District showings its eight Tehsil.

Source: Bikaner Tehsil Map, <http://www.mapsofindia.com/maps/rajasthan/tehsil/bikaner.html>.

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Fig.2.3_8 Map is showing the history of growth of Bikaner city with time.

Source: Choksi, Manan. *Traditional houseform in Bikaner, Rajasthan : a study*. CEPT University, Ahmedabad, Gujarat, India. 1984.

Fig.2.3_9 Bikaner city map showing walled city.

Map Traced by: Sikander Usta Jr. D/Man and checked by: H.D.Suthar Sr. Draughts Man.

Source: Gopal Singh Chouhan, Lokayan Santhan.

Fig.2.4_2 Photograph of early time of Kote Gate, Bikaner walled city, Bikaner.

Source: Rathore, Abhinay. "Bikaner (Princely State)." *Rajput Provinces of India*, <http://www.indianrajputs.com/view/bikaner>.

Fig.2.4_3 Road map of Bikaner showing the boundary of Walled city of Bikaner.

Source: Bikaner Tourist Map - Bikaner • Mappery, <http://www.mappery.com/Bikaner-Tourist-Map>

Fig.3.1_1 Photograph showing the Heir-loom objects of Bikaner state(under King monarchy).

Source: Photograph clicked by author at Junagarh fort.

Fig.3.5_1 Men seating on paata playing cards and socializing.

Source: Photograph by Aziz Bhutta, Bikaner.

Fig.3.5_7 Paata used during religious ceremony.

Source : Dr. Joshi, Rajendra.

Fig.3.5_8 A Paata used during wedding ceremony.

Source: Photographer Aziz Bhutta.

Fig.3.5_10 Celebration of *Narasimha Jayanti*.

Source: Dr. Joshi, Rajendra.

Fig.3.5_11 Musical Jam playing Harmonium, Dhol, Nagada and reciting folk song, seated on Paata, during Holi.

Source: Photographer Aziz Bhutta.

Fig.3.5_12 People seated on *Paata*, making *Thandai* during Holi as tradition.

Source: Photographer Aziz Bhutta.

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Fig.3.5_13 & Fig.3.6_14 Photographs shows the play performed on *Paata* during Holi.

Source: Photographer Aziz Bhutta.

Fig.3.5_17 Idol of Gangaur, depicting Lord Shiva and Goddess Parvati.

Source: www.festivalsofindia.in/gangaur/History.aspx.

Fig.3.6_2 Schematic drawings showing zoning of haveli of Bikaner.

Source: Choksi, Manan. *Traditional houseform in Bikaner, Rajasthan : a study*. CEPT University, Ahmedabad, Gujarat, India. 1984.

Fig.3.6_3 Schematic drawings showing zoning of semi Public space of haveli of Bikaner.

Source: Choksi, Manan. *Traditional houseform in Bikaner, Rajasthan : a study*. CEPT University, Ahmedabad, Gujarat, India. 1984.

Fig.3.6_5 Schematic drawing of plan showing zoning of diwankhana(below), and Schematic drawing of Section showing zoning and ventilation in diwankhana (above)

Source: Choksi, Manan. *Traditional houseform in Bikaner, Rajasthan : a study*. CEPT University, Ahmedabad, Gujarat, India. 1984.

Fig.3.6_6 Schematic section (above) and schematic plan (below) showing the *Barsali* and position of *Paata*(highlighted in dark red) in *Barsali*.

Source: Choksi, Manan. *Traditional houseform in Bikaner, Rajasthan : a study*. CEPT University, Ahmedabad, Gujarat, India. 1984

Fig.3.6_7 Fig.3.6_7 Schematic drawing of plan (middle) & section (top) showing zoning of private area of the haveli of Bikaner and Schematic plan of haveli(bottom) showing the basement area

Source: Choksi, Manan. *Traditional houseform in Bikaner, Rajasthan : a study*. CEPT University, Ahmedabad, Gujarat, India. 1984.

Fig.3.6_9 Schematic drawing of plan (top) showing the relation of Angan to surrounding area, Schematic drawing of plan (bottom) showing the zoning of service bay adjoining to the angan.

Source: Choksi, Manan. *Traditional houseform in Bikaner,*

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Fig.3.6_10 Schematic drawing of plan (bottom) and section (top) shows the store and water place in service bay and schematic section (middle) shows the kitchen.

Source: Choksi, Manan. *Traditional houseform in Bikaner, Rajasthan : a study.* CEPT University, Ahmedabad, Gujarat, India. 1984

Fig.3.6_11 Schematic drawing of plan showing the puja room.

Source: Choksi, Manan. *Traditional houseform in Bikaner, Rajasthan : a study.* CEPT University, Ahmedabad, Gujarat, India. 1984

Fig.3.6_13 Paata used during religious ceremony.

Source : Dr. Joshi, Rajendra.

Fig.3.6_14 Schematic drawing of plan showing the zoning of sal and its relation to angan in front and Ora in rear.

Source: Choksi, Manan. *Traditional houseform in Bikaner, Rajasthan : a study.* CEPT University, Ahmedabad, Gujarat, India. 1984

Fig.3.6_15 Schematic drawing of plan (bottom), longitudinal section (middle) and transverse section (top) show the zoning of ora's (store room) in the rear part of the haveli of Bikaner.

Source: Choksi, Manan. *Traditional houseform in Bikaner, Rajasthan : a study.* CEPT University, Ahmedabad, Gujarat, India. 1984

Fig.3.6_17 Schematic drawing of second floor plan showing the bedrooms.

Source: Choksi, Manan. *Traditional houseform in Bikaner, Rajasthan : a study.* CEPT University, Ahmedabad, Gujarat, India. 1984

Fig.3.6_18 Schematic drawing of plan (bottom) and section (top) showing the zoning of bedrooms on first floor, and highlights (in red) the most ornate room (Mahal/Mehfil room) inside out of the haveli.

Source: Choksi, Manan. *Traditional houseform in Bikaner, Rajasthan : a study.* CEPT University, Ahmedabad, Gujarat, India. 1984

Fig.3.6_21 Schematic diagram of first floor plan(bottom) and second floor plan (top) showing first and second floor terrace.

Source: Choksi, Manan. *Traditional houseform in Bikaner, Rajasthan : a study*. CEPT University, Ahmedabad, Gujarat, India. 1984

Fig.3.6_23 Schematic drawings of plan(bottom) and section (top), showing the placement of Paata outside the haveli.

Source: Choksi, Manan. *Traditional houseform in Bikaner, Rajasthan : a study*. CEPT University, Ahmedabad, Gujarat, India. 1984

Fig.4.3_1 It is a carpenter pencil, the oldest known pencil in existence. Now it is a part of the Faber-Castell private collection, GmbH & Co., Germany.

Source: Pencil Photo Gallery, www.pencilpages.com/gallery/oldest.htm.

Fig.4.3._2 Staedtler Noris Pencil

Source: "Staedtler Noris Pencil." *Cultpens*, www.cultpens.com/i/q/SD03748/staedtler-noris-pencil.

Fig.4.3_3 Staedtler Mars Technico Designer's Mechanical Pencil

Source: Cooksongold.com, www.cooksongold.com/Jewellery-Design-Stationery/Staedtler-Maas-Technico-Designers-Mechanical-Pencil-With-2mm-Hb-Lead-pr-code-997-464.

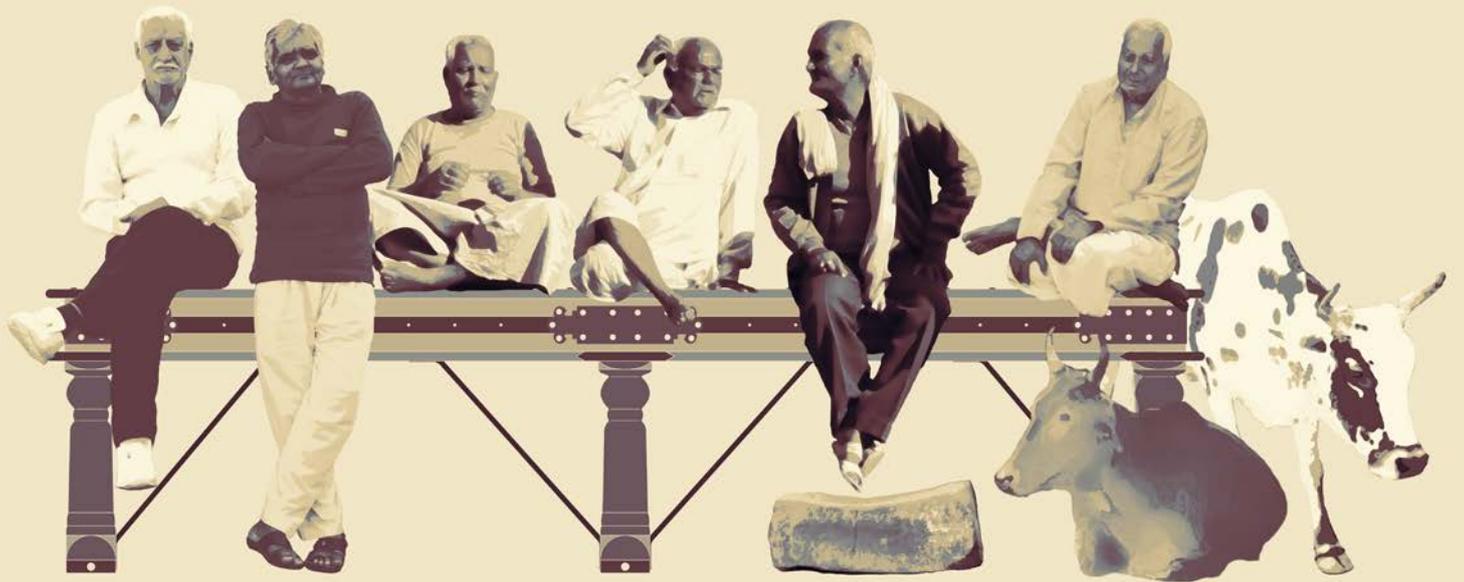
Fig.4.3_4 Photograph showing people seating on metal Paata.

Source: Photograph by Aziz Bhutto.

Cover Page: Lawrence School, Bikaner," a silver gelatin photo, c.1900

Source: www.columbia.edu/itc/mealac/pritchett/00routes-data/1400_1499/rajputforts/bikaner/lawrenceschool1900.jpg.

All the photographs and illustrations are by the author and sketches by Kush Bansal.



FORMATION OF RAJASTHAN POST INDEPENDENCE

<http://www.rajras.in/index.php/rajasthan-state-formation-post-independence/>

We live in a material age, we have colossal material history and heritage. When we look back to history, from earliest times human has his root grounded with material and objects that he owns to encapsulate their identity. With Passage of time human started making object for his survival and comfort. The artefacts, art objects and such other items of material culture are an intergral part of other aspects of a culture .

“Our evolution as cultural being has an increasing dependence on object for survival and comfort.

Among those objects and artefacts, furniture is one of the object of concern, as there are in constant interaction with man physically and mentally. And they evolve with cultural and social know-how of a community. And thus the human interaction with the furniture became a ritual of an individual for various activity. Thus a furniture is a physical manifestation of indigenous, social, cultural, environmental and economics constraints, and forms an important part in the evolution of mankind.

So these vernacular furniture becomes essential to study from apoint of view as forms and function, source of invention, question of diffusion and their relation to social organization, religion and ceremonial practices giving insight into many socio-cultural rituals and narratives and in understanding the associative role of furniture in lives of people and interactivity between user and surrounding in social and cultural context.

A social culture influences the minds of an individual and thus whatever he creates and surrounds himself with is also under similar influences and in turn the individual minds creates a social culture. This cycle is simultaneous, but for our understanding, it could be said that individuals are collectively seen as the social personae when they express the need for a physical and emotional comfort through a set of ritualized actions which involves furniture.

With on field documentation and conversation with locals, through this research study, I gain a lot of insight on the associative role of furniture in lives of people and interactivity between user and surrounding in social and cultural context.

A study of all aspect of the material side of people's life is of great importance.

It is of great interest from such points of view as forms and function of artefacts, sources of invention, question of diffusion and their relation to social organization, religion and ceremonial practices.

It is useful in anthropological inquiry of a communities.

The artifacts, art objects and such other items of material culture are an integral part of other aspects of a culture . Taking all the material items of a culture together make the material culture of a community.

There may be considerable similarities in form and function of material items from place to place, in a particular community

There may also be difference in form and function of certain material items from place to place, in a particular community, and such local differentiations are largely due to cross-cultural contact and acculturation.

It is assumed that the material culture of a community may be the same in respect of the various items which comprise the material culture in different localities. But under geographical conditions and acculturation, there appears to be spectacular changes and discordance in form and function of the material items which constitute the material culture of a particular community.

The differences at the material aspects of culture are eventually replaced by a unity of beliefs and aspiration which gives to the community in question a character of its own.

The study of the material culture of a society reveals unity in diversity in its local system and culture pattern.

MATERIAL CULTURE of Orisan Tribals
- Nityananda Patnaik

we humans have an amazing ability to innovate. Nowhere is this more apparent than in the diverse range of handmade or vernacular objects and artefacts, human made for its survival and comfort.

Vernacular furniture is a subjects that provides a window on the lives and tradition of the indigenous people of our community, and in so doing creates a mirror that refelects our own experience.

HANDMADE HOUSES AND OTHER BUILDING

The World of Vernacular Architecture

- JOHN MAY. /

The seed of this compilation was sown with a simple thought - 'what is the relevance of vernacular tradition in contemporary life' Can they be merged with needs of today to make a sustainable living environment. (FOR PREFACE)

Vernacular tradition are a creative process developed by the interpretation of past knowledge and experience, negotiated, and adapted by generation to meet the needs and challenges of time.

Vernacular architecture is a physical manifestation of environmental, social, and economics constraints, and forms an important part in the evolution of mankind.

The value and significance of the vernacular has only been organized in the last 25 years, and extensive research has been undertaken for its doucmentation.

Simultaneously, there has been a shift in understanding of architecture as part of a larger culture landscape rather than a from of individualistic expression.

Vernacuair built form, which has been developed by the community in response to environment and culture, has been brought under the gamut of "built heritage"

The aim of this book is not to glorify the past or romanticize the vernacular but to propogate the idea of engaging with vernacular traditions in a critical manner, taking valuable knowledge from the past and integrating it with what is equally valuable in modern technology so as to create development that are contemporary and modern yet built upon the locally distinctive traditions and fit into the culture

and ecological context effortlessly.

The purpose of this book is to recognize that vernacular traditions have an important contribution to make to the development of sustainable future built environment.

The built vernacular heritage is important, it is the fundamental expression of the culture of a community, of a community, of its relationship with its territory and, at the same time, the expression of the world's culture diversity.

“Vernacular traditions are a dynamic and creative process through which people, as active agents, interpret past knowledge and experience to face the challenges and demands of the present. Tradition is an active of transmission, interpretation, negotiation, and adaptation of vernacular knowledge, skills, and experience.”

- Asquith and Vellinga (2006)

More important than static preservation of vernacular architecture is understanding the building tradition, knowledge systems and skills that have continuously evolved to adapt themselves to the changing environment and yet have remained distinctive to a specific place (Oliver 2003).

The dynamic nature of the vernacular traditions allows it to constantly evolve and adapt to the changing socio-cultural environment. (**CHAPTER 4 - 4.5**)

Objects and artefacts are a physical manifestation of the need and aspiration of a society and its determination by the environmental, social-cultural, and political climate of a place or a region.

VERNACULAR TRADITION Contemporary Architecture
- Aishwarya Tipnis

Abhinaya
Angan
Bari
Barsali
Bhavar Dhol
Bhujee
Berisal
Chaitra month
Chandras
Chatra
Chattari
Chavar
Chowks
Daitya
Darjee (tailor)
Darbar
Dere
Diwankhana
Dhal (sheild)
Falgun month
Ganesh Sthapana
Gangaur
Gesso
Goonjal
Gond
Gumaharias
Gurjaro
Guwad
Harijan
Haveli
Holi
Janladesh
Jarokhas
Karni Mata
Karand
Katha Vanchan
Kherad
Khuniyu
Lohar
Mahals
Mangal Phera
Marusthali
Matka
Matti
Mehfil Hall
Mohallas
Monavat

Nagada
Narasimha
Oras
Paata
Paga
Panchayat
Peti
Prasad
Phool Sal
Puja
Rajput
Rohida
Saal-Chur
Sal
Sheesam wood
Sunaro
Supari
Taan
Talwar (sword)
Takht
Thalli
Thandai
Ustan
Vaishakha month
Vedic/Vedas
Yajna/Yagna.

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