

Maps and Map-making at the Amber-Jaipur Suratkhana in the 18th Century

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The *suratkhana** was the centre for production, collection and maintenance of paintings of the Kachhwahas, the rulers of the kingdom of Amber. An extensive perusal of the records of the *suratkhana* shows that it was responsible for all visual needs of the state. Not only paintings and portraits, but maps and plans for military campaigns, engineering and civil works, building and construction were prepared by the *suratkhana's chateras* or artists. It is these maps and plans that are the focus of this paper. In the various sections, I describe how maps were preserved in the *suratkhana*, the administrative and military uses of maps, the significance of cartographic practices as powerful symbols and the role of the artist in map-making. The conclusion discusses the varied skills of the *chatera* and emphasizes that he was not only an artist but also a visualizer who served the pictorial needs of the state whenever required.

I

The *suratkhana* was a part of the system of workshops and store houses, called *karkhanas* that were organized to look after the vast needs of the royal household. These *karkhanas* were engaged mainly in the production of luxury goods and also included stores of articles bought for royal consumption. It is said that the Kachhwahas modeled their *karkhanas* on the pattern established by the Mughals,¹ and Sawai Jai Singh (r.1699-1743) has been credited for the adoption of the Mughal system at Amber-Jaipur.² However, it is now apparent that such a system was already in place prior to his accession. In various reports and letters exchanged between the officials of the Amber government with the ruler and amongst themselves, various *karkhanas* have been mentioned from the time of Maharaja Ram Singh (r.1667-1688). For example, the *kirkirakhana* (store of jewellery and other precious objects)³, *khushbookhana* (workshop of scents and perfumes)⁴, *tambulkhana* (department of betel)⁵, *patarkhana* (department where girls from a young age were trained for royal service,

*Since author has used technical terms in her paper, the diacritical marks have not been used to avoid confusion – Editors.

dancing and singing)⁶, *shikarkhana* (department looking after the needs of hunting)⁷ and the *pothikhana* (library)⁸ have all been mentioned in *arzdashts* (memorandum from a subordinate to a superior) sent by various officials to Ram Singh I. Pre-1700 administrative records of various *karkhanas* are also available at the Rajasthan State Archives in Bikaner.

The *suratkhana* was looked after by a *darogha* (superintendent), a *tehvildar* (storekeeper), *mushrif* (accountant) and few *sarbarakaras* (attendants).⁹ The *darogha* worked directly with the artists and was responsible for handing out work to them. He maintained day-to-day records of the amount of work completed. At the end of the day he would collect the work completed by the artists and hand it over to the *tehvildar*. The *tehvildar* was responsible for the disbursement of the money and the raw materials required for the smooth functioning of the *suratkhana*.¹⁰ As the store-keeper, he was also responsible for the safe storage of the paintings. New works, paintings received as gifts etc. entered the *suratkhana* under his charge. The stores were checked regularly, and inventories were made of their holdings. These inventories appear to have been made under the supervision of the *darogha* by the *mushrif*, the accountant who functioned as an auditor; his name is usually pre-fixed in the inventory records with the term 'likhe' (written by). The *darogha*, *tehvildar* and *mushrif* were *mahinadar* employees of the state or those whose salaries were paid on a monthly basis.¹¹

The officials of the *suratkhana* maintained extensive records of the workings of the workshop. They kept accounts of the expenses incurred and made periodic inventories of the holdings of the *suratkhana*. Many such documents, like the *jama-kharcha* (account of expense) and *roznama* (daily register), have survived and help in providing us insights into the functioning of the *karkhana*. Though these records can be used in a number of ways, one of the most revealing sections of the *jama-kharcha suratkhana* records are the periodic inventories of the paintings present. Not only do these records tell us about patronage, but they also allow us to learn about the range of paintings present in the royal collection at the time the inventory was made.

When periodic inventories were made, the paintings in the *suratkhana* were listed under a series of categories. Here, the paintings were primarily organized according to subject and not by date, region, artist, size or quality. Inventory categories include 'paintings of deities', 'portraits of rulers', 'nobles', 'foreigners', 'women', 'birds and animals', etc. When a new painting was acquired, it was added to the section of the 'category' to which it belonged.

One of the categories mentioned in the inventories is *chadaritrahaki pat kapdaupari* or *chadaritrahaki*, i.e. 'maps on cloth'. The earliest inventory of the *suratkhana* from 1702 lists 12 maps.¹² These included maps of places like Assam, Guhwati, the mountains of Kumaon, Dwaraka, the fort of Karnatak and the fort of Seba.¹³ The width (*arajgaz*) and length (*tulgaz*) of maps is also mentioned. The inclusion of maps as a separate category in the inventories of the royal painting workshop then makes us re-evaluate the relationship of maps to art in the pre-colonial context. The debate between maps as 'art' or 'science' is a long drawn one.¹⁴ The evidence

in the present setting shows that, at least in 18th century Amber-Jaipur, maps were under the realm of 'art' – produced, collected and maintained by the *suratkhana*. It shows that maps along with their utilitarian purposes were also considered a form of a visual representation along with other kinds of objects which were painted.

II

It is well acknowledged that the Kachhwaha collection of maps is the world's largest and best preserved group of indigenous South Asian maps.¹⁵ Susan Gole has remarked that from the historical maps which have survived it seems that maps were produced more frequently in Jaipur than any other place.¹⁶ The Maharaja Sawai Man Singh II Museum has more than 200 maps, plans and architectural drawings in its collection apart from 372 maps and plans in the Kapadwara collection of the erstwhile royal family.¹⁷ Through the records of the *suratkhana*, it is now possible to

give a definitive reason for the survival of cartographic material at Jaipur. It was Sawai Jai Singh's patronage and special interest in maps and map-making which led to their preservation.



Fig.1 : Equestrian portrait of Maharaja Sawai Jai Singh, early 18th century, Amber, 37.6x30.5 cm, Victoria and Albert Museum, London, IS 79.1990

Sawai Jai Singh was one of the most dynamic personalities in 18th century India in his role as not only an influential Mughal noble but also a highly regarded independent Rajput king (Fig.1). In the political climate of the times, Sawai Jai Singh took the opportunity to establish his autonomy at Amber-Jaipur, while maintaining an outward show of loyalty to the Mughals. The founding of a new capital in 1727, named after him was one of the most visible sign of the re-ordering of his kingdom.¹⁸ The maps and plans related to the construction and planning of Jaipur attest Sawai Jai Singh's efforts at conceptualizing a previously uninhabited space as a symbol of his pre-eminence

(Fig.2). These maps and plans were not only utilitarian for construction and planning but a conscious effort was made to preserve them. They were to serve as a testimony in the showing the stages of how desolate lands were made prosperous through the efforts of the illustrious Kachhwaha ruler.

In 1737, a huge project was undertaken at the *suratkhana* in which almost 300 maps, plans and other kinds of cartographic drawings were repaired and conserved.¹⁹ A look at the list of these maps and plans gives an idea not only about the range of cartographic

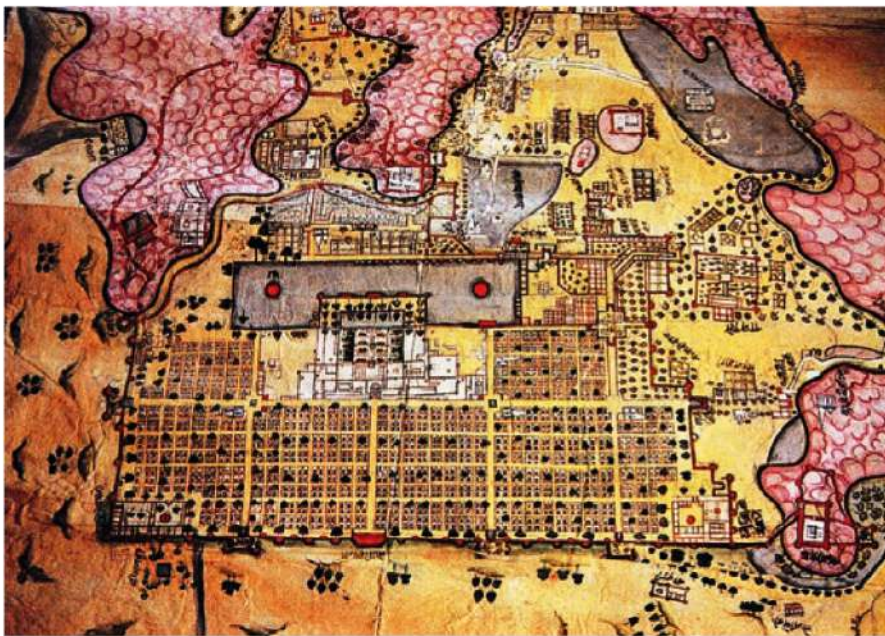


Fig.2 : Detail from a map of Jaipur, first half of the 18th century, MSMSII Museum

material present in the Kachhwaha collection at the time but also throws light on the working of the atelier. The chief aim of the 1737 conservation project was to make the maps sturdier and more durable. These maps, which were made on paper were now lined with cloth. Some larger maps which ran into a number of sheets were collated and put together on a single length of cloth. Other maps were pasted on a soft cloth to preserve them. Still others

were lined with a kind of wax-cloth called *momani*. The paper of some maps had crumpled over time with use and misplacement. These maps were restored and straightened up.

The list of the maps which were preserved in 1737 is dominated by maps and plans of Sawai Jai Singh's new capital city of Jaipur and its surrounding areas. They show that extensive surveys and planning were carried out when Jaipur was built. One of the major concerns for the successful planning of a new city was the supply of its water needs. For this reason Jai Singh ordered the construction of a dam on the Darbhavati rivulet which opened into the Mansagar.²⁰ Five maps of the Darbhavanti river were preserved by the *suratkhana*.

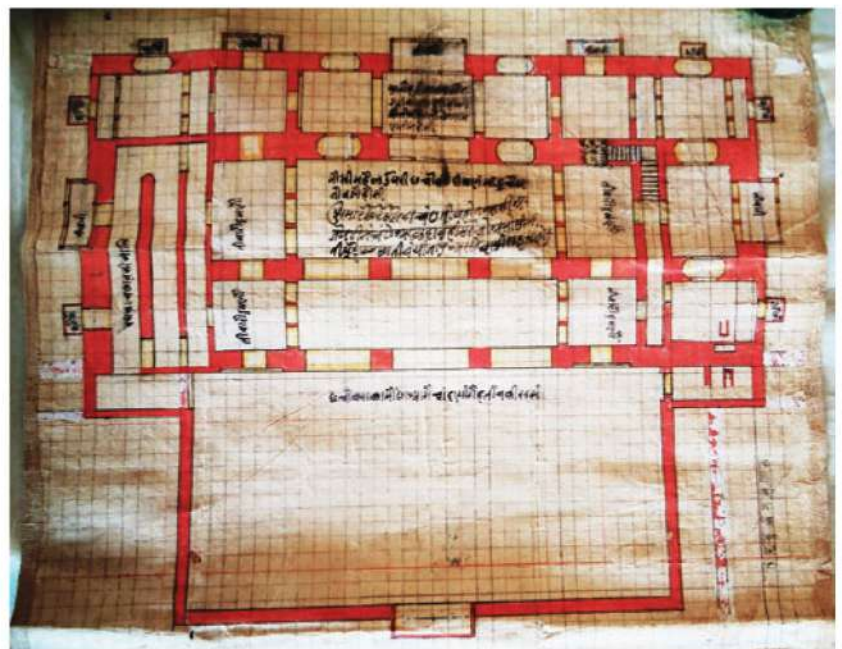


Fig.3 : Detail from a map of the seven-storied palace at Jaipur, early 18th century, MSMSII Museum, Map no.7

Many plans are of various structures and buildings within the palace complex in Jaipur like the Jai Niwas, three drawings of the *Satkhanya* or the seven-storied palace which is more popularly known as the Chandra Mahal (Fig.3) and the Sarvato Bhadra or the Hall of Public

Audience. Apart from the palace complex, maps of the city of Sawai Jaipur and other locations like *Paundarikjika*bagh, the *havelis* of Jaipur and its markets were also prepared and are mentioned to have been conserved in the 1737 project. In order to secure the new capital, Sawai Jai Singh had constructed the two forts – Sudarshangarh (Nahargarh) and *Chilkatola* (Jaigarh) overlooking the city of Jaipur. Maps and plans of the two forts, their palaces and *zenana* quarters were also repaired.

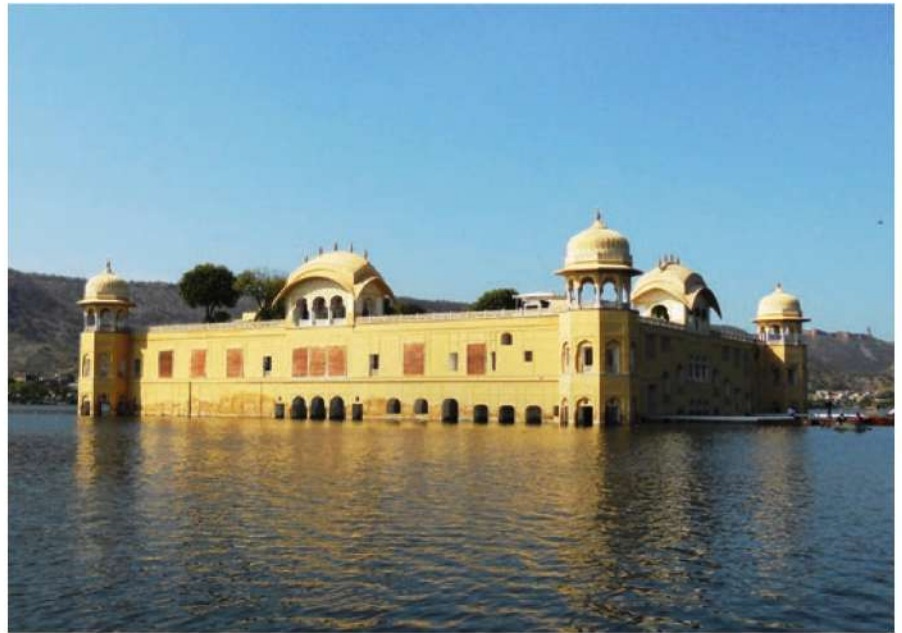


Fig.4 : Jal Mahal in the Mansagar Lake, Jaipur

Some of the maps in the list help in the dating of buildings of Jaipur. One such structure is the Jal Mahal or the water palace, built in the center of the Mansagar lake just outside the city of Jaipur on the road to Amber (Fig.4). The Jal Mahal is a pleasure palace built in the middle of a lake in keeping with established Rajput tradition. Sachdeva and Tillotson rightly remark that even though sometimes the building of the Jal Mahal is dated as late as 1775, it is likely that this was constructed by Sawai Jai Singh around 1734. They support their argument with a drawing in the Kachhwaha collection that is consistent in style with other drawings from the Sawai Jai Singh period.²¹ Their hypothesis is confirmed by the several plans of the Jal Mahal

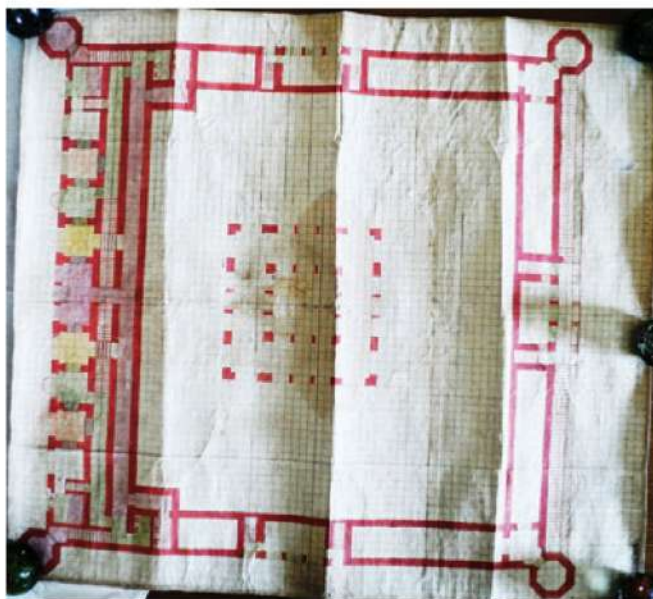


Fig.5 : Plan of the Jal Mandir in the Mansagar, Jaipur, c.1730, 65.5x59 cm, MSMSII Museum, Map no.3

or Jal Mandir in the Mansagar (Figs.5-7), as it is called in the list of the maps conserved at the *suratkhana* in 1737. It seems that there were drawings of the Jal Mahal structure itself and one of a *baradari* planned in the Jal Mahal complex (Fig.8). The existence of drawings and plans of a building do not necessarily mean that it was already built but they go on to show that by 1737 a palace in the middle of the Mansagar had been planned by Sawai Jai Singh.

The maps of towns and cities other than Jaipur were also present in the Kachhwaha collection at this time. These included maps of Sanganer, Dausa, Tonk,

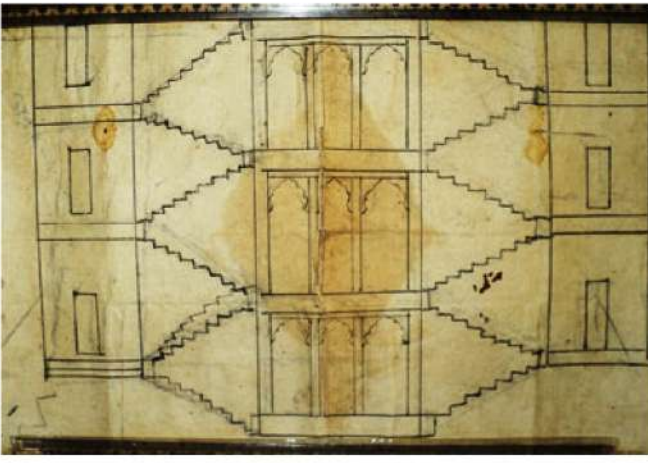


Fig.6 : Plan of the Jal Mandir, Jaipur, c.1730, 38x23.5 cm, MSMSII Museum, Map no.2

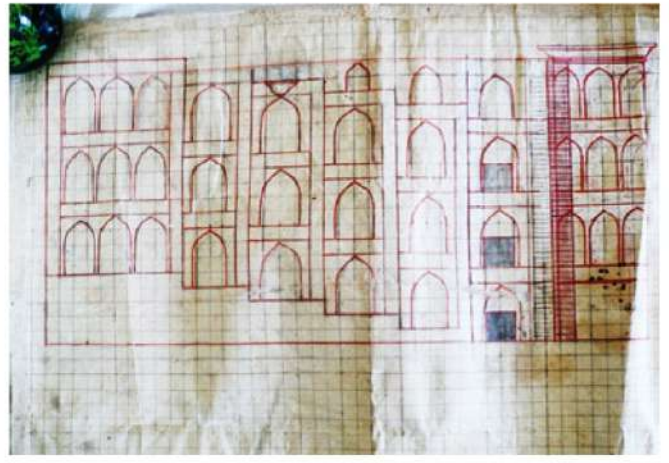


Fig.7 : Plan of the Jal Mandir, Jaipur, c.1730, 32.4x44.5 cm, MSMSII Museum, Map no.1

Chatsu, Manoharpur, Malpura, Uniara, Sambhar, etc. Most of maps are of towns in the vicinity of Jaipur and some were being administered by the Kachhwahas. It is most likely that these maps were made for better governance.²² Amongst the maps of Mughal cities were maps of Srinagar, Akbarabad, Shahjahanabad, the Chandini Chowk in Dilli and the palace complex at Shahjahanabad. In the course of the planning of the observatory at Delhi, drawings of the astronomical instruments must have

been prepared. These, called *jantar*, were also carefully preserved in 1737 by the *suratkhana*.

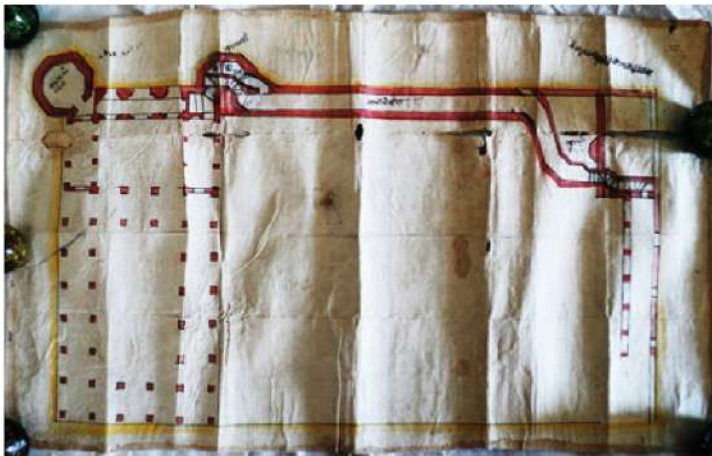


Fig.8 : Plan of the baradari in the Jal Mahal, Jaipur, c.1730, 39.4x65.6 cm, MSMSII Museum, Map No.6

The massiveness of the project can be gauged by the fact that additional workforce was required to complete this task. Two kinds of artists were employed at the *suratkhana*. Some artists were on the permanent pay roll of the state and referred to by the term '*chakarsarkarka*' (servant of the state). Others, called *rozindars*, were employed from time to time on a daily-wage basis. Many *chateras* were hired to work on this assignment.

Zinda *chatera* joined the services of the *suratkhana* on *Budi 1, Saavan* (July-August), 1736 and was paid 25 *rupiya 2 anna* for 67 days.²³ Amongst the other *rozindars* working on this project were Ramkishan, Deepu, Tulcha and two artists by the name of Chajju. The artists were employed on different rates of payment. While Zinda *chatera* and Ramkishan *chatera* were paid at the rate of 5 *taka* per day; Deepu, Tulcha and the two artists called Chajju were paid 4 *taka* per day.²⁴ The hiring of *rozindar chateras* for a short period not only points to heightened activity in the royal *suratkhana* but also shows the availability such labour in the bazaar.

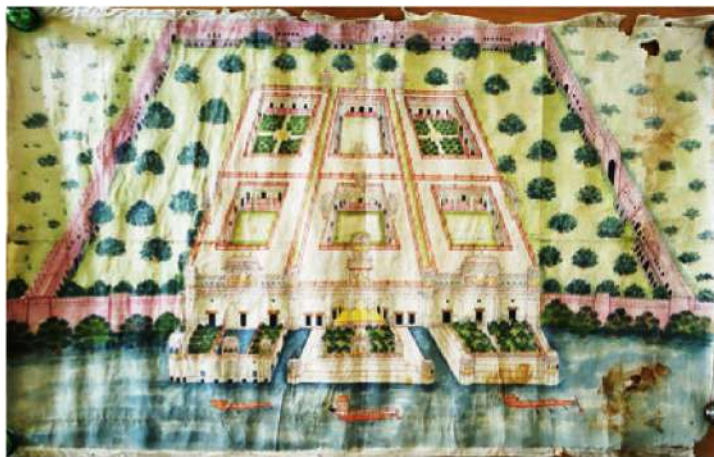


Fig.9 : Map of the kunj on the banks of the Yamuna in Vrindavan, c.1800, Jaipur, 87x130.5 cm, MSMSII Museum, Map no.45



Fig.10 : Map of Sanganer fort, Jaipur, c.1800, 40.7x46 cm, MSMSII Museum, Map no.72

A second instance of the preservation of maps is seen from the reign of Maharaja Pratap Singh (r.1778-1803). In 1802, about twelve maps and plans that were probably scattered were brought together in the *suratkhana* through Dhabhai Lalram.²⁵ These included maps of the Madhovilas in the palace complex of Jaipur, a drawing for a new structure being planned in front of the Madhovilas, a plan for a new bower made by the Maharaja on the banks of the Yamuna and its surrounding woods and valley (Fig.9), a map of the fort at Sanganer (Fig.10), a drawing of the Moti Burj, a plan of the Lunkaran *kabagh*, two maps of Amber etc.

III

In the Mughal world, maps were used for various administrative purposes. They were used by the central administration to keep a check on the provinces, their development and the constructions being made by various nobles. In March 1692, Maharaja Bishan Singh of Amber, who was the *faujdar* of Mathura, was ordered by Aurangzeb to send a map of the house of Hari Singh as it had been reported by Shafi Khan that Hari Singh had built a fortress instead of a house at Lamba.²⁶

It seems that it was mandatory for Mughal *mansabdars* to send maps of the forts and regions they conquered for the Mughal emperor. It is known that after the fall of Purandar and the signing of the subsequent treaty in 1665 with Shivaji, Mirza Raja Jai Singh (r.1622-1667) of Amber sent a report to Aurangzeb along with a map.²⁷ A number of maps of forts were sent to Aurangzeb during the course of Maharaja Bishan Singh's (r.1688-1699) campaign against the Jats from 1690 to 1694. Maps were used to indicate the progress and strategy of the Mughal forces. They not only marked the forts of the Jats but also depicted where the various contingents of Mughal troops were stationed.²⁸ In a report of July, 1691, Kesho Rai, the *wakil* (representative) of Maharaja Bishan Singh at the Mughal court informed that Aurangzeb was much pleased and took great interest in the maps of Sonkhar

and Ucchain which had been recently conquered by the Maharaja.²⁹ Similarly, in November 1692 Meghraj reported that the Mughal Emperor was very pleased to see the maps of the fort of Pinghor and Kasot.³⁰ In an undated report, in the course of the above campaign, Pancholi Jagjiwan Das also reported to Maharaja Bishan Singh that Aurangzeb took keen interest in the map of Awayar which was sent subsequent to the fort's capture.³¹

Thun was one of the stronghold of the Jats who were rebelling against the Mughals. In 1716, Sawai Jai Singh had led Mughal forces to suppress this rebellion but this siege was unsuccessful. On the second attempt, in December 1722 the fort of Thun was captured by Sawai Jai Singh with the help of Badan Singh who had pointed out the weaknesses in the Jat defences.³² The Mughal emperor, Muhammad Shah was very pleased with Sawai Jai Singh and ordered that a sketch of the fort of Thun should be sent to him.³³ This task was assigned to Dwarak *chatera*, who had been employed at the *suratkhana* as a *rozindar* on numerous occasions to make maps. The records state that in December 1722, Dwarak was supplied with *man singhi* paper and colours for making the map of Thun.³⁴ Dwarak's skills in map-making must have been exemplary as he was given the task of preparing a map to be sent to the Mughal emperor. We know of two extant maps of Thun.³⁵ They have been described as akin to large sized paintings of forts depicting the position of troops and cannons.³⁶ It is possible that Dwarak made multiple copies of the fort at Thun, two of which have survived in the Jaipur collection.

We know that Dwarak was an artist from Amber and he was engaged by Vidyadhar, celebrated as the 'architect' of Jaipur,³⁷ in 1721 to make a map of the kingdom of Amber for which he was paid 3 *rupiyaaurangzebi*.³⁸ Again in 1725, Dwarak was employed to make a map of Alwar for which *man singhi* paper was issued.³⁹ This was the year when the *jagir* (land whose revenue was granted in lieu of salary to a Mughal *mansabdar*) of Ali Amjad Khan Koka in *pargana* (administrative unit consisting of a number of villages) Alwar were transferred to Sawai Jai Singh on *ijara*.⁴⁰

It seems that Dwarak's work was much appreciated. In fact in the first reference to this artist we are told that when Dwarak came to the Amber court, in 1719, he was presented with a shawl worth 6 rupees. His reputation evidently preceded his arrival. Again in the same year, he was given a cash award of 35 *rupiya*.⁴¹ Dwarak was at least employed till 1742 at the *suratkhana*, when he was engaged in repairing a portrait of Qamar-ud-din Khan, the founder of the state of Hyderabad.⁴²

The *suratkhana* records provide evidence that an artist was provided with travel expenses when he was sent to far away regions to make maps. In *Paush* (November-December) 1745, on the orders of Maharaja Ishwari Singh (r. 1743-1750) Pohkar *chatera* was sent to Bundi to make a map of the region. He was paid fifteen rupees as *raha-bhada* (travel expenses) and given five rupees as *inam* (for his personal expenses).⁴³ This was the time when Ishwari Singh was supporting the cause of Dalel Singh for the Bundi throne against Ummed Singh.⁴⁴ Following the death of Sawai Jai Singh, Ummed Singh was joined by Durjan Sal Hada (the Maharao of Kota) and they laid

siege to Bundi in July, 1744. Dalel Singh was defeated and the Bundi campaign was placed under the command of Raja Ayamal Khatri, a senior noble of Jaipur who secured Maratha aid for Dalel Singh. Ummed Singh, on the other hand was joined by the rivals of Ishwari Singh – Abhai Singh of Jodhpur and Maharana Jagat Singh of Mewar. Ayamal Khatri was successful diplomatically and in January 1745, on his way back stormed and plundered Kota.⁴⁵ It seems that it was in the preparation for this campaign that Pohkar had been sent to make a map of Bundi.

IV

While on one hand maps were important tools of governance, on the other hand they were also highly symbolic in nature. In the recent years, it has been realized that maps are not unquestionable 'scientific' or 'objective' creations⁴⁶ but possess "fluid, ambiguous, highly partial and persistently ideological meanings."⁴⁷ Like art, they are a way of looking at the world.⁴⁸ It has been pointed out that the meaning of maps is not fixed by their makers. Rather they are brought to life and given meaning by their readers, in accordance with the conventions of particular discourses.⁴⁹

Maps signify, "an authoritative, ontological power: simply drawing the world as it is, as it should be, as it cannot be other than it is depicted...."⁵⁰ The authority of maps is actually the authority of the institutions who claim their authoritativeness.⁵¹ It is a complex device which is used as a tool of power by the state to impose a vision of the world upon society at a given time and place. There are "embedding values, ideology and subliminal meaning in what seems to be an objective statement of the world."⁵² It must be noted that the physical relationship of an individual with the map is a close one. It is the physical relation of the individual to a map which allows him to hold and examine it closely, thereby shortening space and bringing distant places into proximity with the viewer. The viewing of a map is an act which entails the use of "intellectual appropriation, an act of discipline that reconfigures land as territory."⁵³ It is this symbolic act of appropriation of land which is signified when after a conquest, a map depicting the land and the forts was sent to the Mughal Emperor along with other reports. As the nobles were fighting wars and conquering territory on behalf of the Emperor the handing over of a map of the conquered region meant that the noble had given up any claims to the conquered land. They literally handed over the land in the form of a map.

Keeping the above perspective in mind it is noteworthy that maps were also received as gifts by the Jaipur rulers. In 1726, a map of the Deccan was received as a gift from the *diwan* (revenue minister) of Aurangabad by Sawai Jai Singh.⁵⁴ In 1792, a map of Udaipur was presented in *nazar* (customary offering) by Udairam *chatera* to Maharaja Sawai Pratap Singh.⁵⁵

The records often mention the value or price of a paintings and maps in their inventories pre-fixed by the term "*kimati*". These valuations point to the relative worth of various paintings and make it possible to reasonably speculate on why certain

paintings were accorded a high price. The highest valued map in the inventories of the 18th century is the fort of Seba at a *kimat* of 80 rupees, a very high sum at the time. A look at the map tells us that it shows the siege of Purandar, a very significant achievement in the history of the Kachhwahas (Fig.11).⁵⁶ The defeat of Shivaji, ruler of the Marathas, was one of the crowning achievements for the Mughals. It was under the leadership of Mirza Raja Jai Singh (r.1622-1667), the great-grand father of Sawai Jai Singh, that the siege of Purandar was undertaken.⁵⁷ According to an inscription on the map of Purandar, now in the MSMSII Museum collection, it seems that in 1796 a copy of an earlier map was made and submitted to the *suratkhana*. The fort of Purandar is painted as a triangle with view from above. Cannons are placed on the bastions of the fort wall. The eastern entrance to the fort is prominently marked with a yellow gateway. The hills around Purandar are painted in pink with green foliage. All around the fort are the encampments of the various nobles. The act of copying and making many copies of the map shows its high regard and political implications. The reason for high value assigned to this map perhaps lies in the significance of its contents.



Fig.11 : Map of the fort of Seba (Purandar), 1796, MSMSII Museum, Map no.47

V

In the above section, I have mentioned that at times it is possible to associate maps with their artists. The skill of the *chatera* as an architectural draftsman is seen in the plan for the pleasure pavilion patronized by Sawai Pratap Singh (Fig.9). At times, such plans were accompanied with written instructions to assist the construction. In a plan of a similar *kunj*, which was built at Vrindavan under the patronage of Maharaja Bishan Singh, inscriptions point where pavilions, courtyards and raised plinths were to be built, their elevation and even which trees were to be planted (*neem, aam, kadam, mauishri*).⁵⁸ On the other hand, in this case it seems that the artist has indicated the guidelines pictographically. Using a bird's eye view, the artist has depicted the details of the architectural complex. The whole complex is situated on the river bank and the area to be built on land is enclosed by a bastioned red brick wall while three pavilions extend into the river. The interior has six equal sized rectangular courtyards, surrounded by pillared corridors and rooms. Two courtyards have traditional *char-bagh* gardens. The details of the various *tibaras, chattris* and gardens have been clearly marked. In the garden the artist has differentiated the vegetation – plantains, conical cypresses and smaller shrubs can be seen.

Though the above example is closer to a painting than a map or architectural drawing, other instances highlight the skill of the *chatera* as a technocratic visualizer. A series of maps show the planning of a dam at a place called Khiri. These maps show how Khiri as it was and how it would be if a dam was built and a part of the valley was flooded. In the first map the artist has shown the various places where the dam can be placed (Fig.12). The areas where the dam can be built has been indicated in yellow. The second map shows where the dam would actually be built (Fig.13). The last map shows the site after the dam had been built and the lake flooded (Fig.14).



Fig.12 : Plan for the proposed dam at Khiri, 43x59.6 cm, MSMSII Museum, Map no.87

The records of the *suratkhana* show that the *chatera* at Amber-Jaipur was a multi-faceted personality with a number of skills. We find the same artist involved in making architectural plans for towns and palaces, survey and military maps, trade and pilgrimage route maps and topographical drawings for laying out dams and canals as well as other kinds of paintings. Though it seems Dwarak specialized in cartography, he was also involved in mending a portrait. Pohkar, who was sent to Bundi to prepare a map, is frequently mentioned in the

records painting a diverse range of subjects. Another artist called Deepa *chatera* also mastered numerous skills. In 1719, Deepa was issued *daulatatabadi* paper to make a draft of a painting depicting Krishna marrying Rukmini.⁵⁹ In 1722, he made a map of Ayodhya.⁶⁰ He also made a portrait of Kanwar Kishan Singh, the son of Ram Singh I (r.1667-1688).⁶¹ Deepa *chatera* was on the permanent payroll (*chakarsarkarka*) and was well-rewarded. Probably as an appreciation of his contributions, he was entitled to receive a set of garments annually from the state. In 1719, he received such a set of clothes worth 14 *rupiya* and 14 *annas*.⁶² In 1729, Deepa was awarded



Fig.13 : Detail of the plan for the proposed dam at Khiri, 128x88.3 cm, MSMSII Museum, Map no.86



Fig.14 : Plan of Khiri after the dam was built, 43.2x57 cm, MSMSII Museum, Map no.85

with unstitched cloth called *thirmabutadar* (a high quality, probably woollen textile with motifs) worth 5 *rupiya* 13 *annas*.⁶³

The records further show that the *chatera* was not only an illustrator of various subjects and landscapes but he was also well-versed in the craft of bookbinding. For example, let us consider the case of Sitaram *chatera*. In 1744, Sitaram had presented six paintings to the Maharaja as *nazar*. Together they laid the range of subjects that the artist could paint, including portraits of Ishwari Singh, Sawai Jai Singh, a padre, a painting of Krishna, a *mast* elephant and a horse.⁶⁴ From 1747, Sitaram was regularly involved in repairing paintings, rearranging old *muraqqas* and compiling new albums. While making *muraqqas*, he was specifically involved in pasting cloth to the inner edges of the folios to make them stronger, making cloth covered covers and stitching the folios together. His tasks also included preparing the *wasli* and pasteboards (*daftin*) for paintings and adding gold to specific paintings as ordered.⁶⁵ In 1747, along with other artists of the *suratkhana*, Sitaram was engaged in preparing portraits of imperial Mughal emperors and other rulers.⁶⁶ In 1748, he made a satirical painting of the Rathores.⁶⁷ In the same year, Sitaram also started working on a map of Pushkar along with Pohkar *chatera*.⁶⁸ He also painted a large work on cloth which shows Aurangzeb standing before the fort of Golconda, submitted to the *suratkhana* in 1750.⁶⁹ In 1755, Sitaram *chatera* was bestowed with the coveted and prestigious *sar-o-pau* (robe of honour) worth 15 rupees for a palanquin he had painted in the previous year.⁷⁰

The evidence above forces us to reconsider the definition of the *chatera* at the Amber-Jaipur court and consequently his role in art activity. We must consider the *chatera* as possessed of wide-ranging skills. He was not only a painter acquainted with working on different mediums but also a craftsman well-versed in the processes of book-production. In cartographic practice, the agency of the *chatera* is important because the making of maps was a complicated process. It involved a number of steps – selection, omission, simplification, classification, the creation of hierarchies and symbolization.⁷¹ Though much more about the cartographic process needs to be known to give a better definition to the role of the *chatera* in mapmaking, he certainly emerges as a personality skilled not only as an artist, but perhaps also as an observer, visualizer and interpreter of geography.

Endnotes

1. We find references that *karkhanas* existed in pre-Mughal times under Balban (r.1266-87) and Firuz Shah Tughluq (r.1351-88). See Tripta Verma, *Karkhanas under the Mughals: From Akbar to Aurangzeb* (Delhi: Pragati Publications, 1994): 6-14. It has also been pointed out that some Jaipur *karkhanas* (like the *rangkhana* or the workshop for colours) were absent in the Mughal system and others (like the *shuturkhana* or the department of camels) were better evolved than their Mughal counterparts. Sumbul Halim Khan, *Art and Craft Workshops under the Mughals: A Study of Jaipur Karkhanas* (Delhi: Primus Books, 2015): 8.
2. G. N. Bahura, *Literary Heritage of the rulers of Amber and Jaipur* (Jaipur: Maharaja Sawai Man Singh II Museum, 1976): 13; Rita Pratap, *The Panaroma of Jaipur Paintings* (New Delhi: D.K. Printworld (P) Ltd., 1996): 175.
3. It is mentioned that the letters of the *kirkirakhana* have been received. Purohit Girdhar, Pir Ghulam and Murli to Maharaja Ram Singh, *arzdasht*, *Maah Budi* 7, 1732 (28 December, 1675),

4. An *itr* (perfume) was prepared and submitted to the *khushbookhana* by Biharidas. Ajja to Maharaja Ram Singh, *arzdast*, *Paush*, *Sudi* 13, 1739 (1 January, 1683), *ibid.*, 36.
5. According to the orders of Maharaja Ram Singh, the detailed day-to-day records (*haqiqattafsilvar*) of the *tambulkhana* were sent to him. Aasya to Maharaja Ram Singh, *arzdast*, *jyeshthasudi* 10, 1740 (25 May, 1683), *ibid.*, 43.
6. It is reported that the salaries of the employees of the *patarkhana* have not been paid as the taxes for the year have not been collected. Pir Ghulam and Ashrat to Maharaja Ram Singh, *arzdast*, *Shraavan*, *Budi* 14, 1740 (13 July, 1683), *ibid.*, 47.
7. The activities of the *shikarkhana* are reported along with other matters. Tekchand and Pemraj to Maharaja Ram Singh, *arzdast*, *Kartik*, *Budi* 9, 1740 (18 October, 1683), *ibid.*, 51.
8. It is reported that a book of *jyotish-shastra* (astrology and astronomy) has been issued to Damodar from the *pothikhana*. Ghulam Mushtak to Maharaja Ram Singh, *arzdast*, *Karttik*, *Budi* 4, 1741 (16 October, 1684), *ibid.*, 74.
9. Bahura, *Literary Heritage*, 13-16.
10. R.K. Saxena, *Karkhanas of the Mughal Zamindars* (Jaipur: Publication Scheme, 2002): 29-31.
11. V.S. Bhatnagar, *Life and times of Sawai Jai Singh 1688-1783* (Delhi: Impex India, 1974), 286.
12. *Jama-kharchasuratkhana, Samvat 1759* (CE 1702)
13. *Ibid.*, 31-32.
14. J. B. Krygier, 'Cartography as an Art and a Science?', *Cartographic Journal*, Vol.32, No.1 (1995): 3-10.
15. Joseph E. Schwartzberg, 'Introduction to South Asian Cartography', J. B. Harley & David Woodward (ed.), *The History of Cartography*, Volume Two, Book One: *Cartography in Traditional Islamic and South Asian Societies*, (Chicago & London: The University of Chicago Press, 1992), 303.
16. Susan Gole, *Indian Maps and Plans: from the Earliest times to the Advent of European Surveys* (Delhi: Manohar Publishers and Distributors, 1989), 41.
17. The Kapadwara collection cannot be accessed as its holdings are subject to legal proceedings. A catalogue of the maps and plans has been published by G. N. Bahura & Chandramani Singh, *Catalogue of Historical Documents in Kapad-dwara, Jaipur: Maps and Plans* (Jaipur, 1990).
18. Vibhuti Sachdeva, Giles Tillotson, *Building Jaipur: The Making of an Indian City* (London: Reaktion Books, 2002), 36.
19. *Jama-kharchachitragrah, Samvat 1794-97* (CE 1737-40), 316-332.
20. Ashim Kumar Roy, *A History of Jaipur City* (New Delhi: Manohar Publications, 2006), 142.
21. Sachdeva, *Building Jaipur*, 70.
22. For example, see the inscription on a plan of Jaisinghpura in Ujjain after Sawai Jai Singh was appointed as the *subedar* of Malwa in 1713. Bahura & Singh, *Catalogue of Historical Documents*, cat. no. 62, p. 23.
23. The record specifies that Zinda was employed till *Asoj* (September-October), *Budi* 12, 1737, i.e. for a total of 71 days. But he was not paid for 4 days. The reason for this deduction is not mentioned. See *jama-kharchachitragrah, Samvat 1794-1797* (CE 1737-1740), 307.
24. *Ibid.*, 322.
25. *Roznamasuratkhana, Samvat 1859* (CE 1802).
26. Meghraj to Maharaja Bishan Singh, *wakil* report, 6 *Rajab* 1103 AH (14 March, 1692), A *Descriptive List of the Wakil Reports Addressed to the Rulers of Jaipur*, Vol.I (Persian) (Bikaner: Rajasthan State Archives, 1967): 44.
27. Chandramani Singh and Attilio Petruccioli, 'Cartographic Tradition of India: A Study in Medieval Indian Maps and Plans', 28 January, 2009, <http://www.kunstpedia.com>.

28. Bahura & Singh, *Catalogue of Historical Documents*, cat.no.221, p.112-113.
29. Kesho Rai to Maharaja Bishan Singh, *wakil* report, 21 *Shawwal* 1102 AH, *A Descriptive List of the Wakil Reports Addressed to the Rulers of Jaipur*, Vol. I (Persian) (Bikaner: Rajasthan State Archives, 1967): 40. The translator of the record has misread Ucchain for Ujjain. See V. S. Bhargava, *Rise of the Kachhawas in Dhundhar (Jaipur): From the earliest times to the death of Sawai Jai Singh (CE 1743)* (Ajmer: Shabd Sanchar, 1979): 128, fff.5.
30. Meghraj to Maharaja Bishan Singh, *wakil* report, 25 *Rabi-ul-awwal* 1104 AH (24 November 1692), *ibid.*, 57.
31. Pancholi Jagjiwan Das to Maharaja Bishan Singh, *wakil* report, undated, *A Descriptive List of the Wakil Reports Addressed to the Rulers of Jaipur* (Rajasthani) (Bikaner: Rajasthan State Archives, 1967): 59.
32. Jadunath Sarkar, *A History of Jaipur* (Oreient Longman, 1984): 168-171.
33. H. C. Tikkiwal, *Jaipur and the Later Mughals* (Jaipur: Hema Printers, 1974): 64.
34. *Jama-kharchasuratkhana, Samvat 1775-1779 (CE 1718-1722)*, 180.
35. Map no.67 & Map no.91 in Bahura & Singh, *Catalogue of Historical Documents*. These maps at the City Palace, Jaipur are inaccessible because this collection has been sealed by the court as they are a part of ongoing legal disputes.
36. *Ibid.*, 8. Also see Fig.34, Plate XVIII.
37. Vidyadhar was an important official at Sawai Jai Singh's court and became his *diwan* (chief minister) by 1729. He is usually called the architect of the city of Jaipur, though there is no consensus amongst scholars about this. For a summary of the debate about his role in the establishment of the city and his position in Sawai Jai Singh's court, see Sachdev, *Building Jaipur*, 46-47.
38. *Jama-kharchasuratkhana, Samvat 1775-1779 (CE 1718-1722)*, 179.
39. *Jama-kharcha suratkhana, Samvat 1779-1782 (CE 1722-1725)*, 221.
40. In the *ijaradari* system, the right to collect revenue from a region was granted to the highest bidder. Bhatnagar, *Life and times of Sawai Jai Singh*, 275.
41. *Dastur Komvar*, Vol.23, 402-403.
42. *Roznamasuratkhana, Samvat 1799 (CE 1742)*.
43. *Roznamasuratkhana, Samvat 1802 (CE 1745)*.
44. The roots of Ishwari Singh's involvement in the succession disputes at Bundi-Kota lay in his father's actions. In an attempt to establish his hegemony within Rajasthan, through a series of political maneuvers Sawai Jai Singh had replaced Budh Singh Hada with his protégée, Dalel Singh on the Bundi throne. After the death of Budh Singh, his son Ummed Singh continued the struggle to reclaim Bundi. See Sarkar, *A History of Jaipur*, 190-194.
45. *Ibid.*, 232-233.
46. J. B. Harley, 'Deconstructing the Map', *Cartographica*, Vol.26, No.2 (1989), 1.
47. Matthew H. Edney, 'The Irony of Imperial Mapping', James R. Akerman (ed.), *The Imperial Map: Cartography and the Mastery of the Empire*, University of Chicago Press (2009), 12.
48. Harley, 'Deconstructing the Map', 3.
49. Edney, 'The Irony of Imperial Mapping', 12.
50. Christian Jacob, (trans.) Tom Conley, (ed.) Edward H. Dahl, *The Sovereign Map: Theoretical Approaches in Cartography Throughout History*, (University of Chicago Press, 2006), xiii.
51. *Ibid.*, xiv.
52. *Ibid.*
53. Edney, 'The Irony of Imperial Mapping', 24.
54. *Roznamasuratkhana, Samvat 1783 (CE 1726)*.

55. Bahura, *Catalogue of Historical Documents*, 34.
56. Gole has wrongly identified this map as that of Panhala. The fort is called Purandar in two inscriptions on the map and in one referred to as Seba. Gole, *Indian Maps and Plans*, 152.
57. Sarkar, *A History of Jaipur*, 123-129.
58. Bahura & Singh, *Catalogue of Historical Documents*, cat.no. 195, p.108-109.
59. *Jama-kharchasuratkhana, Samvat 1776 (CE 1719)*, 175.
60. *Jama-kharchasuratkhana, Samvat 1779 (CE 1722)*, 181.
61. *Jama-kharchasuratkhana, Samvat 1760 (CE 1703)*, 32.
62. These included four turbans – two *chiramukeshi* (high walled style of turban with gold or silver embroidery) and two turbans of chintz called *fenta* which was loosely tied around the head. *Dastur Komvar*, Vol.23, p.401.
63. *Ibid.*, p.402.
64. *Roznamasuratkhana, Samvat 1802 (CE 1744)*.
65. Gold was issued to Sitaram to work on a *khasa* (special) *muraqqa* of portraits, *Roznamasuratkhana 1805 (CE 1748)*.
66. *Sialkoti* paper, colours and gold was issued to Jagroop, Sitaram, Sahibram, Pohkar and Udachela to prepare seventeen paintings of Mughal emperors, a painting of the Mewar Maharana, etc. *Jama-kharchasuratkhana, Samvat 1804-05 (CE 1747-48)*, 83.
67. The description of the painting is not very clear however the term '*savihaasiki*', i.e. painting of laughter is used, *Roznamasuratkhana, Samvat 1805 (CE 1748)*.
68. *Ibid.*
69. Asok Kumar Das, 'Activities of the Jaipur Suratkhana, 1750-1768', in John Guy (ed.) *Indian Art and Connoisseurship: Essays in the honour of Douglas Barrett* (Mapin Publishing Pvt. Ltd., 1995), 202-203.
70. *Dastur Komvar*, Vol.4, 338.
71. Harley, 'Deconstructing the Map', 11.