



**INTERACTION OF WEST INDIAN (NOTABLY  
RAJASTHAN) ARCHITECTURE AND MUGHAL  
ARCHITECTURE DURING 16th AND 17th  
CENTURIES**

**THESIS**

SUBMITTED FOR THE AWARD OF THE DEGREE OF

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BY

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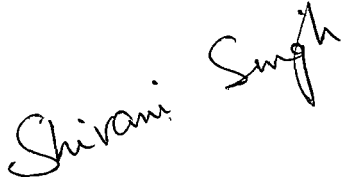
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I take my responsibility for any mistake,

Aligarh,  
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(SHIVANI SINGH)

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## GLOSSARY

1. Abacus : a square or rectangular crowing member of a capital.
2. Aisle : Lateral divisions running at the sides of the nave.
3. Alcove : vaulted recess in wall
4. Arbesque : decoration with fanciful interwining of ornamental elements.
5. Arcade : range of arches supported on columns.
6. Arcuate : arched
7. Balcony : outside balustraded platform
8. Balustre : a small pillar supporting a handrail
9. *Baradari*: pavilion with twelve openings
10. Bastion : Projecting part of the fortification
11. Battlements: Intended parapet
12. *Burj* : tower
13. Canopy : covering over a nich
14. Causway: raised road
15. Cieling : covering surface under roof.
16. *Chajja* : Overhanging eave cornice
17. *Chhatri* : Kiosk or small pavilion
18. Corbel : Blocks of stone projecting from a wall or pier.

19. Cupola : *Singar* spherical roof
20. Cusp : range of arches in intrados.
21. *Diwan-i-Am*: Hall of public audience
22. *Diwan-i-Khas*: Hall of private audience
23. Eaves : Lower projected portion of roof
24. Facade : Front view or elevation
25. Finial : Finishing portion of a pinnacle
26. Fluting : Vertical channelling on the shaft of a column
27. Gothic : pointed arched style
28. *Gumbad* : Local name for dome
29. Impost : Member on which the arch immediately rest.
30. Intrados : inside surface of an arch
31. *Jali* : lattice or perforated screen
32. Kiosk : *chhatri*, small pavilion
33. Liwan : pillared cluster of a mosque
34. *Mihrabs* : rich or arched recess in the western wall of mosque
35. Monolith: Single block of stone shaped with a pillar monument.
36. *Naqqar Khana*: Drum house
37. Nich : recess in the wall
38. Ogee : a form of arch

39. Opus sectile: a marble inlay of various colours
40. Parapet : Upper portion of a wall, above the roof
41. Pavillion: *Chabutra*
42. Pendentive: triangular surface by which a dome is supported on a square hall.
43. Pinnacle : *Guldasta*, small turret-like termination
44. Portal : doorway
45. Pyramidal: like a pyramid
46. *Rang Mahal*: Painted palace
47. Shaft : portion of a column between base and capital.
48. Spandril: Triangular space between the curve of an arch and the square enclosing it.
49. Turrets : Small towers
50. Voussoir: Wedge shaped blocks forming a true arch
51. Waggon-vault: semicylindrical roof like a waggon tilt or cover.
52. *Zenana* : woman's apartment.

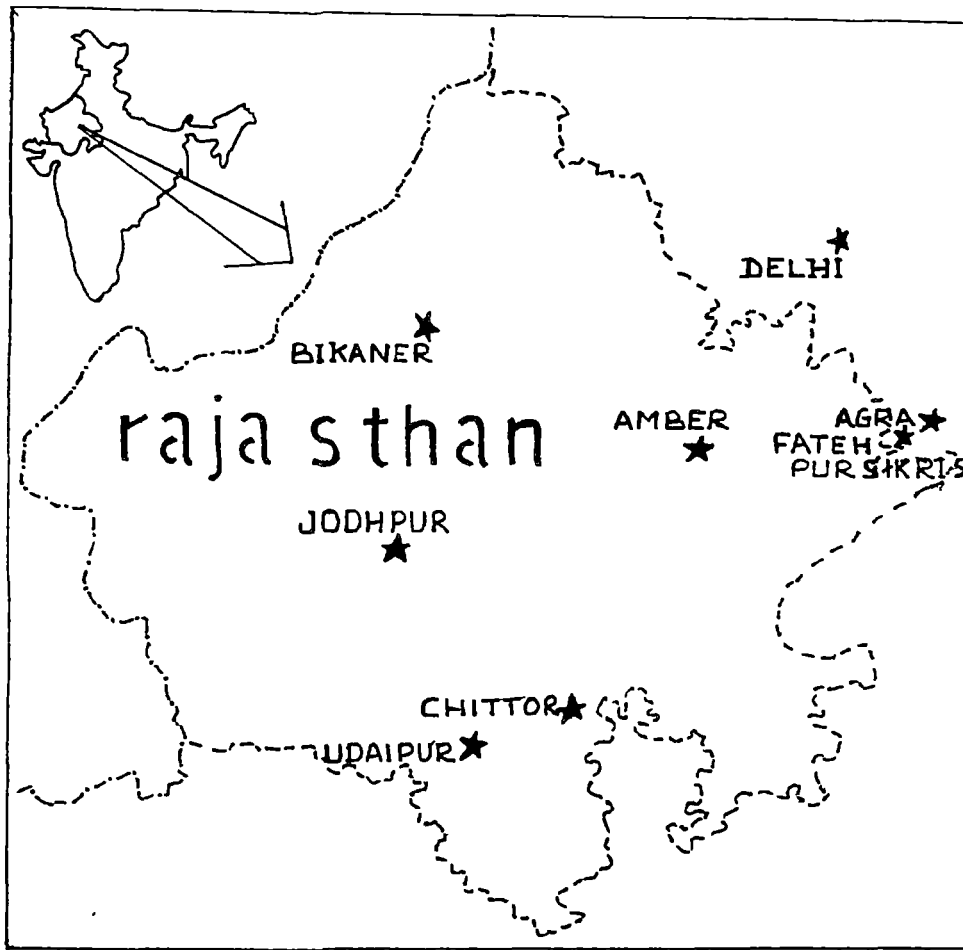
## INTRODUCTION

In 1991, the Department of History (CAS) assigned me the topic "Interaction of West Indian (Notably Rajasthan) Architecture and Mughal Architecture During 16th & 17th Centuries", leading to Ph.D. degree. The present work is based on the survey work done by me which included detailed physical examination of the different parts of the forts of Rajasthan and Mughal buildings at Fatehpur Sikri, Agra and Delhi. To avoid enlargement and save time and space, we have selected forts of Amber, Udaipur, Chittor, Jodhpur and Bikaner to study the influence of Mughal architecture and Fatehpur Sikri, Agra and Delhi to study the influence of Rajputana architecture.

In the present thesis an attempt is made to study the interaction between the two different schools- architecture of Rajputana and architecture of Mughal by corroboration of the findings of survey with the textual references. For references and information on many aspects, the contemporary Persian chronicals, Rajasthani sources and modern work on architecture and political history studies and quoted.

After completing desk-work next step was the physical survey which included a detailed examination of selected Rajput

# sites studied



forts and palaces and Mughal forts and palaces of the 16th and 17th Centuries. Present thesis has been divided into five chapters:

Chapter-I: "PHYSICAL GEOGRAPHY OF RAJASTHAN" gives details about environ, geology, river and water resources and climate etc.

Chapter-II: "MUGHAL RAJPUT RELATIONS: AN OUTLINE" gives Akbar's policy of subjugation and matrimonial alliances subjugation of states one after other in chronological order. List of Rajput *mansabdars* and other officials in the Mughal court is also provided.

Chapter-III: "RAJPUT ARCHITECTURE" deals with the forts of Amber, Chittore, Udaipure, Bikaner and their palaces. Main features of Rajput architecture and mughal influence on it has also been studied.

Chapter-IV: "MUGHAL ARCHITECTURE" deals with the main features of the mughal architecture and Rajput influence on the buildings of the Fatehpur Sikri, Agra and Delhi.

Chapter-V: "CONCLUSION" gives the positive evidence of mughal and Rajput interaction in the architectural activities.

It is believed that this work would stimulate further research in interection between different schools of art and architecture.

## CHAPTER - I

### PHYSICAL GEOGRAPHY OF RAJASTHAN

Rajasthan is geographically divided into two parts- Rajasthan Plain and Udaipur Region. The Rajasthan plain includes the eastern portion of the Thar and the adjoining steppe land (*Bagar*) to the west of Aravallis. This area is also known as "sanded over peneplain".<sup>1</sup> The Udaipur region comprises mostly the eastern part of Rajasthan: the central Highland of India with the Aravallis.

The southern mountain<sup>2</sup> of the *Ain-i-Akbari* and Peter Mundy's Arbudachal<sup>3</sup> (corrupt form of the Aravalli) are the description of the Aravalli Hills.

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1. Singh, R.L. (Ed.), *India A Regional Geography*, Varanasi, 1987, p.50.
  2. *Aini-Akbari*, I, p-505.
  3. Peter Mundy, *Travels of Peter Moundy in Europe and Asia*, Vol. II, London, 1914, pp. 257-87.

## CHAPTER - I

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During the Talchir age, the western Rajasthan (including Jodhpur and Bikaner) was covered by sea.<sup>4</sup> "This sea", according to R.L. Singh "would have extended through and to some distance north of the Rann of Kutch into the Indus, the Saraswati and the Luni valleys and some parts of Rajasthan".<sup>5</sup>

At the time of first orogenic movement, the Archaean sediments were uplifted and gave birth to the Aravallis which since then have dominated the regional landscape.<sup>6</sup> According to D.N. Wadia, "Evidence exists that this mountain chain received renewed upheavals during the early palaeozoic and was of far greater proportions in past times, and that it stretched from the Deccan to perhaps

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4. Krishnan, M.S., "Geological History of Rajasthan and Its Relation to Present Day Condition" *The Proceedings Symp. Rajputana Desert*, (Bull. 1, Nat. Inst. Sci. India, 1952) pp. 19-31.

5. Singh, R.L., *op.cit.* p.51

6. *Ibid*, p.519

7. Wadia, D.N., *Geology of India* (London, 1961), pp. 99-100 also see Singh, R.L., *op.cit.* p.519.

beyond the limits of the Himalayas."<sup>7</sup>

The Aravallis and the Vindhya, separated by the "Great Boundary Fault"<sup>8</sup>, regions experienced the main formations outcropping through the major geological events.

The Aravalli system is largely composed of argillaceous deposits, metamorphosed from shales through states and phyllites to mica schists with outcropping around Alwar, Udaipur, Ajmer etc. While the Raialo series consists of the metamorphosed limestones, gneisses, phyllites and schists with quartzitic intercalations occurring in Makrana, Nagaur, Nathdwara, Rajnagar etc.<sup>9</sup>

The lower Vindhya are well exposed in Karauli tableland and extended through Sawaimadapur to Bundi & Kota. "The junction of the upper Vindhya with the older

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7. Wadia, D.N., *Geology of India* (London, 1961), pp. 99-100 also see Singh, R.L., *op.cit.* p.519.

8. Singh, R.L., *op.cit.* p.579.

9. *Ibid*,

rocks of the Aravallis", as marked by D.N. Wadia, "at their north-west extremity reveals an extremely long fault of great throw, which has brought the undisturbed, almost horizontal strata of the Vindhyan sandstone in contact with the highly folded and foliated schists of the Aravallis. This great fault which has a throw of 1,500 m is roughly parallel with the course of the Chambal and can be traced from the western limits of this outcrop as far north as Agra, a distance of 800 km. It is possible that this junction is not of the nature of the ordinary fracture or dislocation, but marks the approximate limit of deposition of the younger Vindhyan sandstone against the foot of the Aravallis which was modified subsequently by faulting and thrusting. The faults, therefore, is of the nature of the Boundary Fault which recalls the much better area of the junction of the younger with the older Tertiaries of the Himalayas."<sup>10</sup>

### **Relief and Drainage:**

The Rajasthan plains slopes from east to west and north to south and has a general elevation of about 150 m

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10. Wadia, D.N., *op.cit.* pp, 132-33.

to 300 m with many scattered hillocks marking the western edge of the *Bagar*. Western half is generally covered with sand dunes and small hillocks coming out of them. The important river of the plain is the Luni starts from south-west of Ajmer and towards south-west and has several affluents, the Sukri and Jawai, coming from the Aravallis and reaches the Runn of Kutch during the rainy season.

The Udaipur region has a varied topography which is the result of its geological history. The denudational chronology of the regional landscape from pre-Cambrian to sub-recent period, peneplanation, warping, intrusion and deformation, have produced many relict features which are presented by the outliers of the Aravallis as well as the Vindhyan scarplands."<sup>11</sup> This region is a combination of low land and upland topography. Physiographically, according to Geologists, this region can be divided into : (i) the Aravalli range and hill tracts and (ii) the Eastern Plains.

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11. Singh, R.L., *op.cit.* p.520.

**Soil:**

The soils of Rajasthan plain are generally characterized as sandy. "This windblown sand, which has hindered soil formation, is derived partly from the surface rocks and a large part of it is blown in from the coastal regions."<sup>12</sup> The following types of soils are found in Rajasthan plain -

- i) Desert soil contains a high percentage of soluble salt and has high pH value.
- ii) Red desertic soil - pale-brown to dark-brown colour and is good for cultivation.
- iii) Yellowish brown sandy soils - yellowish brown, sandy to sandy loam and sandy clay loam is suitable for cultivation. And,
- iv) Alluvial soil - red colour but is deficient in lime, phosphoric acid and humus is good for cultivation.

Because of high degree of salinity and drainage

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12. Misra, V.C., 'The Marusthali' in *India Regional Studies* ed. by Singh R.L. New Delhi, 1968, p-247.

agriculture in these soils is not possible, only salt - resistant grass is growing.

In Udaipur Region we find following types of soils -

- i) Alluvial soil vary in texture from clayey to sandy loam and have varying tints. Generally these soils are considered for good agricultural productivity.
  - ii) Medium Black soil is not very deep and occur in the forms of clays and loams of dark brown colour and it gives better yield.
  - iii) Mixed red and black soil is also good for cultivation.
- AND,
- iv) Grey and Brown soil fertility is enhanced due to presence of nitrogen.

### **Minerals:**

The Rajasthan plain is endowed with a great variety of minerals which is devoid of ferrous and other metallic minerals and a few important minerals namely gypsum lignite etc. are found here.<sup>13</sup>

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13. Singh, R.L., *op.cit.* p.60.

From architecture point of view Rajasthan is very rich in "ceramic minerals"<sup>14</sup> and building materials widely distributed in the region: marble<sup>15</sup> in the *Bagar* tract particularly at Makrana<sup>16</sup> in Nagaur district and also a variety of minerals of lesser importance i.e. asbestos, soapstone etc.

The Udaipur region possesses the most important mineral belt along Aravalli accounting about 75% of its total production of various minerals such as: lead<sup>17</sup>, zinc<sup>18</sup>, silver (*pargana* Sojhat, Jaitran and Uncha)<sup>19</sup>, Copper (Singhana and Udaipur, Mewar, Chainpur and

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14. *Ibid*,

15. *Ain-i-Akbari*, I, p.512.

16. *Ibid* and Peter Mundy, *op.cit.* II, p.241

17. Singh, R.L., *op.cit.* p.529.

18. *Ain-i-Akbari*, I.35.

19. Habib, Irfan, *An Atlas of Mughal India*, p.20.

Kishangarh)<sup>20</sup>, iron (Malpur)<sup>21</sup>, Mica (Kishangarh)<sup>22</sup> building stone (red sand stone in Rupbas, Bayana & Dholpur)<sup>23</sup>, Turquoise (Toda Bhim)<sup>24</sup> and saltpeter (Ajmer)<sup>25</sup> etc.

### **Climate:**

The varied nature of the climate has also played an important role in the development as Rajasthan's architecture. The climate of the Rajasthan plain is experienced by extremely high range of temperature- the temperature rises above 40°C (the maximum occasionally reaching 50°C) and sometimes dips down to below freezing

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20. *Ain-i-Akbari*, pp. 454, 505, Peter Mundy, *op.cit.* II, pp. 241-2.

21. Habib, Irfan, *op.cit.* p.20

22. Peter Mundy, *op.cit.* II, p-241-2.

23. *Babarnama* (tr.) p.543.

24. *Ain-i-Akbari*, I, p.442.

25. Sen, Surendranath (ed.) *Indian Travels of Thevenot and Carei*, New Delhi, 1949, p.74.

point - 2.8°C and frosts commonly found during winter. The rainfall is generally scanty and uncertain - 50 cm to 75 cm.

The climate of the Udaipur region also vary place to place - it rises above 40°C during summer and dips down to 5°C in winter. The rainfall, June to September gives 80% of annual rainfall (100-150 cm). Rainfall decreases from east and west-east to west. Mt. Abu receives 164 cm rainfall generally.

## CHAPTER - II

### MUGHAL RAJPUT RELATIONS: AN OUTLINE

After the first battle of Panipat in 1526 AD Emperor Babur laid the foundation of Mughal Empire. However, the real founder was Emperor Akbar, Babar's grandson. Jahangir, Akbar's son, testifies to the human qualities of his father: "he never by a hair's breath placed his foot beyond the base of humanity before the throne of God, but considered himself the lowest of created being."<sup>1</sup> Humayun was advised by Babur that "..... the health of the state depended on first and jenniferous treatment of different communities inhabiting it."<sup>2</sup> And in the same fashion Humayun advised Akbar to be "kind and considerate towards Rajputs as loyalty was ingrained in their character" and "rebellion or contumacy is not in their grain. Don't expect anything else from them but loyalty and service."<sup>3</sup>

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1. *Tuzuk-i-Jahangiri* (tr), A Rogers, ed. by H.Beveridge, London, 1909. pp. 37-38.
  2. *Babarnama* tr. pp 555-556.
  3. Nizami, K.A. *Akbar and Religion*, p.17

Keenly interested in history Akbar might have known about secular policies and traditions of Indian polity of Muhammad bin Tughlaq (Delhi *Sultanate*) and Zani-ul-Abdin (1420-70) ruler of Kashmir.<sup>4</sup>

Fond of experiments and according to Nizami "he (Akbar) turned to the socio-religious problems of Indian polity in the same spirit of experiment and adventure."<sup>5</sup>

Akbar followed the policy of reconciliation with the Rajputs because of ancestral teachings as well as to gain ground with their support who were the sons of the soil. Therefore, he started the policy of subjugation of Rajput state instead of annexations. To strengthen the bond of friendship he started the policy of matrimonial alliances with a number of ruling Rajput states. These Rajput princes increased their military strength upto such extent that they could have thought in term of perhaps, fighting against the

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4. Habib, M. & Nizami K.A. (ed.) *Comprehensive History of India*, V. New Delhi 1982, pp. 494-5.

5. *Akbar and Religion*, p.99.

Mughal power<sup>6</sup>.

Akbar did not want to annex the Rajputana but he was in need of nobles<sup>7</sup> who would be fully loyal and subservient to him. Such a loyalty could be expected only from Rajputs.<sup>8</sup> Akbar learned from the past that Afghan, Turks and Mughal nobles had always defied the rulers.

Akbar did not like the most powerful state in the Rajasthan who (Mewar) refused to consider him as paramount power and he made up his mind to march against Chittor and launched an expedition against Chittor in 1567AD. Submission of Chittor and near by its territory was very important to break other Rajput rulers' stiffness; for Mughal expansion in the direction of Gujarat and; to protect the Mughal highway from Agra to Surat, the only

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6. *Tuzuk-i-Jahangiri* (tr), p.31, See appended table.

7. Number of Rajput nobles had increased. there were 16% Rajput nobles of rank 1000 and above and 16% of rank 500 and above in the period of 1575-95. Ali, Ather, "*Noibility Under Akbar.....*", Delhi, 1985, p.35.

8. *Akbar and Religion*, p.17

Kachhwaha family of Amber entered matrimonial after marriage of daughter of Raja Bharmal with Akbar in 1562 AD and put the stone of Akbar's Rajput policy. Dr. Beni Prasad's view is that "it secured to four generations of Mughal emperors the services of some of the greatest captains and diplomats that medieval India produced<sup>9</sup>.

Akber's Rajput policy was on correct understanding of Rajasthan and its psychology of the Rajput rulers of contemporary time. Within two years of fall of Chittor, the ruler of Bikaner, Jaisalmer and Jodhpur submitted to Mughal ruler and entered into matrimonial alliances. This position was as follows: Akbar married a niece of Raja of Bikaner in 1570AD<sup>10</sup>; and a daughter of Raval Har Rai of Jodhpur in 1570AD<sup>11</sup>. He also married a daughter of Raja Maldev of Jodhpur in 1576AD<sup>12</sup>.

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9. *History of Jahangir*, p.2.

10. *Akbarnama II* (tr.) H. Beveridge, Delhi, 1983 p.358

11. *Ibid*

12. P. Saran, *Provincial Government of the Indian Mughals*, pp. 134-44.

From 1576AD onward, he arranged marriages of his sons also with Rajput princes. Marriage of his sons—

1584 AD:

Salim's marriage with the daughter of Raja Bhagwan Das<sup>13</sup>.

1586 AD:

- (i) Salim's marriage with the daughter of Rai Singh of Bikaner<sup>14</sup>.
- (ii) Salim's marriage with the daughter of Rai Udha Singh of Jodhpur<sup>15</sup> (mother of Shahjahan).
- (iii) Salim's marriage with a daughter of Raval Bhim of Jaisalmer<sup>16</sup>.
- (iv) Daniyal's marriage with a daughter of Rai Mal of Jodhpur<sup>17</sup>.

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13. *Akbarnama* , II, p. 494.

14. *Ibid*,

15. *Ibid*

16. Saran, P. *op.cit.* p.146.

17. *Akbarnama* III, p. 699.

(v) Salim's marriage with a daughter of Darya Mal Bhas.<sup>18</sup>

(vi) Salim's marriage with daughter of Keshav Das Rathor.<sup>19</sup>

(vii) Daniyal's marriage with a daughter of Dilpat Ujjama.<sup>20</sup>

Maharana Pratap succeeded his father Udai Singh and Mughal had to face new problems because he made up his mind to get Chittor and its territories back and so the honour of Rajputs. Akbar also wanted to crush Maharana Pratap's increasing powers- social, political and psychological. In the battle of Haldighati in 1576AD, Maharana Pratap was defeated by the Mughal army. "The battle did not break the Rana's power", according to A.L. Srivastava "it only caused a temporary set-back to his fortune. From more than one point of view the battle proved to be a blessing in disguise. Far from disheartening him or making him give up resistance, it stiffened the Rana's attitude and gave him fresh confidence. The brave stand of his troops against the

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18. *Ibid*, p.572

19. *Ibid*, p.581

20. *Ibid*, p,826

most powerful and richest monarch on convinced him of his moral strength and determined him to continue the struggle. Haldighati is a dividing line between Pratap's policies and activities before June 18, 1576AD and after the date."<sup>21</sup>

Before his death in 1597AD, Maharana Pratap successfully won back a big portion of Mewar from the Mughals except Chittor, Ajmer and Mandalgarh.

Rana Amar Singh, successor of Maharana Pratap also carried on the offensive policy of his father against the Mughal ruler but he was defeated by Prince Salim and Man Singh's joint force in 1599AD and the Mewar was badly devastated by the Mughal forces.

With matrimonial alliances, Akbar created a nobility of Rajputs and with the exception of Maharana Pratap, the rest of the Rajput rulers joined his servies<sup>22</sup> and not only served him with loyalty but were also helpful even during

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21. *Akbar the Great*, AL, Srivastava, Vol. I, p.213

22. See appended List of Rajput Ranks holders.

the reigns of Jahangir, Shahjahan and Aurangzeb. During 16 & 18th century there was total peace in the Northern-India which was reflected by architectural activities at large scale at different places and apart from trade and commerce new towns came into existence on Mughal trade route and development in fine arts.

After Akbar's death in 1605AD, Mughal emperor Jahangir re-started war with Mewar and send a force under Mohabat Khan and also successive attack under Abdullah Khan but they did not achieve substantial results. The third attempt was done under the leadership of prince Khurram who forced Amar Singh to acknowledge Jahangir as over lord. Jahangir also treated him generously and all the territory of Mewar was restored to him and was not compelled to attend the Mughal court in person.<sup>23</sup>

"The struggle proved", according to R.P. Tripathi, "the viladity of the work done by Rana Kumbha, Rana

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23. R.P. Tripathi, *Rise and Fall of Mughal Empire*, Allahabad, 1987, p.376.

Sanga and Maharana Pratap. Much credit is due to Jahangir, who treated the brave descendant of Mewar with Chivalry and offered them a generous treatment which contrast with the vulgarity of their co-religionists, the Marathas."<sup>24</sup>

Acknowledgement of the Mughal power by the Mewar in 1613-14AD strengthened the Mughal Rajput relations established by Akbar which last till the Rathod Reballion (in 1679AD) during Aurangzeb's reign.

At the time of Maharaja Jaswant Singh's death in 1678AD, he was in the Mughal services, Aurangzeb detained his posthously born sons in Mughal court and he sent his officers to take the charge of Marwar. Rajputs, particularly Rana of Mewar were appealed, by the widows of Jaswant Singh, for help. The Rajputs made it common cause and not only decided to rescue the successors of Jaswant Singh but also started war against Mughal which continued from 1679AD to 1681AD. In 1679AD, Jodhpur was annexed, the state of Mewar was ruined and Rana run

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24. *Ibid*, p. 378.

away. By the end of 1681AD, Rathod rebellion was suppressed by Aurangzeb's army but he had committed a blunder because he had lost loyalty and support of the Rajputs. When he was busy in the Deccan and deep-south, he was all the time afraid of the Rajputs.

We can conclude the Mughal-Rajput relation with the help of Sir Wolsely Heig's remark that "the religious policy of Aurangzeb was disastrous. His great grandfather (Akbar) had striven to remove the religious and social barriers which divided the various classes of his subjects, and though exception can be taken to his methods, none can be taken to the end which he had in view. His grandfather (Jahangir), the son of a Hindu mother, held liberal, even lax views on religion. His father (Shahjahan) was a better Muslim than either Akbar or Jahangir, but, except in the case of political offenders, bridled his zeal. But Aurangzeb was a bigot to whom the religion of the great majority of his subjects was anathema, mischief, idolatry, which it was his duty before heaven perscente, and if possible to stamp out. His methods were iconoclasm, scarilege, & economic

. repression, bribery, forced conversion, and restriction of  
worship."<sup>25</sup>

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25. *The Cambridge Shorter History of India*, p.3234.

**TABLE OF RANKS, TITLES AWARDED TO SELECTED  
RAJPUTS**

S.No.	Name	Rank	Title	Year
1.	<i>Raja Patar Das</i>	<i>Diwan of Bengal</i>	—	1579-80
		<i>Diwan of Sind</i>	—	1593-94
		—	<i>Rai Rayan</i>	1596-74
		—	<i>Raja Bikramjit</i>	1603-04
2.	<i>Raja Todar Mal</i>	<i>Diwan</i>	—	1582-96
3.	<i>Raja Man Singh</i>	<i>Subedar of Kabul</i>	—	1585
		<i>Subedar of Bihar</i>	—	1587-1594
		<i>Subedar of Bengal</i>	—	1594-1615
4.	<i>Raja Bhagwant Das</i>	<i>Subedar of Punjab</i>		1581-82
		<i>Subedar of Lahore</i>		1581-86
5.	<i>Raja Rai Singh</i>	Joinly <i>Subedar</i> of Lahore		1586-1591
6.	<i>Raja Jagan Das</i>	<i>Subedar of Ajmer</i>		1585-86
7.	<i>Raja Rai Durga Sisodia</i>	Jointly <i>Subedar</i> of Ajmer		1585-86
8.	<i>Raja Kalyan</i>	Jointly <i>Subedar</i> of Orissa		1607-13
9.	<i>Raja Bethal Das</i>	<i>Quiledar of Ranthamber</i>		1630-31
		<i>Faujdar of Ajmer</i>		1631-32
		<i>Subedar of Ajmer</i>		1633-34
10.	<i>Raja Bhagwan Das</i>	<i>Mustanfi-i-Mumalik</i>		1574-75
11.	Banwali Das	<i>Karorid of Sarkar Bhakkar</i>		1574-74
12.	Tara Chand	<i>Bakshi of Awadh</i>		1585-86
13.	Udai Singh	<i>Hakim of Jodhpur</i>		1593-94
14.	Ram Das Kachhwala	<i>Qiledar of Hanthambore</i>		1593-94
15.	Rai Ram Das	<i>Diwan of Allahabad</i>		1594-95
16.	Kishan Das Taunwar	<i>Diwan of Bengal</i>		1594-95

17.	Bikramjit	<i>Miri Atish, Subedar of Gujrat</i>		1605-06
18.	Anup Rai	<i>Subedar of Bangash Quiledar of Kangra</i>	<i>Ani Rai Singh Dalan Raja</i>	1610-11 1630-31 1617 1625-26
19.	Rup Khawas	<i>Faujdar of Qannauj</i>	<i>Khawas Khan</i>	1612-13
20.	<i>Raja Nath mal</i>	<i>Hakim of Asirgarh</i>		1619-20
21.	Sarbuland Rai	<i>Quiledar of Burhanpur</i>		1624-25
22.	<i>Raja Jagat Singh</i>	<i>Thanedar of Bangash</i>		1634-35
23.	Girdhar Das	<i>Quiledar of Jhansi</i>		1635-36
24.	Jaswant Singh		<i>Raja</i>	1649-50
25.	<i>Raja Jai Singh</i>		<i>Mirza Raja</i>	1638-39

*See Ali, Ather, The Apparatus of Mughal Mansubdars.*

## CHAPTER - III

### RAJPUT ARCHITECTURE

#### **Forts of Rajasthan: An outline**

Rajasthan is the traditional home land of the Rajputs who are known for their chivalry and loyalty which is further testified by the medieval forts and palaces surviving on hilltops, on the side of lakes and in the desert.

The earliest phase of architectural activities of Rajasthan is reflected by the ruins of many temple constructed between 6th and 11th century AD . However, beauty of their craftsmanship can be easily imagined from the carved pillars surviving in many pre-medieval and medieval monuments with the advent of Turks in India towards the close of 12th c. A.D. arcuate style of architecture was introduced in India. The characteristic features of the arcuate style are arches and domes. However, the region of Rajasthan was not influenced by Delhi *Sultanate's* architectural development.

The arcuate style was introduced in Rajasthan through the contracts with the *Sultanate* of Gujarat and Malwa as

is evident in the buildings of Rana Kumbha's palace.

During the *Sultanate* period, the Rajput rulers of Rajasthan did not have cordial relations either with the Delhi *Sultans* or with the *Sultans* of Gujarat & Malwa. On the contrary Rajput rulers and the *Sultans* were constantly fighting with each other during the period. However, during the Mughal period a new phase of cultural synthesis between the Rajputs and Mughals started. The Mughal emperors, Akbar to Aurangzeb, made friendly relations with the Rajputs by means of one sided matrimonial alliances and also by enrolling the Rajput rulers as Mughal *mansabdars*. As Mughal *Mansabdars* they had to serve the Mughal administration in different capacities. Thus a new process of cultural give and take started in different field and architecture was one of the most important fields of cultural synthesis. During the Mughals, 16th and 17th century AD, Rajput and Mughal builders consciously and un-consciously borrowed many structural features from each other.

Forts and palaces are built either on the rock or by

the side of lakes which afforded proper protection against any attacks. Their basement are fortified with round or multisided towers and bastions or constructed solid upto considerable height. The forts of almost all the Rajput states are best examples of military architecture in Rajasthan.

The palaces in Rajasthan were built mainly during 16th & 17th centuries. The main examples are those at Udaipur, Amber, Jodhpur, Jaisalmar and Bikaner but do not confirm any rigid pattern but they show evidence of medieval taste and liking as we find Rajput taste in the Fatehpur Sikri, Agra and Delhi.

- (i) CHITTOR, one of the historic forts of India, situated 152 kms south of Ajmer and 112 kms north-east of Udaipur, crowned a rocky-hill at 1350 ft. above the sea level. It is said in local version in proud- "Garh to Chittorgarh, Aur Sab Gadhaiya".

Ram *Pol*, the seventh gate in the main entrance to the fort with its fortifications, palaces, towers and temples. Monuments are in ruined conditions but clearly give impression of pure *Rajputana* architecture.

The palace of Maharana Kumbha, though ruined, reflects true Rajput architecture- trabeat construction with minor use of ogee arches and domes with vertide flutings.

- (ii) UDAIPUR is founded by Maharana Udai Singh some time in 1559AD. City palace is situated on the western bank of the *Pichola* lake on the slope of a rocky hill. It is approached by main road in the city through the *Hathipol* and their *Tripolia* via *Badal pol*. There are eight beautifully carved arches or *toranas* near *Tripolia*. The oldest portion of the fort is *Rajya Angan Chowk* and *Zenana* built by Maharana Udai Singh. Its towers are crowned with cupolas, the *Sheeshmahal* with inlaid mirror work, the *Krishna Vilas*, *Radha* and Lord Krishna's stories are painted on wall of *Bhium Vilas*, peacocks in fine mosaic relief on the walls of *Mor-Chowk* of *Priyatam Vilas* and the beautifully constructed *Zenana* in the south of the palace. Due to white wash and modern cement work it is difficult to study minor details regarding combination of

Rajputana and Mughal art of building construction.

- (iii) **AMBER:** is the ancient capital of Dhundhar state which is situated 17 Km. to the north-east of Jaipur-Delhi National Highway. This walled palace crowns a rocky hill. According to an oldest inscription its history goes back to 954AD. It functioned as capital of Dhundhar state till 1727AD when Rajya Sawai Jai Singh founded a planned city Jaipur in adjacent plains.

The Amber palace, an exquisite specimen of Rajput architecture, was constructed under the guidance of Raja Man Singh in 17th century on the pattern of the Mughal palace planning.

- (iv) **JUNAGARH OF BIKANER:** This imposing fort was built by Raja Rai Singh in the last of 16th century. He was one of the outstanding *mansabdar* of Mughal emperor Akbar. It is protected by a moat and contains palaces made of red sand stone and marble with kiosks, balconies and extensive use of perforated screens.

*Suraj Pol* or the sun-gate is the main entrance to the fort. The palaces of our study are *Anup Mahal*, *Karan*

*Mahal, Rang Mahal* or palace of pleasure and structure north to the *Suraj Pol*.

The Palaces within, are adorned with massive columns, arches, cusped arches, *jali* work, a row of balconies, kiosks and towers.

### **RAJPUT ARCHITECTURE<sup>1</sup> (MAIN FEATURES)**

Architecture is the art of organizing space by creating rooms, halls, verandahs etc. To understand Rajput architecture we do not have any "intact specimen" of pre-12th century except temples. With the help of surviving forts, palaces and temples we can guess about some important features of the Rajput architecture, such as:

- i) Buildings in the form of solid mass.
- ii) Trabeate style.
- iii) Flat, pyramidal and vaulted roof.
- iv) Drooping eaves supported by brackets.
- v) Serpentine brackets.

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1. Brown, Percy- *Indian Architecture*, (Islamic Period);  
Coomarswami, A.K., *Essay in Early Indian Architecture*; Ghurye, G.S., *Rajput Architecture*.

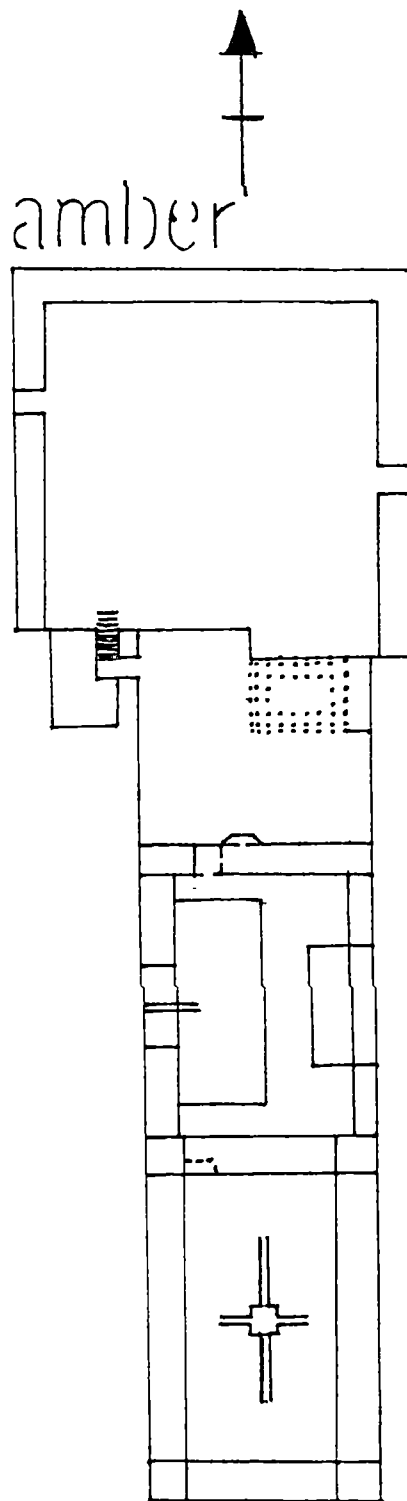
- vi) Oriel windows with hanging corners.
- vii) Extensive use of *Jali* (perforated screen).
- viii) Niches.
- ix) Surface decorated with sculpture (human and animal figures) and ornaments like *Kalash* and lotus motif, bell and chain on pillars, sign of crossed triangle (✠) and sign of action (卐) etc.
- x) Paintings with fast colours.
- xi) In-lay work. and,
- xii) Cupolas.

## AMBER

On the tradition of Udaipur, *Zenana* seems to be the oldest surviving part of the palace of Amber, built by Raja Man Singh (1552-1615). It is constructed on a regular and rectangular plan<sup>2</sup>. Even building of uniform design are surrounded by large courtyard (*Chowk*) and towers (*Burj*). On the exterior its high and unpierced walls are constructed by heavy stones and towers with cupolas (*Chhatris*)

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2. See the appended plan 4



between which box like balconies break the skyline.<sup>3</sup> These features are also common to the exterior wall of Udaipur *Zenana*.<sup>4</sup>

The first court of the Amber palace was originally constructed as a complete palace. It was not *Zenana* then, this same was most probably added when later parts of the palaces were erected.

The pillared pavilion (*Baradai*)<sup>5</sup> or twelve arched, open column hall, in the centre with its cusped arches on blastered and fluted columns, seems to be later addition than the rest of the courtyard. The courtyard was originally empty and the hall is a feature of the *Zenana* and functioned as women's *Sabha* or council hall.

The use of pitched roofs over the two southern towers and domes of northern towers appear to be original.<sup>6</sup> The

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3. See photograph nos. 33, 41

4. See Chapter I and photograph no.33

5. *Ibid*

6. The previous case for the Amber roofs are the thatched roofs in the Haram sara or so-called Jodh Bai's palace in Fatehpur Sikri.

plan & its name suggest Mughal pattern. *Diwan-i-Am* is present in the public court. The outer columns in pairs are of red sandstone and the inner ones are of marble.<sup>7</sup> 'All columns present in the structure are of the temple derived designs.<sup>8</sup> The corbels are especially carved with floral and animal figures.<sup>9</sup> The shafts of the columns are uniform throughout their height. These columns are identical with the Sabhas of Chittor and Udaipur.<sup>10</sup> The ceiling of the hall is of distinctive construction – the four curved sides rise towards a central flat rectangular roof producing an effect of a canopy. Though this form is common in Rajput and Mughal buildings. Percy brown describes the *Diwan-i-Am* imitation of the Mughal style and that it was constructed by "masons trained in Akbari style".<sup>11</sup>

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7. See photograph no.

8. *Ibid*

9. *Ibid*

10. See Chapter I and photograph no.34

11. Percy Brown, *Indian Architecture*, Vol.2, Bombay, 1942, p.119

The Mughal influence is also apparent in the other court built by Jai Singh I, the private court of *Mardana*. Because of its location between the earliest court and the *Diwan-i-Am* courtyard (*Chowk*), the boundary walls of this central court might have been built before or when the *Diwan-i-Am* Chowk was built. Open pavilion has a garden. The *Sukh Niwas*, the western pavilion is limited to the garden by water course. The western pavilion built of white marble is separated from the garden by a broad, paved terrace. This suggests an imitation of Shah Jahan's *Anguri Bagh* and *Khas Mahal*.<sup>12</sup> The eastern pavilion is in two storeys with the *Jai Mandir* below and the *Jess Mandir* above. Both are *Sheesh Mahals* with the web of small archshaped indents-<sup>13</sup> Shah Jahani's adaptation of the technique. There are many details which the Amber and Agra courts have in common-notably the cusped arches and the bangaldar roof- clearly indicate not only Mughal influence but we would like to say common ancestry of

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12. See photograph nos. 36, 37, 38

13. See photograph nos. 37, 38

the two styles. Although the planning of the Amber's court mainly based on a Mughal model.

Between the two courts, the Ganesh *Pol*<sup>14</sup> was the addition by Jai Singh I which is an entrance from the public court to private courts of the palace. The access is not direct, the gate consists of two adjacent halls and the way through them take to two right angled corners. This was probably for the defenes purpose. The Ganesh *Pol* is of two storeys. To the north, on the outer side, facing the public court, it has two storeyed facade.<sup>15</sup> To the south, the inner side, facing the private court is elevation of lower chamber– a blank wall, and upper chamber appeared to be a pavilion standing on terrace formed by the roof of the lower one. This is an immitation of Mughal half domed huge gateway like- the gateway to Akbar's tomb at Sikandra.<sup>16</sup>

Scholars are divided regarding the date of the Ganesh

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14. See photograph nos. 39, 40

15. *Ibid*

16. *Ibid*

*Pol*– some attribute it to Jai Singh I and the others to his successor Sawai Jai Singh II (1699-1744AD)<sup>17</sup>.

The fourth court- *Jaleb Chowk* is an addition to the Amber Palace by Sawai Jai Singh II. This court was added to the palace's fortification perhaps to serve as a parade ground for the *Jaleb-dars*<sup>18</sup> (the palace guards). The gates of the court are the *Suraj Pol* to the east and the *Chand Pol* to the west. They are in Rajput style- pointed arch in a four square tower and trabeate galleries.

The four courts of Amber palace together span a period of more than a century and were added with no concern for the symmetry- built along a ridge of the hill and form a single line.<sup>19</sup>

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17. Ferguson, James, *History of Indian & Eastern Architecture*, Vol.2 p.117; Goetz, Hermann- 'Rajput School' (1966) preproduction 1978, p.15.

18. Maharaja Sawai Man Singh II Museum, City Palace, Jaipur, Drawing, Collection Lib. Nos. 76

19. See the ground plan 4.

## CHITTOR AND UDAIPUR

Hill of Chittor is about five kms long and upto 800 mt wide; rising upto 500 feet above the surrounding plains.<sup>20</sup> it has the fort of chitor. This fort was not only the capital of Mewar but was also the centre of Rajput activities. After the sack of the fort by Alauddin Khalji in 1303AD and by Bahadur Shah of Gujrat in 1535AD the fort was recovered by the Rajputs but the third attack by Akbar in 1567AD<sup>21</sup> broke its importance for long period, although it was given back to the Rajputs but it did not serve as the capital.

An important palace was built at chitor, in the 16thc by Rana Ratan Singh II (1528-31AD) near the north-end of the fort, on the west side of the small Ratnesh war lake<sup>22</sup>.

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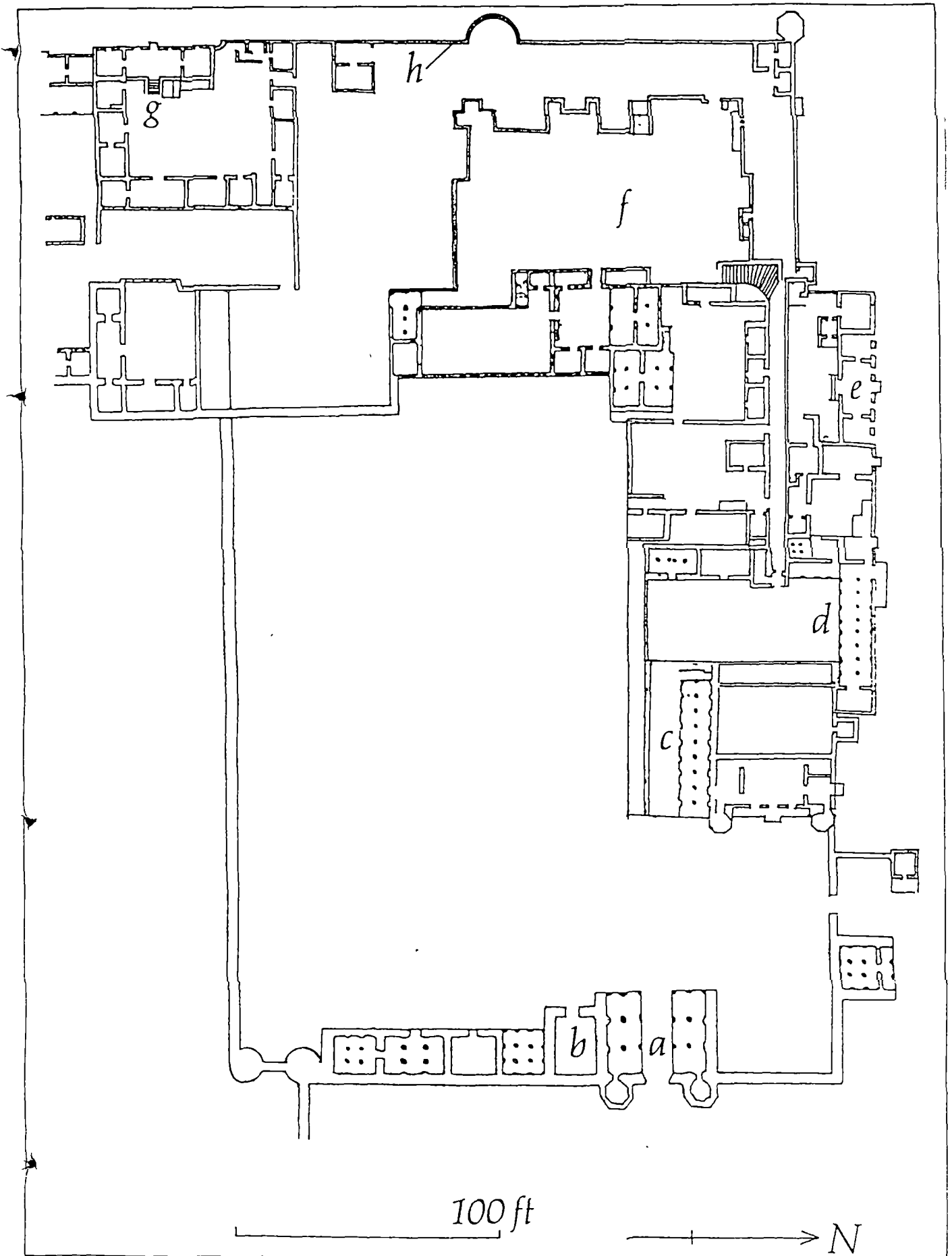
20. Different authors give different name, but no one is conclusive. Jodh Singh Mehta, *Abu to Udaipur*, Delhi, 1970, p.170, Goyal, Suresh, *Chittorgarh*, Udaipur, 1983, p.45.

21. See appended ground plan 1

22. See photograph no.1

chittor

P 1



This palace is rectangular in plan<sup>23</sup> and is enclosed by high wall. This wall has massive towers, one at each corner and in the centre of each sides, probably to give extra strength and also to break monotony of the continuous wall. This rectangular form is less evident because palace is in ruined condition and has been altered too.

The towers are octagonal in plan, slightly tapered, decorated with string courses and surmounted with round domes. The interior of Ratan Singh's palace is not symmetrical and it has two small apartments but they are also in ruined condition, the southern portion was later on converted into *Zanana*. The whole palace is constructed of stone, original plaster covering the surface is still evident in patches.

The ogee painted arch is used extensively<sup>24</sup> at the cost of temple columns of traditional style. A gateway (high ogee arch) which gives access to a small but walled compound to the south of the palace.

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23. See photograph nos. 2 & 3

24. See photograph nos. 4 & 5

Patta and Jaimal were two heroes of the battle of 1567AD and their palaces are amongst the last monuments probably built before the seize of 1567AD.

Pattas palace is a true imitation of some part/portion of the Kumbha's palace. Details of flight of steps before the entrance and the decorative pattern are also similar to Kumbha's palace.<sup>25</sup> The northern wall is stepped at the top and on the inner surface of surrounding wall there is a staircase— which leads from the roof to high balcony.

Jaimal's palace is quite different in plan. On the exterior it looks like a solid block. Its walls has centrally placed door and simple strong mouldings at the wall give three storey effect, though this is double storeyed building. The ground storey consists of big central chamber flanked by four small rooms, two on each side. The flight of steps are provided on the front of the building to reach the upper storey, a roof terrace is flanked by two rooms covered by

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25. Abul Fazal *Akbarnama* (tr.) Vol. 2 p-465, Udaipur is described as 'The Rana's Capital'.

vaulted roofs. Wall of this palace is covered by white plasters but without any decoration.

There are few other surviving structures in the Chittor fort. These structures belong to the same period as that of the palace. They are in ruined condition, but those structures also give same architectural features and thus throw a light on the Rajput style which can be described as simple but the most important characteristic of Hindu tradition.<sup>26</sup>

## UDAIPUR

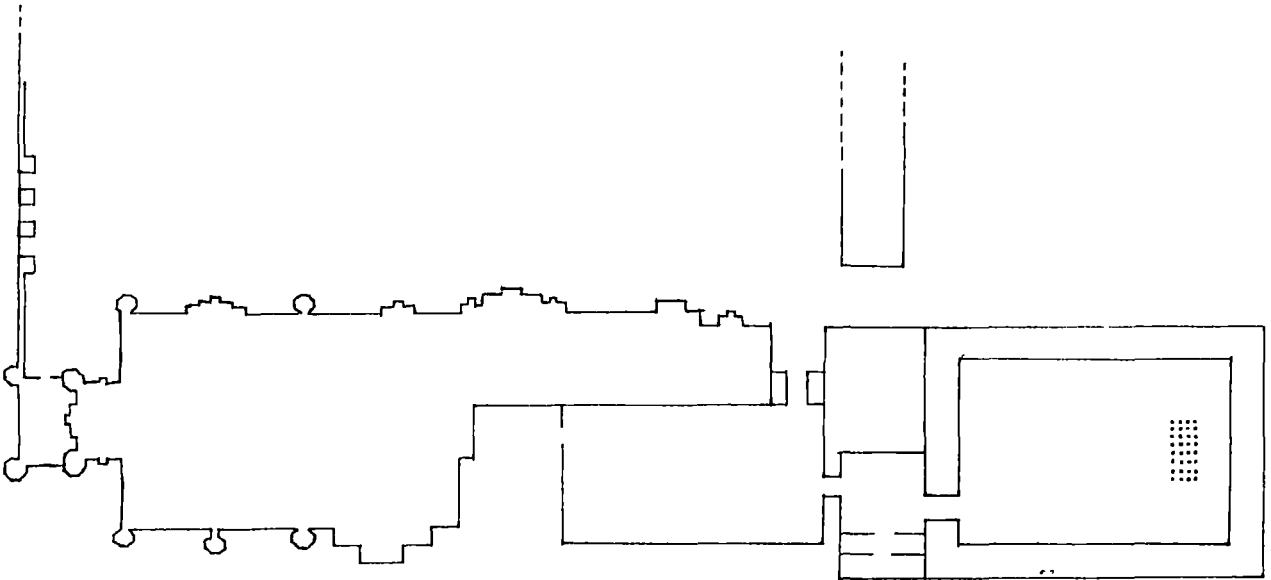
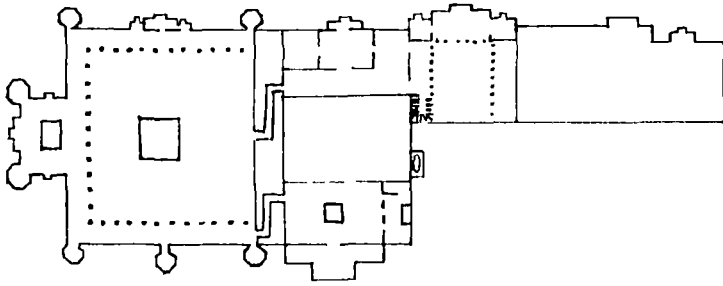
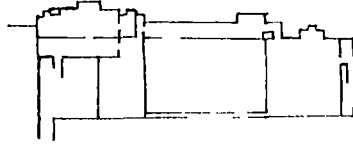
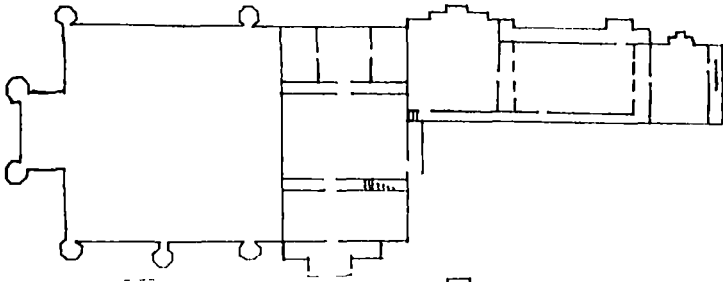
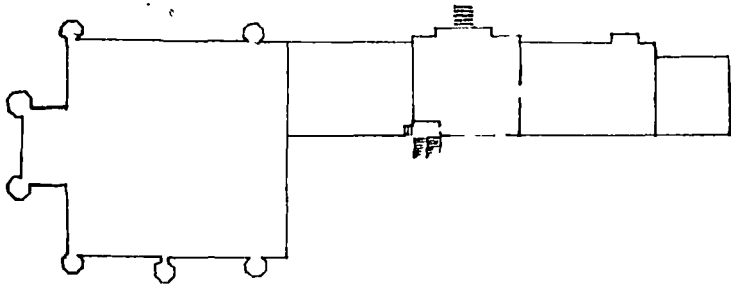
The seize of Chittorgarh in 1567AD was not the cause of the foundation of Udaipur. Abul Fazl writes that at the time of Akbar's seize Udai Singh was sought in Udaipur<sup>27</sup> which clearly shows that the town already existed. An artificial lake the *Pichola* lake, which is within the town was founded sometime in 14th C, further suggest that some sort of settlement existed at Udaipur before it became Capital. However, the name Udaipur suggests, date from

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26. *Ibid*

27. See appended ground plan 2

uclairpur



Udai Singh's association with the place,<sup>28</sup> and also the oldest parts of the Udaipur city palace/*garh* palace date from the period after 1567AD.

The *garh* palace is situated at the south-east bank of the *Pichola* lake. The earliest parts are the large *Sabha* at the south end of the *Mardana* of the palace, the *Silah Khana* to the north, *Rajya Angan Chowk* erected above the *Silah Khana* and the rooms which flank the *chowk* the three chambers denoted as treasury on its east and the temple *Nou Chowki Dhuni Mata* on its west. The *Zanana* lies to the south of the *Sabha* divides it into two parts- the *Badal Mahal* palace and the rooms surrounding the *Laxmi Chowk*.<sup>29</sup>

Its style imitates the architectural features of old Capital-Chittorgarh-trabeate, temple columns, corbelled capitals<sup>30</sup>. The construction of arches is used in functional manner, not with aesthetic value. The huge vaulted roof of

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28. See photograph nos. 11, 12, 13

29. See photograph no. 6

30. See photograph no. 10

*Silah Khana*<sup>31</sup> support many storeys of palace apartments erected on top of it. Before its use as *Silah Khana* it might have been used as the residential building or for holding the ceremonies in the palace.

The *jharokhas* projecting from the out side facade of the *Badal Mahal*<sup>32</sup> of *Zenana*, give impact of Chittor. But columns used in Udaipur are more carved.

The *Badi Pol*, the gateway between the palace building and the town, derives both its name and its function as of Chittor. *Suraj Pol* gives access to the palace from the eastern edge. It is the line with the *Toran Pol*<sup>33</sup> the main gate of the palace buildings. The *Toran Pol*, leads into a large *chowk*, flanked by two smaller *chowk* which leads further to the *Zenana* and *Mardana* respectively.

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31. See photograph no. 71

32. Andrew Topsfield, *Paintings from Rajasthan in the National Gallery of Victoria*, Melbourne, 1980, Plate No. 4

33. See photograph no. 11

*Mardana Deodhi* has cusped arches which is a later alteration because early paintings show use of pointed arch.<sup>34</sup>

The structures around the main court of the *Zanana*, though much altered but also gives patches of original features, particularly the southern and western ranges. On the ground floor there is cloister with two columns supporting the lintels<sup>35</sup>. These columns carved from grey stone in *Mardana Sabha* and *Rajya Angan Chowk* area also made of same stone. Carved brackets are supporting eaves<sup>36</sup>. At the back of the cloister there are small enclosed chambers. The upper storey, the main accommodation storey, is divided into apartments perhaps for each *rani*. If we compare 18th Century murals painted in the *Chitraun Rai Burj* of the *Mardana* with the present *Zanana* than we find that west ranges has been much altered.

*Zanana* is dedicated to Raja Karan Singh (1620-

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34. See photograph no. 11

35. Goetz, Hermann, *op.cit.* pp. 95-106.

36. Compare photographs of Chittor and Udaipur (1 to 17)

28AD)<sup>37</sup> but use of temple column suggests earlier date which is more likely to be contemporary with oldest part of the palace. Whatever may be its date, but it is clear that the architects of the oldest part of the palace seems to be the reproduction of the Chittor.<sup>38</sup>

Two areas of the palace in particular were developed some time after 1614AD. The first is the area around *Rajya Angan Chowk*<sup>39</sup> and the second is the area above *Sabha* and *Mardana Deodhi*. The flight of stairs leads to the *chowk* which was enclosed to form the *Ganesh Deodhi*, *Chandra Mahal* was constructed above the *Nau Choki Dhuni Mata*<sup>40</sup> and *Dilkushal-Mahal*. Group of four rooms including *Kanch-ki-Burj* and *Chitraun-ki-Buj*, was constructed opposite and above the treasuries. Room of *Dilkushal*

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37. Compare photographs of Chittor and Udaipur.

38. *Ibid*

39. See photograph nos. 12, 14, 15

40. This court is an imitation of Mughal Magnificence, Shahjahan see Goetz, Hermann, '*The First Golden Age of Udaipur*', p.104

*Mahal* forms one storey of a tower. One of the rooms of *Dilkhushal Mahal* has a canopy ceiling of the same form as *Diwan-i-Am* of Amber. *Chandra Mahal* has series of cusped arches and these cusped arches show Mewari variation though these are not usually true arches but can be defined as a pair of brackets which meet at lintels at the centre. Mewari variation means these pair of brackets do not meet but leave the lintel clearly visible between them<sup>41</sup> on the eastern side, the rooms of the *Chandra Mahal* overlooks activities of the *Rajya Angan Chowk*.

A new court, the *Mor Chowk* was built on the roof of the *Sabha* with a veranda overlooking the eastern terrace. This *chowk* is flanked by *Manak Mahal* and *Surya Chopar* to north and south respectively. *Mor chowk* was mainly used for darbars. The arches filled with plasters clearly indicates that the veranda of *Mor Chowk* was originally open.

The largest single addition to the palace is *Aman Vilas* built by Raja Amar Singh II (1698-1710AD) situated on

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41. Topsfield Andrew *op.cit.*, Cat No. 244 pp. 154-155.

top of the small hill or court is built on solid ground. In the centre of the *chowk* is a square tank the *Chowk* is surrounded by cloisters which is raised slightly higher than the level of the *chowk*. The *Chajjas* are decorated with carved tassels and rosettes, and capitals are very small.<sup>42</sup> Before the construction of *Amar Chowk* this area was used as royal playground and other activities— like playing Holi and laying in the tank and smoking a hookah.<sup>43</sup>

After the *Amar Chowk*, the area around the *Mor Chowk* was further developed *Moti Mahal*, the *Bhim Vilas* and *Nila Mahal* constructed over the *Manah Mahal*, *Moti Mahal* is a *Sheesh Mahal* and *Bhim Vilas* is a small *Puja room*.

## THE FORT OF JODHPUR AND BIKANER

The state located in the desert reflect different Rajput style of architecture i.e. the extensive use of perforated screen (*Jali*)<sup>44</sup>. In Jodhpur and Bikaner, *jali* screen are not

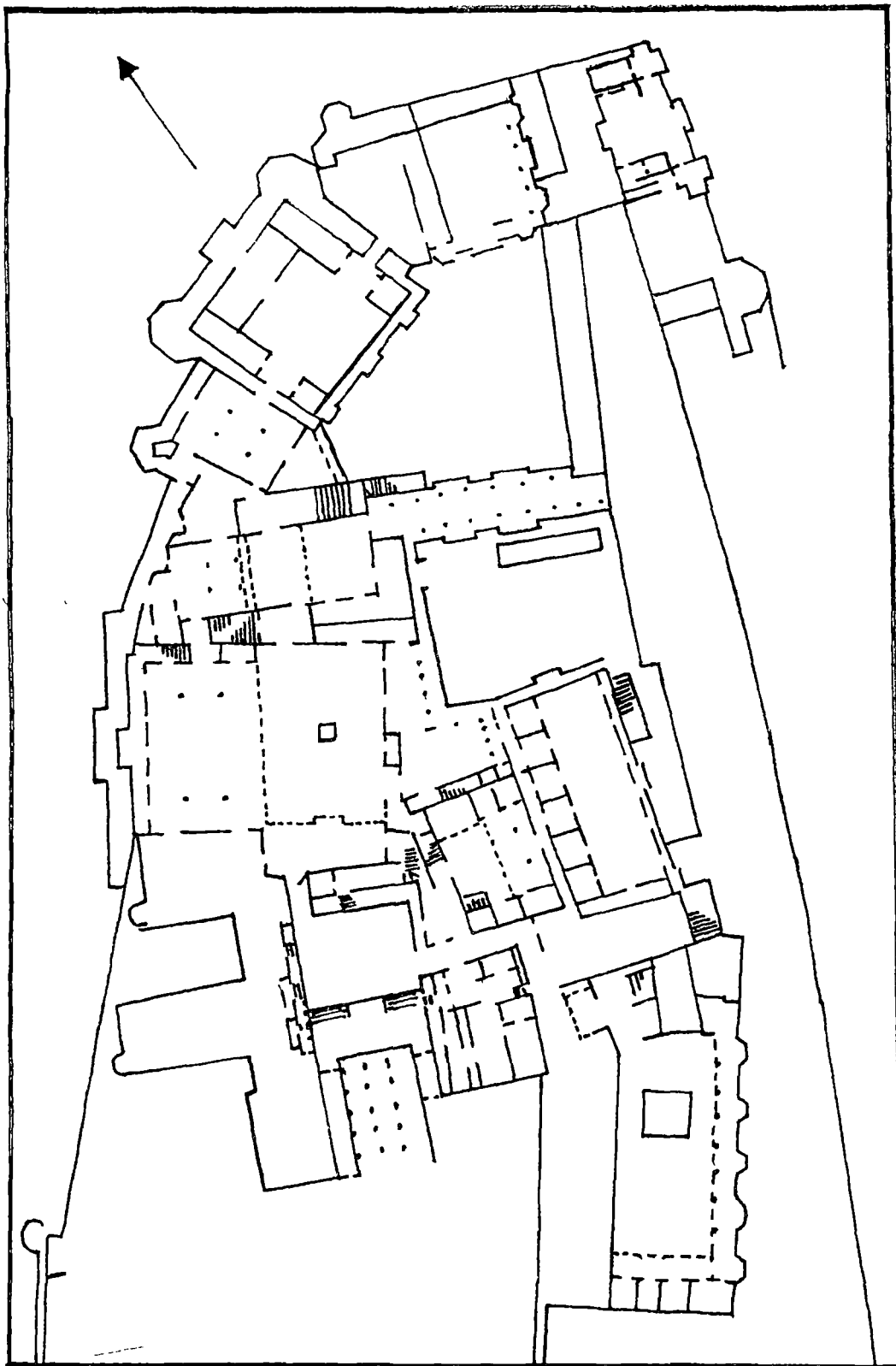
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42. See photograph nos.18, 19, 20

43. See photograph no. 19,

44. *Ibid*

jodhpur



only used across windows but in panels in large areas of walls as well, and *jali* is used not only in the *Zananas*<sup>45</sup> as present in Mughal buildings but occasionally even in the *Mardana* also. Here in Jodhpur and Bikaner the *jali* work is so extensive that the walls are like a thin perforated screens which protect the apartments from the sunlight while allow the breeze. In addition to these functional aspects the *jalis* are beautifully carved. They represent the native climate and also the local building material. In the *jali* work the common patterns are used i.e. the *Chaupad* design<sup>46</sup> (a cheque board in which the alternate sequence are holes) and *Chaufulia* (a regular arrangement of four petal flower heads with diamond shaped space between them). The other patterns are geometrical designs.

Other important feature of Rajput style is the extensive use of the bangaldar roof<sup>47</sup>, in modified form (original form found in Bengal) which is imitated in

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45. See photograph no. 18

46. See photograph no. 19

47. See photograph no. 20

Shahjahan's building in Agra fort. Rajputs used it in oriel windows which is made by an exaggerated bent chajja. In these places changed form is used to cover shallow projected balconies.<sup>48</sup> These bangaldar roofs eaves are powerful motifs.

Extensive use of bangaldar *chajja* and *jali* are seen here at Jodhpur and Bikaner. Here (also in Jaisalmer) the architectural traditions and particularly the tradition of decorative carving in buildings with little modification is seen in modern building. The palace of the forts of Jodhpur and Bikaner underwent extensive alteration over a long period.

## JODHPUR

The circumstances, the duties of Mughal service, and the absence of Rajput rulers away from their Capitals, is perhaps reflected in palace construction, which contain more space for *Zanana* than for *Mardana*. In the *garh* palace of Mahrangarh about two third part is dedicated to *Zanana*.

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48. See photograph no. 19

A major part of Mahrangarh *Zanana* is *Moti Mahal Chowk*. The north, east and southern part of this *Zanana*<sup>49</sup> are similar to Bikaner (*Anup Mahal Chowk*) with number of *Jharokhas* filled with perforated screens and their slight projections are covered by bangaldar oriel windows. Here *jharokhas* and entire facade of the upper storeys is corbelled out and extensive use of *jalis* give the appearance of hanging nitted curtains.<sup>50</sup>

*Moti Mahal* can be dated to the reign of Maharaja Jaswant Singh and many other parts of the palace were constructed during the 30 years of Mughal service following his reign (1678-1707AD). Jaswant Singh was considered an unreliable servant of the empire. When he died without his successor,<sup>51</sup> Aurangzeb annexed Jodhpur to save Mughal empire from further trouble. This most probably stopped building construction in the fort. After

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49. See photograph nos. 18, 20

50. *Hukamat Ri Bahi* (C. 1707 AD) ed. Satish Chandra et al. Delhi, 1976, pp. 244-56.

51. See photograph nos. 25, 26

Aurangzeb's death in 1707AD. Jaswant Singh's posthumous son Ajit Singh recovered his kingdom in the 18th century. Rest buildings were erected by Ajit Singh in early 18th century.

To the south of the *Moti Vilas* is another part of *Zanana* which seems to be slightly older. It is suggested by the high plinth. Such high plinths are not formed in the rest of the palace particularly the *Zanana*. Thus *Moti Vilas* also has cloisters but not plinth. The decorative carvings is also of a high quality and this further suggests that it predates the *Moti Vilas*. On the evidence of the plinth<sup>52</sup> and the carving, the southern part of the *Zanana* can be dated to no later than the beginning of Jaswant Singh's reign (1640AD).

The further part of the Mehrangarh *Zanana* cover large area to the east of the above described parts of *Zanana* and it also include the structures around *Shringar Choki-Chowk*. Like oldest portion in these structures, the decorative carvings are not painted. The lower storey is

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52. See photograph nos. 19, 25, 26

quite distinct from the upper ones, having separate access, and its rooms do not form the part of *Zenana*. The structures around *Shingar Chowki Chowk* are only one room deep allowing a cool air.

The facades of the upper storey form a series of perforated screen through which the royal women could see the activities in *Shingar Choki Chowk*. Most probably because of this, the structure to the north of the *chowk* took its name- *Jhanki Mahal*.

Structures details of the structure around *Singar Choki Chowk* was probably constructed in two stages. Southern block seems to be the later addition: it is one storey higher than the other structures and other details also do not join. The first stage, of construction— buildings of the north, west and south-east structures, may go back to Mughal occupation and probably belong close to Jaswant Singh's reign.

Another important feature is new type of capitals on the piers which is peculiar to Mehrangarh. It consists of a

banded moulding at the top of the pier and a scroll at the springing of the arch.<sup>53</sup> The Hall- The *Moti Mahal* is commonly attributed to the *Sawai* Raja Sur Singh (1595-1619AD) but the other feature like the matured form of cusped arch<sup>54</sup> is dated not before 1630AD. It might have served as *Diwan-i-Am*. It is beautifully decorated room, with a mirror worked ceiling and lustrous *chunam* covering all the other surfaces. Running around the wall roughly 90cm above the floor level is a triple band of niches probably to keep a lamp.

### BIKANER

Raja Rai Singh, 1571-1611AD founded Bikaner's original fort which is too small, constructed Junagarh fort, a new and larger one, some time between 1588AD and 1593AD, roughly a century after the foundation of Bikaner.

This palace stand on a east-west axis with a large open space in front of its northern facade.<sup>55</sup> The *Suraj Pol* gives

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53. See photograph no. 28

54. *Ibid*

55. See photograph nos. 28, 29

access to this open space, in the starting point of the palace both historically and physically, for it was built by Rai Singh in 1593AD. Although its opening is a true pointed arch with its simple trabeate *jharokhas* and galleary - a unique combination<sup>56</sup>. The gallery perhaps served as a *Nakkhar Khena* (a drum house) from which announcement was made at the time of arrival or departure of the king. The *Suraj Pol* is being built by yellow sand-stone and defies from most of the palaces of Junagarh and it is said that the mines were not discovered till the end of Rai Singh's reign<sup>57</sup> and the building material for the oldest part of the palace seems to be brought from Jaisalmer<sup>58</sup>. The oldest apartment probably built by Rai Singh is a *Lal Niwas* in the north of the *Karan Mahal Chowk*. It is of unusual shape and

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56. Goetz, Hermann, *Art & Architecture of Bikaner State*, Oxford, 1856, p.71.

57. *Ibid*, p. 72; Srivastava, Vijay Shankar, 'Junagadha Fort, Bikaner',. *Son of the Soil, Maharaja Ganga Singh* ed. Y.P. Singh, 1981, pp., 225, 227-28.

58. See photograph nos. 30, 31

proportions: the ceiling is low in relation to the length of the room, and at its western and eastern ends the room widens abruptly towards the south. The projecting parts of the upper storey are supported on columns. In front of the central part of the room columns rise to the full height of the two storey. These columns are of octagonal in shape and are peculiar to Bikaner.<sup>59</sup> These may have been a common feature in older parts of the palace which are now lost.

Inside the *Lal Niwas* every surface is richly painted with regular floral motifs, in red and gold on a white base. The balconies overlooking the activities of the *chowk* to the south, are fitted with *Jali* which is an example of the use of *Jali* in the Mardana.<sup>60</sup>

Other major apartment of the palace is *Karan Mahal*, on the opposite side of the *chowk*, built by Raja karan Singh

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59. Sehgal, K.K., *Bikaner*, Rajasthan District Gazetters, Jaipur, 1972, p.39. Srivastava, *op.cit.* p-227, (the dates of Anup Singh reign are disputed).

60. Goetz, Hermann, *op.cit.* P-70. Who gives 1674-98AD.

some time between 1631-69AD.<sup>61</sup> Its dimension gives impression of a *darbar hall*. Ceiling is supported by arcade of cusped arches spanned over blastered and fluted columns. These columns imitated Shahjahan's architecture, as style of their arrangement is very simple which is not present in emperor's buildings. This hall leads to the *chowk*. On the side walls there is a false arcade. Dado breaks the monotony of the lower parts of the plasters. This dado and the decoration of the ceiling seems to be later addition. Dating from Raja Anup Singh's reign (1669-98AD),<sup>62</sup> Anup Singh's another construction is the *Anup Mahal Chowk* and its ranges, located at the west-end of the palaces. The upper storey of the ranges served as a *Zanana* and its facade is decorated with projected *Jharokhas* filled with *jali* work and surmounted with bangaladar roof<sup>63</sup> and their arrangement is symmetrical. Ground storey is the *Anup Mahal*. This room has a recess in the back of the wall

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61. See photograph no.32

62. See photograph no. 31

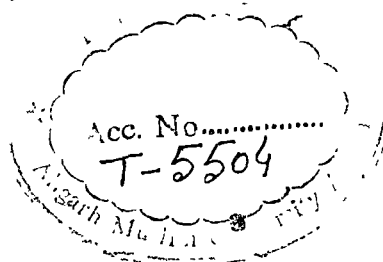
63. *Ibid*

(probably to accommodate the seat/*gaddi* of the king) and it seems that it was the *Diwan-i-Khas*.<sup>64</sup> From the inner side it is decorated with plaster mouldings, red and gold paint, mirror work and inlay coloured glass. The ground storey of the north side of the chowk has two rooms names as *Badal Madal*. Each of the room has a *gaddi* recess like *Anup Mahal* and a canopy from ceiling designed as *Diwan-i-Am* of the Amber palace. Opposite the northern range is the judicial court. In addition to these structures a corridor gives way to the chambers on the south and make a projection in the south front of the palace. All the rooms in these sides are small and are profusely decorated, particularly the southern most chamber– the *Sheesh Mahal*. This corridor has perforated screens with holes fitted with coloured glasses. It is said that these palaces are an example of Mughal influence<sup>65</sup> but if we go through these palaces, we find that they are typically Rajput in style, as the palace

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64. Sharma, G.N., *Social Life in Medieval Rajasthan*, 1968, P.46.

65. See photograph no. 32



is simple rather than a group of isolated structure on the Mughal pattern. Original parts are located in the centre of fort and only 18th c. or modern period structures are located near the forts entrance<sup>66</sup>. Such design is not in any case a Mughal arrangement and it is not found in either of the Mughal forts of Fatehpur Sikri, Agra and Delhi, though it is found in Jodhpur.

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66. Sharma, G.N. *op.cit.*



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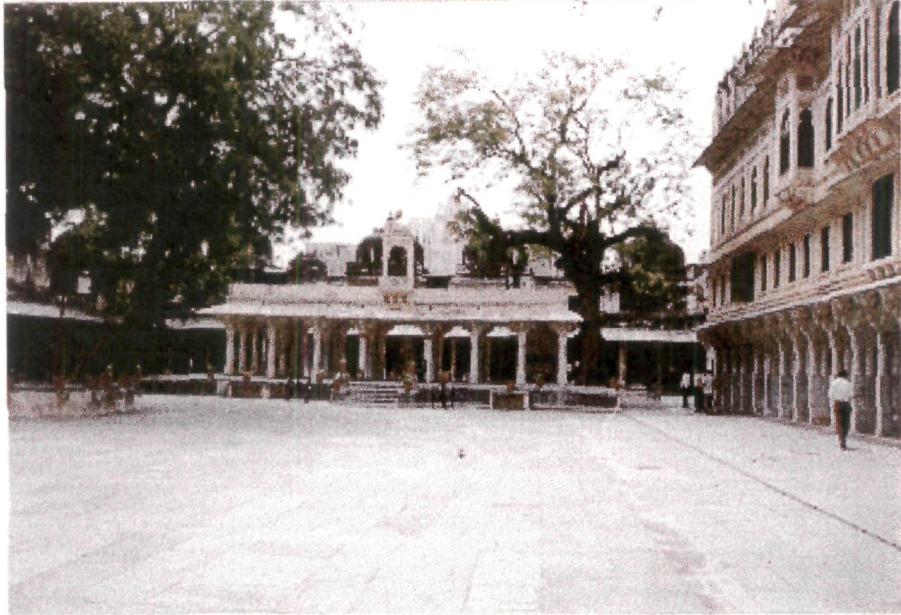
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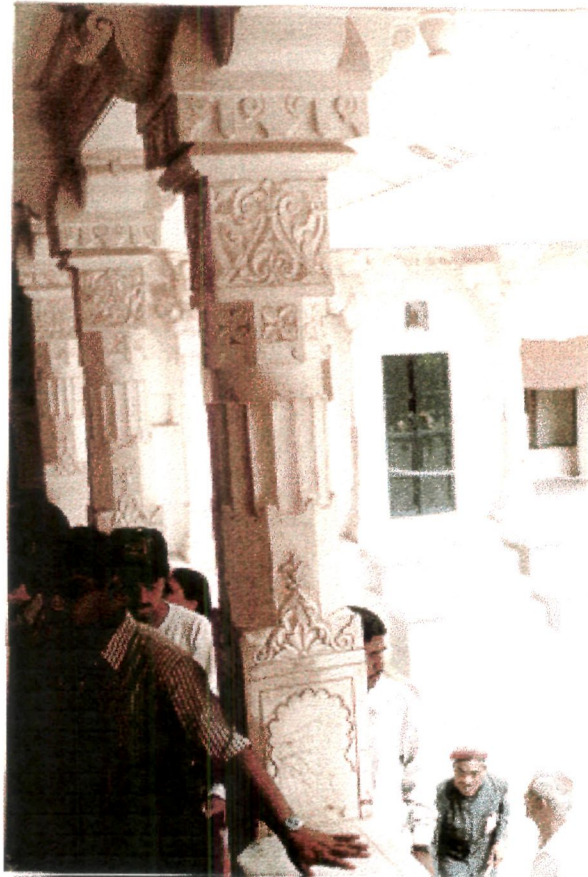
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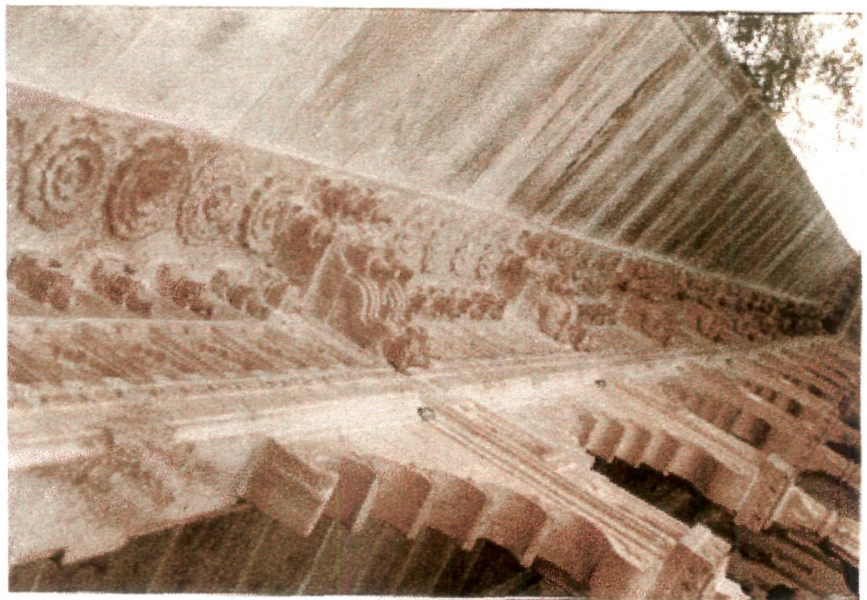
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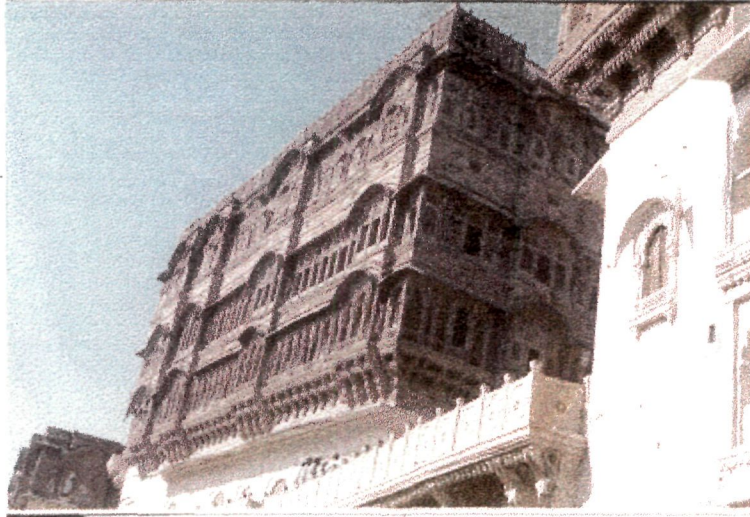
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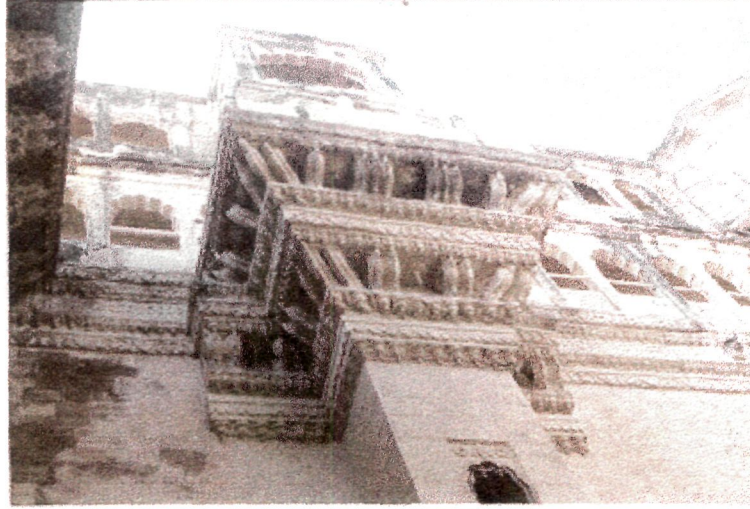
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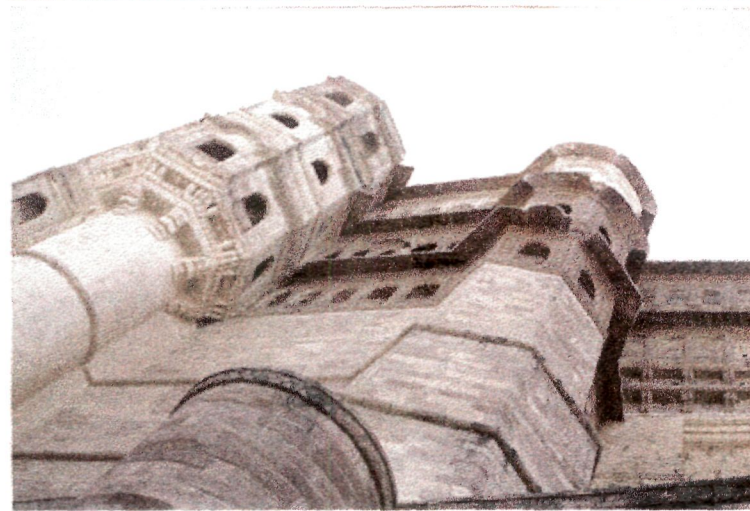
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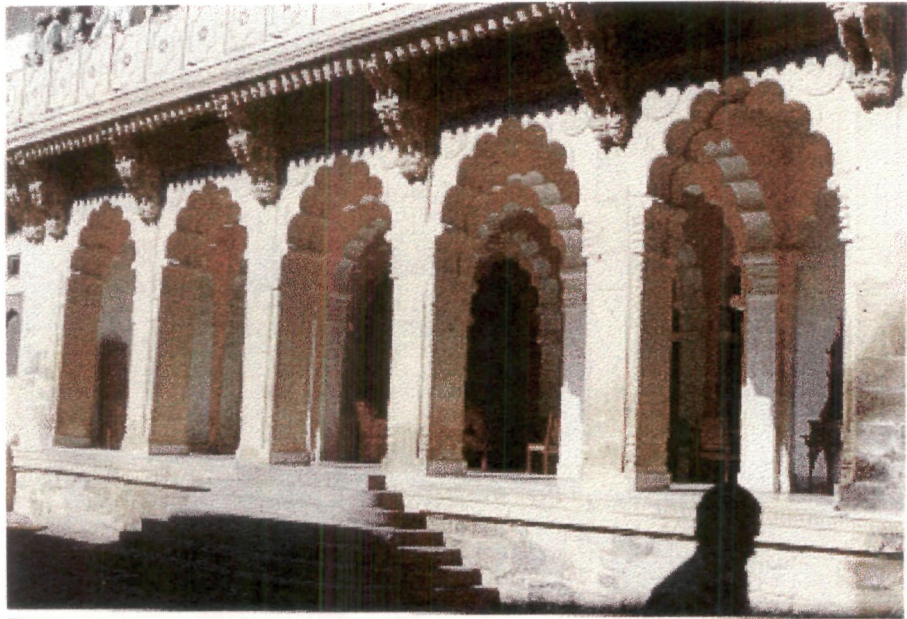
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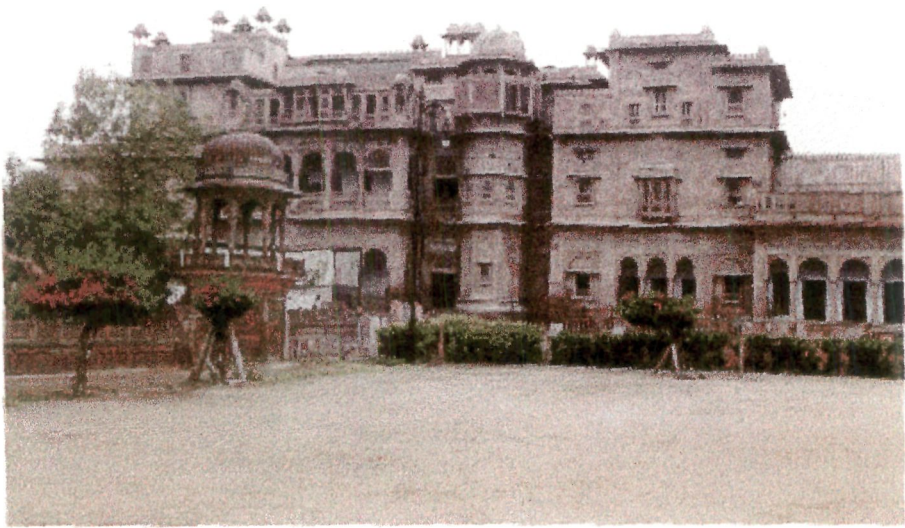
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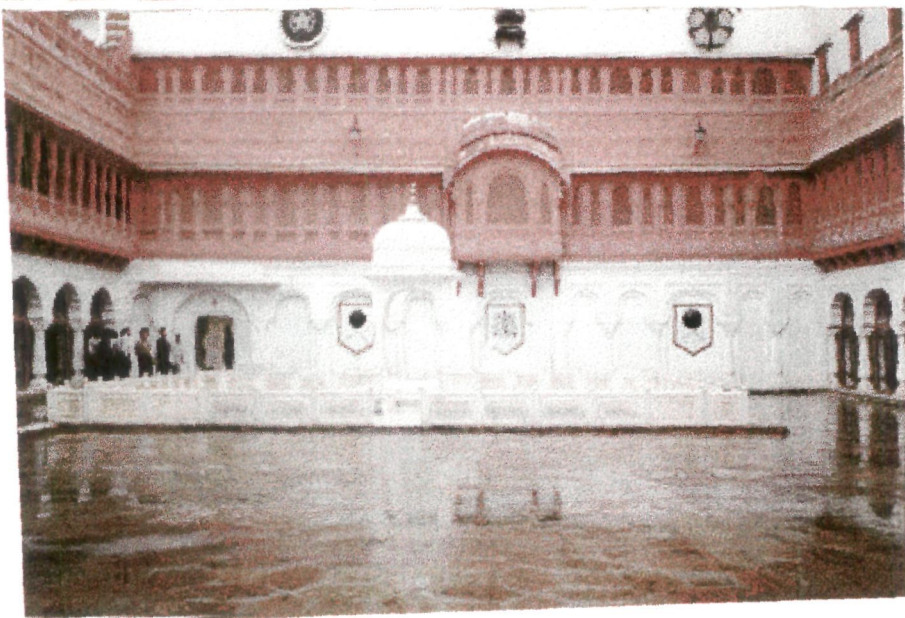
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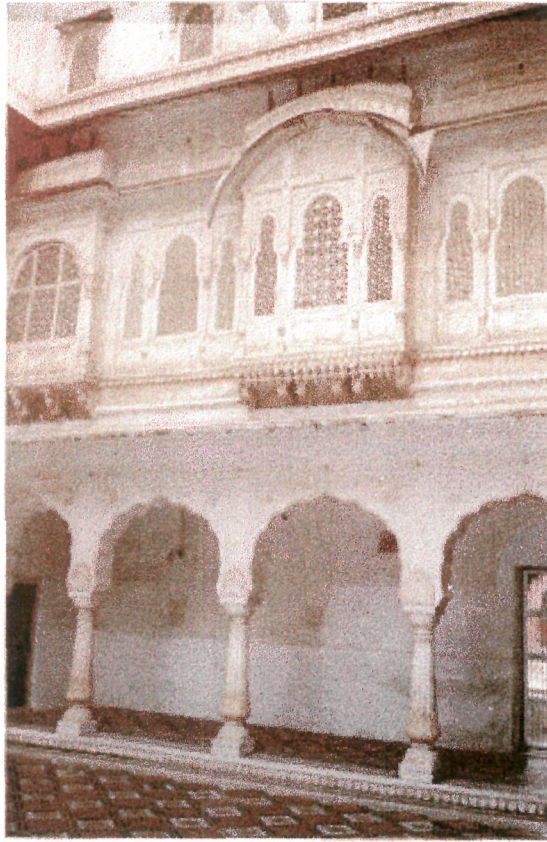
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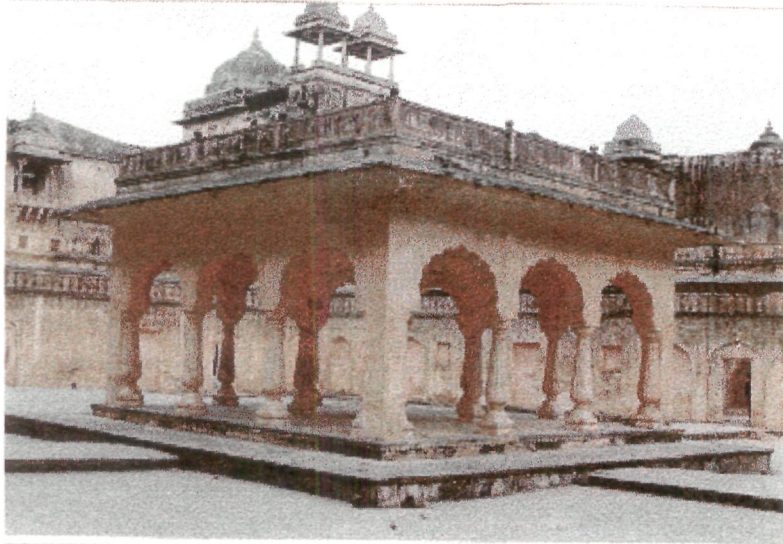
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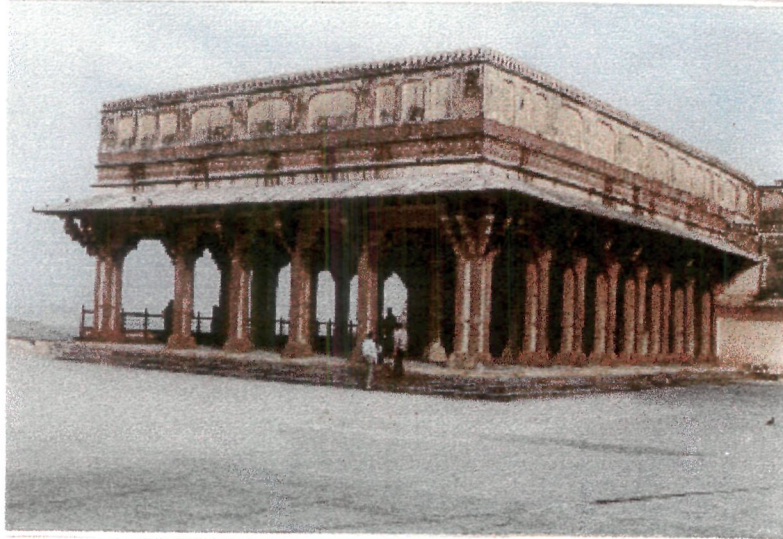
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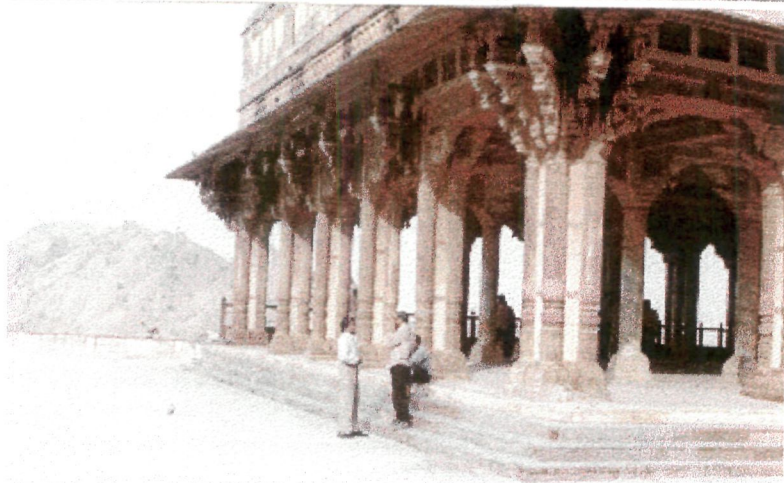
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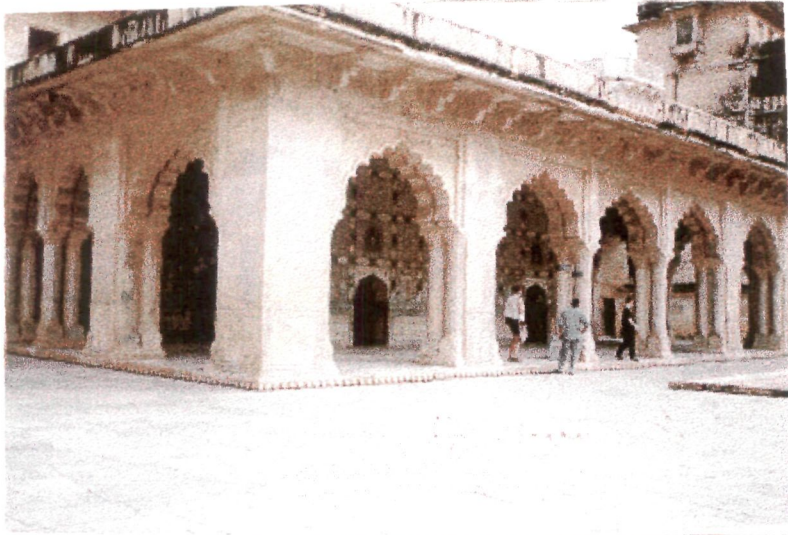
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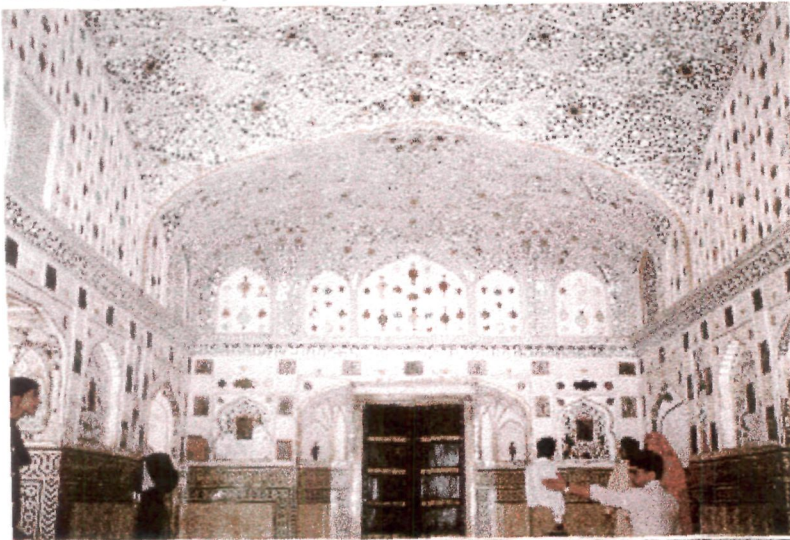
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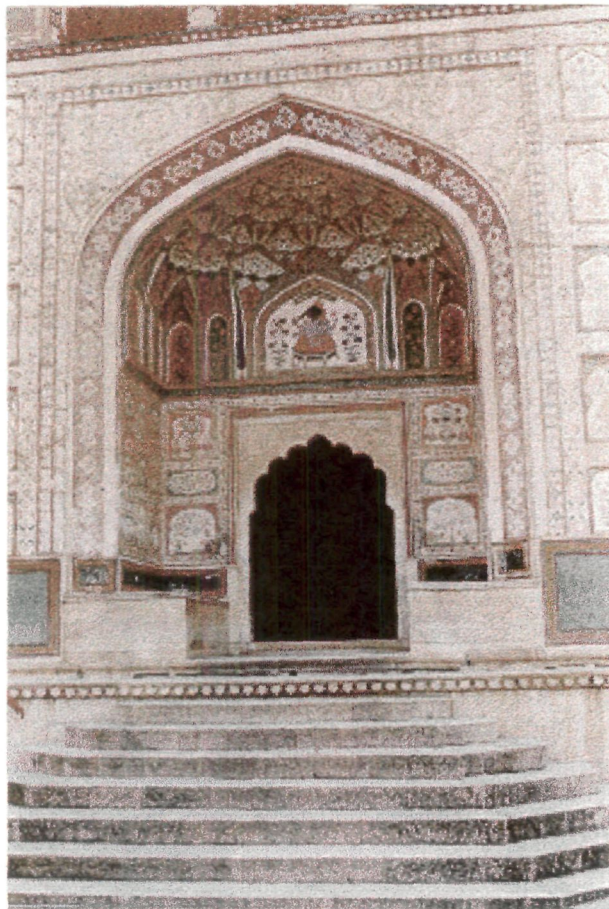
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## CHAPTER-IV

### MUGHAL ARCHITECTURE

As Abul Fazl's account implies, the Mughal forts and palaces were much more than imperial residences; they served as emblems of power and wealth designed to dazzle and cow the native *Rajas* who attended their overlord's court. This political function, as well as changes in taste ensured that the construction programme was lavish and continuous. Akbar's successors were not content with the palaces that he gifted to them but built their own as well. Sometimes they even demolished earlier structures to make space for new buildings. Apart from forts and palaces, the two other most important types of Mughal buildings are mosques and tombs.

The Mughals were foreign invaders of India, their architectural style was not wholly alien art-form important from and they did not construct Central Asian Building on Indian soil. The first two Mughal rulers, Babur and Humayun, in fact construct a little structures, probably due to little opportunity. The Mughal building programme

became highly productive during the reign of Akbar, so that time as well as politics divided Mughal architecture from any Central Asian buildings.

The emperors imported many ideas, and sometimes even architects, from neighbouring parts of Muslim world, such as Persia. But they depended considerably on Indian craftsmen and builders. India had centuries long architectural tradition of its own, developed in temples and palaces of Buddhists, Jains and Hindus with its deep and figurative stone-carving and particularly a preference for organic rather than mathematical form - typical of most Islamic design. But this difference could not prevent Muslim patrons from employing Indian masons in the construction of their mosques, tombs and palaces. Aware of, and partly influenced by Persian design, it remained different, because of the west Indian influence.

Earlier Muslim rulers in India had, of course, faced the same situation, so that in fact India already had its own Islamic tradition which had been developing there since end of the 12th c. before the advent of Mughals and which

had always depended on the contribution of Indian craftsmen.

The degree of Hindu, Buddhist and Jain contribution at any particular time was subjective. Akbar, constantly and constantly, was an enthusiast of Hindu craftsmanship and design. Though some of the buildings of his reign are markedly Islamic, many are almost entirely Hindu in style, especially his palace buildings in Fatehpur Sikri and Agra. In the reign of Shahjahan the two traditions were resolved to form a new one, and the distinctive and mature Mughal style was achieved. Shahjahan's buildings are also distinguished by a much greater refinement, especially in the decoration.

### **MUGHAL ARCHITECTURE (MAIN FEATURES)<sup>1</sup>**

At the time of establishment of Delhi Sultanate the Turks were armed forces and horsemen who could not make

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1. Nath, R., *History of Mughal Architecture*, Vol. II & III New Delhi 1994. Brown, Percy- *Indian Architecture (Islamic Period)*.

impression on Indian architecture because they did not bring architects and masons with them. But later on they introduced islamic building techniques with construction of true arch, squinches, domes and Islamic decorative designs to the Indo-architectural techniques. When the Mughals conquered northern- India, they had felt that they now belong to India. It was Akbar who was not only the first to erect a capital city of his own but also synthesised Central Asian features with architectural features of different schools of art and architecture particularly west Indian.

Main featurers of Mughal architecture introduced were:

- i) Building arranged separately like *Diwan-i-Am*, *Diwan-i-Khas* and private chambers etc.
- ii) Half domed gateway
- iii) Development of hemi-spherical to bulbous domes,
- iv) Drooping eaves
- v) Multi-tier brackets.
- vi) Chamsfered angle.

- vii) Use of marble
- viii) White polished plaster.
- ix) Pietra dura and in-lay work
- x) Use of iron nails and chains to strengthen the wall and
- xi) *Char-bagh* pattern, running water channels with sunk fountains etc.

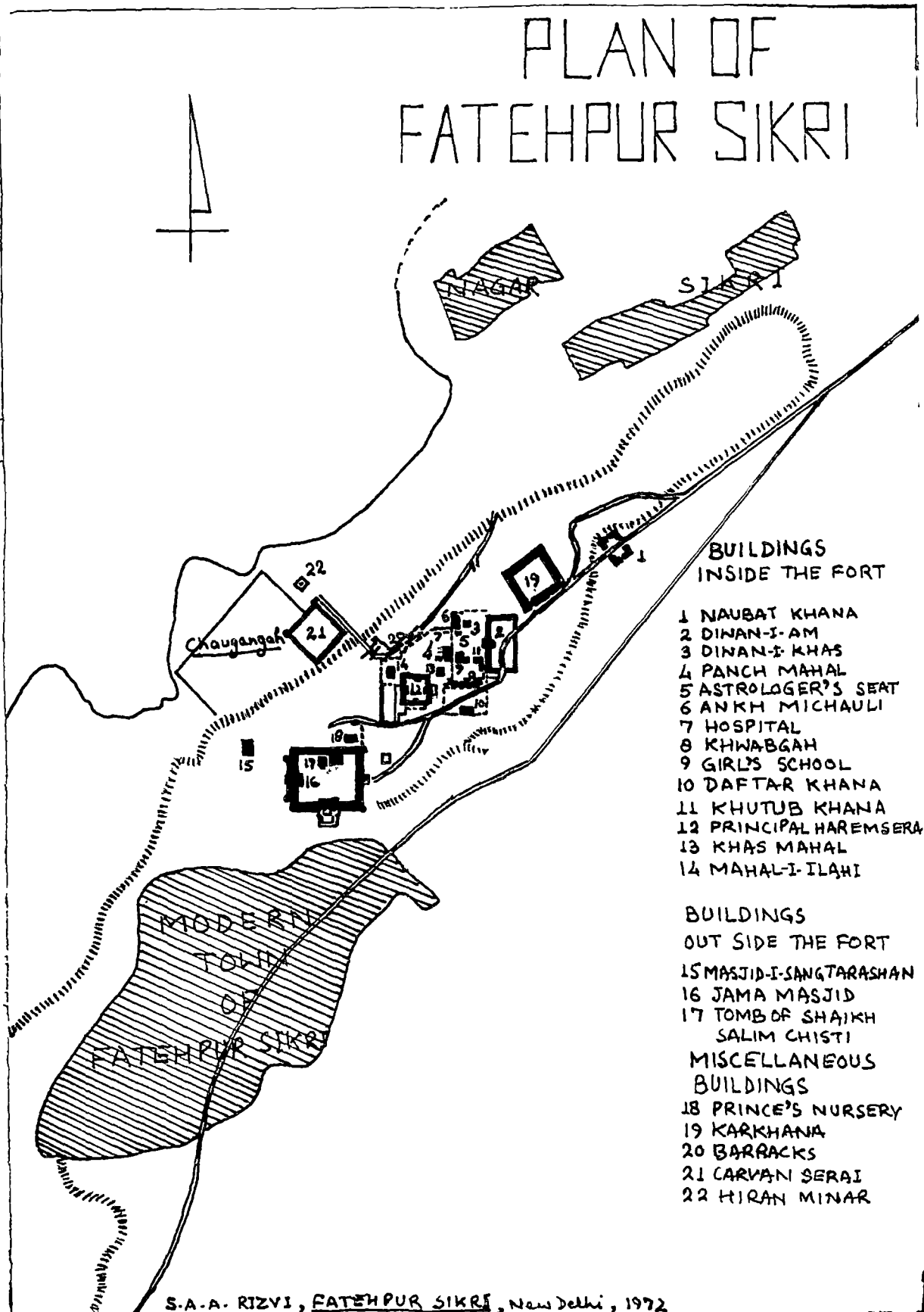
## FATEHPUR SIKRI<sup>2</sup>

The palace and mosque stand on the top of the ridge which runs in a straight line, in south-west in north-east axis, and covered an area of about 5 sq km.

The palace of Fatehpur Sikri consists of a sequence of connected rectangular courtyards like most other Indian palaces of the period, it divides into two parts: the *Zenana*, the *Mardana* and a public area<sup>3</sup>.

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2. This part of the thesis is based on my M.Phil. work (Unpublished) entitled: "*THE ARCHITECTURE OF FATEHPUR SIKRI*", Aligarh Muslim University, Aligarh, 1995.
  3. See plan 5

# PLAN OF FATEHPUR SIKRI



Approaching the complex from the east, one enters first this public area, the *Diwan-i-Am (Bargah-i-Am)* the place of public audience is a columned hall facing a courtyard. The central bay of the pavilion, where the emperor sat, is penned in by *jali* of geometric designs, covered by sloping roof - resembling thatched roof<sup>4</sup>.

The pavement and the buildings are all constructed of red sandstone. What is striking about the buildings is their curious architectural style, so unlike that of most other Islamic buildings in India. In much of the Fatehpur Sikri palaces, this process of use of Hindu motifs has been exaggerated to the point where the formula is reversed: a few Islamic motifs remains as exotic details in a style in which the majority of the component parts are Hindu. It is trabeate in construction and includes components such as corbel capitals and *chajjas* derived from Hindu temple architecture<sup>5</sup>.

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4. See photograph nos. 43, 44

5. *Ibid*,

The northern end of *Mardana* is dominated by *Diwan-i-Khas*: a square, free standing pavilion. From the outside it gives two storey effect with cupolas at each corner of its roof. In the centre a column rises to half the height, and rich corbels on the column support a small round platform radiates four catwalk to each corners, the specialized design suggests that the hall performed some specific function, but what it was we cannot be sure. It is a perfect combination of trabeate and arcuate style of architecture<sup>6</sup>.

Further to the south again, and occupying almost half of the *Mardana* court, is the private palace of the emperor. A number of pavilions are grouped around an ornamental pool, the *Anup Talo*.

To the north-east of the pool, covered wall link other pavilions, including Turkish Sultana's House. The sloping roof of the varanda around this pavilion is carved in imitation of tiles, which the columns and external walls are carved with geometrical and floral designs. In side, a

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6. See photograph nos. 45, 46

pattern of interlocking niches covers much of the walls, and the dados below have depicts of plants and animals.

*Aukh Michauli*- the fine hall with number of entrances situated to the west of *Diwan-i-Khas* but we cannot guess about its functional use. Some suggest that it was used as a treasury. The treasury has a specific role for which this hall was not well suited.

*Panch Mahal*<sup>7</sup>- five storeyed columned hall of the storeys giving the building a pyramidal out-line, the apex is a single square cupola surmounted by a dome. The construction throughout is trabeate. The columns are the Hindus temple type, with a partly octagonal or more sided and partly circular shafts, a square base and a corbel capital, many of them - especially those on the second storey - are decorated with varied and inventive carvings, some depicting fruits, chain and bell, *kalash*, banana tree, man plucking fruits etc.<sup>8</sup> The sides of the building at present

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7. See photograph no. 47

8. See photograph no. 48

appear very open, but originally the spaces between the outer columns were filled with perforated *jali* screens. The whole structure demonstrates the perfection of the trabeate style. The presence of cupola in the last storey provides a better effect. The inverted lotus with pinnacle crowning the dome is in perfect harmony with the dimensions of the cupola.

To the south of *Panch Mahal*, standing on its own podium, is a independent *Zenana* pavilion called Maryam's house or the *Sunhara Makan*- with paintings floral, geomatric designs and animal figures<sup>9</sup>.

To the south of *Sunhara Makan* is the largest single court of the *Zenana*, known as Jodh Bai's palace - the residence of a number of the emperor's principal wives. The form of ranges and the plan of the court are based on Rajput palace traditions<sup>10</sup>.

To the west stands Birbal's house. On the ground

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9. See photograph no. 49

10. See photograph nos. 50, 51

storey there are four square chambers, two of these are surmounted by further chambers. Roofs of the entrance porches are of pyramidal type of domes with two pinnacles on either sides. The stone carving which decorates this house is exceptionally crisp and rich. The deep eaves (*Chajja*) between the two storeys is supported by elaborate brackets with pendant bosses. All motifs are taken directly from Hindu temple architecture. Other decoration is Islamic - geomatric pattern, the pointed arches carved in relief and the shallow arched niches<sup>11</sup>.

The *Jama Masjid* is separated from the palace complex to the western side of the royal complex. Southern gate is known as Buland Darwaza. Its central courtyard is surrounded on all side by cloister. In the western side the central portion comprises the main century, divided into three apartments which is surmounted by domed roof - central dome is more wider and higher, domes lurk behind a fringe of chattris. Series of arches of the facade constitute Islamic statement in Fatehpur Sikri, but inside the hall we

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11. See photograph no. 52

find dependence on Hindu ideas in the place of squinches. Corbel form is present to convert square chamber into circular<sup>12</sup>.

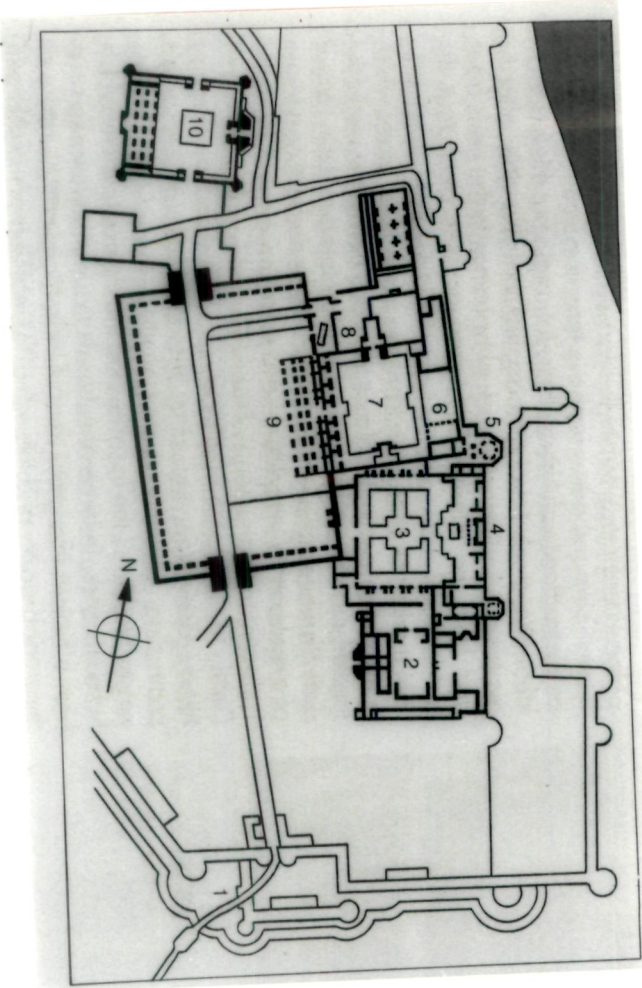
### AGRA

In the entrance gate which is on the western side of the fort is the principle gate known as Delhi gate. The gate is recessed and depth has been provided with the help of overlapping arches. Both the sides of the entrance gate are flanked with octagonal bastions. These octagonal bastions are two storey in height where the upper storey has been constructed with pillars, brackets and flat roof and above the flat roof a cupola is made which is covered by a domed roof. The main entrance is flanked by oriel windows on both the sides. These oriel windows are covered with pyramidal domes. On both the corners of the dome, pinnacles are surmounted. Above the arch the horizontal door post is decorated with the carving of dragon like figure. This figure has been carved according to Hindu mythology to keep away the evil spirits. This sculpture

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12. See photograph nos. 53, 54

P6



carving suggest the revival of sculpture art under Akbar. Trabeate style dominates the technique but in appearance of the facade arcuate style is followed.

The Jahangir *Mahal*<sup>13</sup> is dominated by arcute facade. But in the interior the rooms are purely in trabeate style and the brackets which are two tier or three tier in form are mainly in the form of elephant head. One of the bigger hall of the palace has been constructed purely on the pattern of wooden architecture where struts have been used for the purpose of support to the stone beams. These struts are carved with the figure of crocodiles. The dominant form of decoration in the interior of the rooms is mainly in the forms of geometrical pattern and floral pattern. The building is constructed with red sand stone and carving is done. The construction of this palace suggest that Indian masons and stone cutters of Punjab and Rajputana were employed for its construction. Oriel windows, oriel miches, pillars, brackets are of Rajputana origin while some of the brackets shafts and the struts are of wooden pattern derived

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13. See photograph no. 56

from the region of Punjab. The layout of the palace, the construction of cloisters adjoining the rooms are according to the need of the Indian climate. As a whole the palace structure suggests that Akbar favoured trabeate style of construction and arcuate style is provided only in appearance.

Akbar's architectural activities were not confined to Agra, but also continued in different parts of his empire but unfortunately the buildings of his period were demolished and new buildings were constructed in these places. The main buildings of his period are intact in the fort complex of Fatehpur Sikri. The fort complex contains numerous buildings like *Naubat Khana*, *Diwan-i-Am*, *Diwan-i-Khas*, *Panch Mahal*, *Harem Sara* and *Birbal House*.

Besides these buildings in the southern side of the fort the main religious buildings were *Jama Masjid* and in its courtyard the tomb of Shaikh Salim Chisti was constructed. All these buildings have been constructed of red sand stone except the tomb which is of white marble.

In these buildings we find the synthesis of different styles, different regional features and different type of decorated pattern. The important regional features found in these buildings belong to Rajputana, Gujrat, Bengal, Multan & Punjab. In all these buildings trabeate style dominates. The arcuate style is found only in *Jama Masjid*.

Under Jahangir the building activities suffered a set back as Akbar had already constructed a large number of forts along with a large number of public buildings. Therefore Jahangir did not feel any necessity of constructing any new buildings. During his period the building activity continued only in the form of tomb construction or *serais*. The important tombs of his period are -

1. Akbar's tomb at Sikandra (Agra) constructed in 1613AD.
2. Shaikh Salim Chisti's tomb at Fatehpur Sikri in 1618AD.
3. Itmadudaula's tomb near Rambagh Agra (1622-28AD).

4. Khusro's tomb at Allahabad.
5. Jahangir's tomb at Sahadra (Lahore).

Jahangir also constructed tomb of Shah Begum at Allahabad in 1602AD. This was the first tomb constructed by him when he was governor of Allahabad. It is of red sand stone. This tomb is purely in the tradition of other buildings of Fatehpur Sikri where trabeate style is followed in construction while arcuate style is adopted in appearance.

The tomb of Akbar, though was started by Akbar but was completed during the reign of Jahangir. In this tomb white marble is used along with red sand stone as also in the Jahangir's tomb, while in the tomb of Shaikh Salim Chisti and in Khusro's tomb only white marble is used.

Till now the tomb building's were covered by a domed roof, but during Jahangir's period this tradition is not followed. The tomb of Shah Begum, at its upper storey, is covered by a cupola tomb of Akbar by a flat roof. Tomb of Shaikh Salim Chisti by a domed roof (it is pointed), the tomb of Itimad-ud-daula by a pyramidal dome, khusro's

tomb by a pointed dome and of Jahangir by flat roof.

For the first time we find the beginning of minarets construction in the tomb buildings. They appear for the first time in the tomb of Akbar, not in the main tomb building but in the southern entrance gate of the outer enclosed wall. In the tomb of Itmad-ud-daula and Jahangir, minarets develop as an integral part of the tomb. From the point of view of decoration tomb building of Jahangir are also important as we find for the first time the use of opus sectile (in this coloured stones are filled in cavaties) and pietra dura (precious and semi-precious stones are filled in cavaties). Both are inlay decoration.

The use of opus sectile is found in the tomb of Akbar in the entrance gate as well as the central half domed entrance of the main building while pietra dura was used in the tomb of Itmad-ud-daula.

The tomb of Akbar<sup>14</sup> is the best example of an individual type completely away from the traditional

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14. See photograph no. 55

pattern of the tomb architecture. This tomb building is situated in the centre of a rectangle which is divided into four gardens and all these gardens are enclosed by an outer wall where each side in its centre contains an entrance gate. Out of these four gates only one gate is functional. The others have been made for maintaining better symmetry. The main tomb building in its layout is in the pattern of Humayun's tomb i.e. multichambered, but the terrace is missing. Construction of the multi-chambers start right from the ground level. The outside appearance of the first storey is however in the pattern of Humayun tomb divided into rooms with openings on all the four sides. So each side is having eleven arched entrances and the central arch is broader and higher and is half domed entrance, while the side entrance gate are recessed entrance gates. Here all the arched entrance gates are in the form of pointed arched. The second storey is in the form of pillared cloisters on all the four sides but the area of the second storey is reduced on all the four sides. The third storey is also pillared and finally the fourth storey is covered on the outer side by

perforated screen of white marble and in the interior inside the perforated screen all the sides are covered with cloisters. The central portion is left an open courtyard with the replica of the grave in the centre.

All the storey's are in pyramidal order and each corner of every storey contains single cupola. The upper most part of the open courtyard is covered by a mosaic tiles. Here pyramidal order is maintained in the tradition of Sher Shah's tomb while multichambered plan first storey arcuate appearance is taken from Humayun's tomb. The second, third and the fourth storey in the form of pillared cloisters and lastly the fourth storey without roof is new experiment in the tomb architecture. In decoration emphasis is laid on opus sectile inlay and arabesque carving over pillars and brackets in the pattern of *Panch Mahal* tradition.

The second important tomb of this period is tomb of Shaikh Salim Chisti.

After Jahangir's death when Shah Jahan became Mughal emperor, the building activities revived with more

zeal and with more resources. Shah Jahan was fond of making buildings according to his own architectural taste. Therefore, when he occupied Agra as his capital, he ordered the demolition of all buildings of Akbar's period except *Jahangir Mahal* and in their place the buildings of his taste were constructed. These buildings are *Diwan-i-Am*<sup>15</sup>, *Diwan-i-Khas*<sup>16</sup>, *Sheesh Mahal*, *Khwabgah*, *Mussaman Burj*<sup>17</sup>, *Moti Masjid*<sup>18</sup> and a large number of maid servant quarters. All these buildings except *Moti Masjid* has been constructed with white marble. Besides the building activities at Agra, Shah Jahan also founded new capital city in Delhi and named it Shah Jahanabad.

## DELHI

The red fort of Delhi is the best example for the study of Shah Jahani architecture. Inside this fort the arrangement

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15. See photograph no. 57

16. See photograph no. 58

17. See photograph no. 59

18. See photograph no. 61

of buildings is more or less in the pattern of the fort of Fatehpur Sikri, such as it had two entrance gates, one for public known as Lahori gate and the other private entrance gate of the emperor known as elephant gate. Entering through the Lahori gate the major change in the fort architecture took place by constructing corridors for defensive purposes and also making the entrance passage in a zig-zag form. These corridors are divided into number of rooms for the purpose of keeping the defensive guards. Passing through this passage the first building is *Naubat Khana* (drum house), the second building is *Diwan-i-Am* where emperor use to hold the court for public.

The *Diwan-i-Am*<sup>19</sup> is in the form of a large pillared hall where the arcade from all the three sides are in the form of multifoliated arches. The pillars of this building are tapering pillars with vertical flautings, foliated bases and vaulted capitals. At a rear wall, in its centre, at a raised terrace imperial throne was made and this throne is made up of four tapering pillars and covered by bent roof. The

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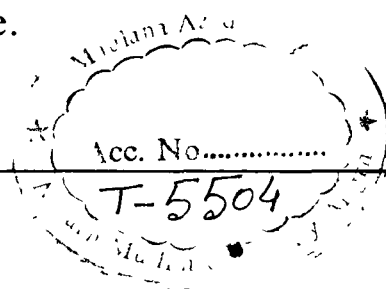
19. See photograph no. 65

pillars, ceiling and the wall are profusedly decorated with pointed coloured tiles and these tiles generally contain the paintings of birds.

To the inner side of this building is another kind of building known as *Diwan-i-Khas*<sup>20</sup> which is again in the form of pillared hall where each side contains an arcade of five arches. But the important modification is in the form of use of piers in place of pillars. These piers are square in shape and carved with floral and geometrical designs. The building is constructed with white marble therefore carving is very delicate. In the centre of the hall we find a sunk fountain where the base of the fountain is in the form of lotus flower carved in the stone. The decorative motifs of the piers are influenced by Central Asian and Persian features, as in floral designs persian flowers such as lilly and *nargis* are used. The geometrical designs are of early medieval period. The practice of using wide eaves and kiosk is based on Rajputana architecture.

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20. See photograph no. 67



The other building at red fort is *Rang Mahal* which is also in the form of pillared hall with small apartments on its side. This building is made up of white marble and like *Diwan-i-Khas* square piers are used. The pattern is almost identical with *Diwan-i-Khas*. The only modification is in the form of sunk fountain which is in the centre of this hall. The other change is the use of white marble perforated screens in the openings which are in the form of arched entrances. In the perforated screens we find the floral designs while on the piers we find mural paintings though the subject matter of these paintings is again floral designs. On the basis of decoration it is the best palace of Shah Jahan's period.

There are other large number of residential palaces known with different names but generally they all fall in the complex of *Mahal-i-Sera* or palace for *harem*. They are made up of number of compartments with cloisters having channels of running water which contain the sunk fountains. The important feature of these palaces is there plan which is generally square for maintaining better

symmetry in the interior. In these palaces multifoliated arches, tapering pillars, sunk fountains and bulbous domes of cupolas and kiosks are constructed in the pattern of Shah Jahani characteristic features.

In front of the fort inside the city of Shah Jahanabad, Shah Jahan constructed *Jama Masjid*<sup>21</sup> in a period of five years i.e. from 1651-1656. In plan the mosque is in the form of a quadrangle and consisted of a western liwan in form of a pillared hall but in place of the pillars, piers have been used and above these piers multifoliated arches are made. This hall is divided into three apartments, the central nave flanked by side aisles. The nave is covered by a broader and higher dome while the aisles with smaller and lower domes resulting into three domed roof while the surrounding portions of the aisles are covered by flat roofs. The screen of the mosque consisted of eleven arches. Here the centre arch is broad and higher while the side arches are smaller and lower but all these arches are pointed with multifoliated arches. The central arch is having fifteen

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21. See photograph no. 69

cusps or foliation while the side arches with nine cusps. At the corners, there are octagonal minarets on both the sides with three storied height and finally surmounted by a cupola. Thus for the first time minarets appear in the screen of this mosque as an essential feature of the mosque architecture. The minarets are octagonal with vertical flutings<sup>22</sup>. In front of the screen is the open courtyard surrounded by pillared cloisters from all the three sides and each side in its centre is having an entrance gate. The entrance gate on northern and southern sides though chamfered in nature but are of two storied height and were used by the public, while the eastern gate is again chamfered but is of three storied height and was used only by the emperor. Above this gate at the corners of the chamfered angles at the roof level small turrets have been constructed and between the turrets a range of smaller kiosks have been made. In these entrance gates we find that the Shah Jahan's architecture features dominates in the form of multifoliated arches, bulbous domes and octagonal

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22. *Ibid*,

minarettes. Here the plan of the chamfered angles is purely in the tradition of persian architecture while the bulbous domes are in the pattern of Central Asian architecture. The construction of kiosk and cupolas are purely in Indian tradition.

Another new feature has been introduced when both the corners of the eastern sides are made in the form of small apartments covered by flat roof along with the roof of open cloisters. Above the roof level at these apartments cupolas are made. By introducing cupolas at these corners above these square apartments better symmetry has been created. The main emphasis is on symmetry and proportion. The decorated effect has been achieved by the use of different coloured stones. The main building consisted of red sandstone while the kiosk, cupolas and the three domes are made of white marble, while black carving is used in inlay carving of the calligraphy in the form of verses of the Holy *Quran*.

The other important building of Shah Jahan's reign is

the Taj Mahal at Agra<sup>23</sup>. The Mahal complex contains tomb of Mumtaz Mahal, a mosque, guest house market and entrance gates. The whole area is covered by an enclosed wall. All structure except the tomb of Mumtaz Mahal are made with red sandstone while the building of the tomb is constructed with bricks and coated in the interior as well as the exterior with white marble. The market complex is in the traditional pattern of Fatehpur Sikri buildings, but the entrance gate in front of the tomb building is a half dome entrance gate in recessed form and is in the form of an apartment covered by a small domed roof. The multifoliated arch of this entrance gate suggest the full development of such type of arch. After entering this gate the huge area is divided into small gardens and finally in the rear the main building of Taj Mahal stands.

The main building of the Taj Mahal is square in plan and has been constructed purely on the model of Humayun's tomb<sup>24</sup>. It's raised terrace is divided into arcaded zones.

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23. See photograph no. 62

24. See photograph no. 64

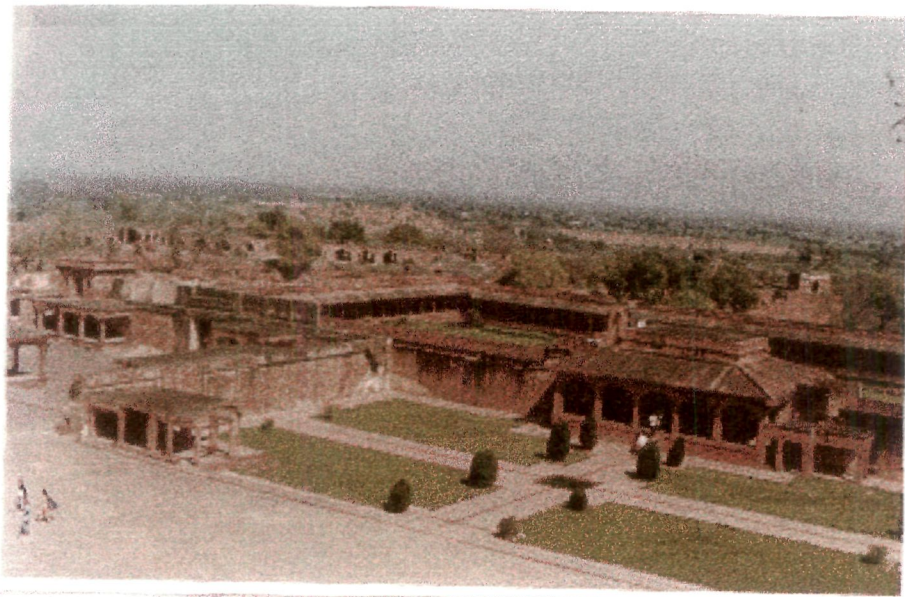
The centre of the square terrace is occupied by a square building with chamfered angles. Each side of it are identical and is multichambered. The central chamber is octagonal in plan and below it in the underground chamber the body of the queen was buried which contains the grave. While at the ground level just above the real grave another grave is also made which is again the replica of underground grave. The chambers are connected with one another through diagonal passages. The central octagonal chamber is covered by a domed roof which is a double dome and bulbous in shape. The centre dome is flanked by cupolas where each chamfered angles at its roof level is surmounted by a cupola over the flat roof. At all the four corners of the raised terrace are the minarets. These minarets are constructed as an independent structure. Since the structure is coated with white marble the decoration is also perfect both in the interior as well as in the exterior. Pietra dura decoration dominate though opus sectite was also used. The walls right from dado till the ceiling are decorated with floral and geometrical designs. The symmetry of the double dome with the walls of the structure is achieved for the

first time. The minarets, three storeyed, are surmounted<sup>n</sup> by cupola whose dome are pointed and, are tapering minarets.

Apart from decoration of walls the perforated screens<sup>25</sup> covering octagonal central chamber are made up of white marble and consist of geometrical and floral designs.

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25. See photograph no. 63



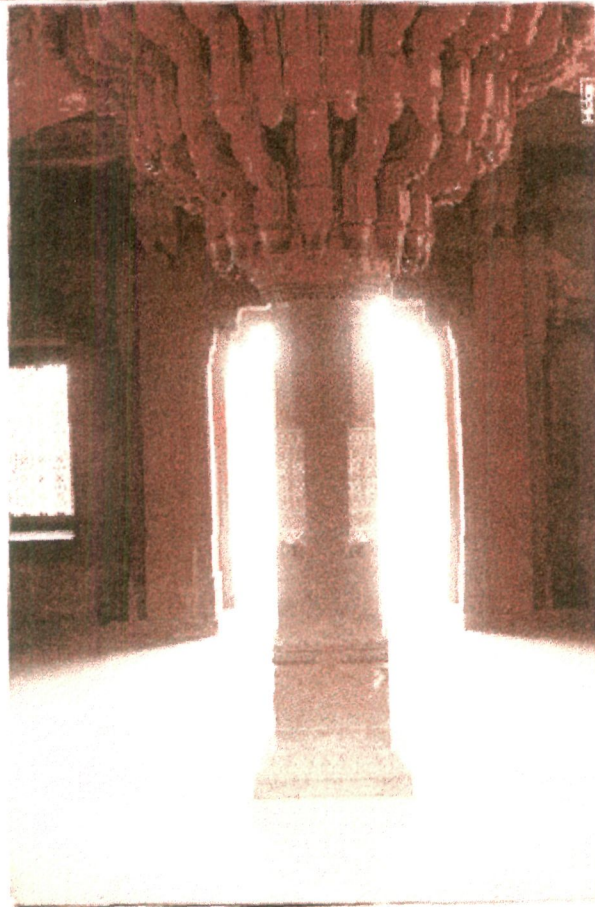
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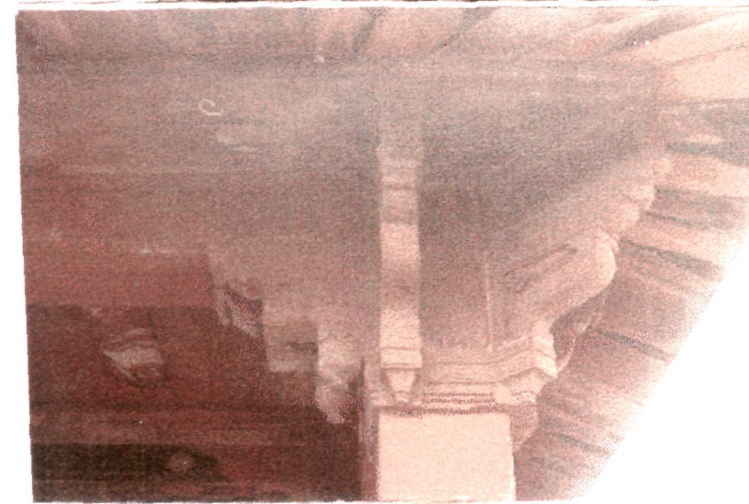
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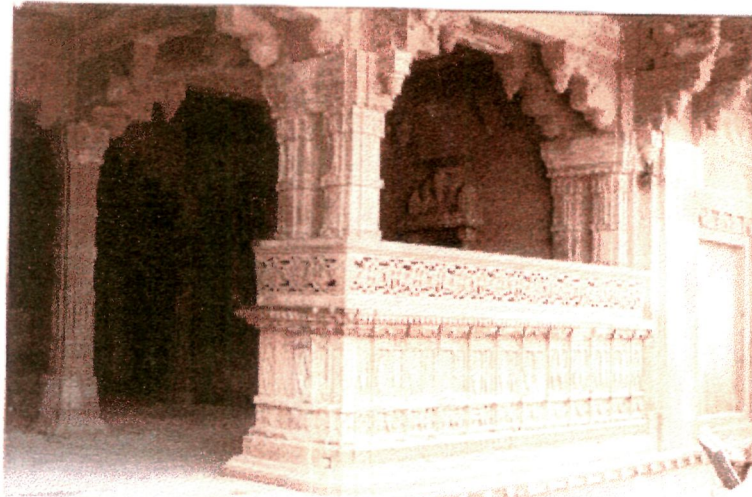
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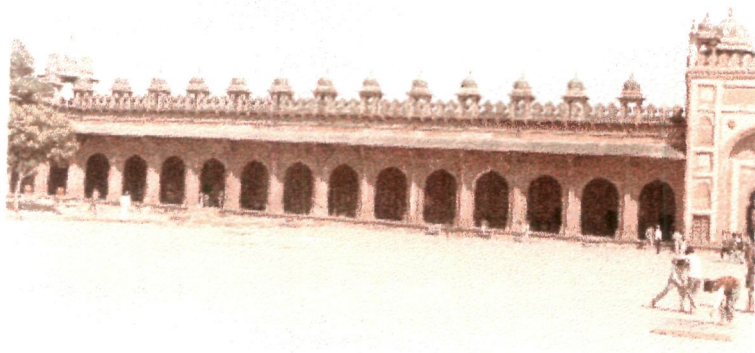
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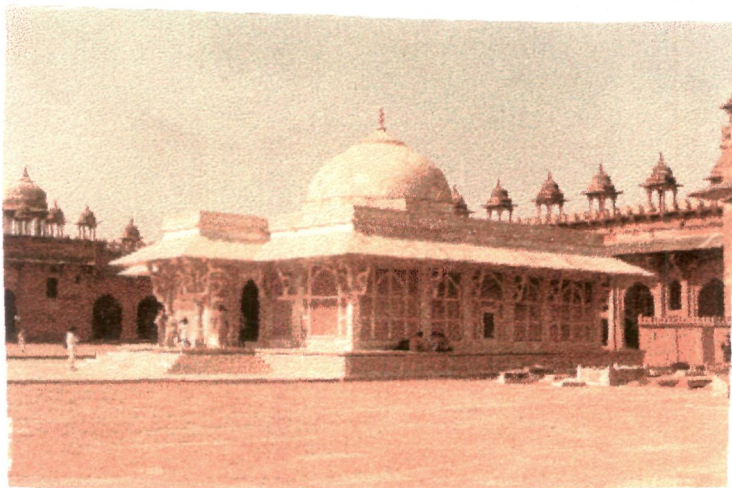
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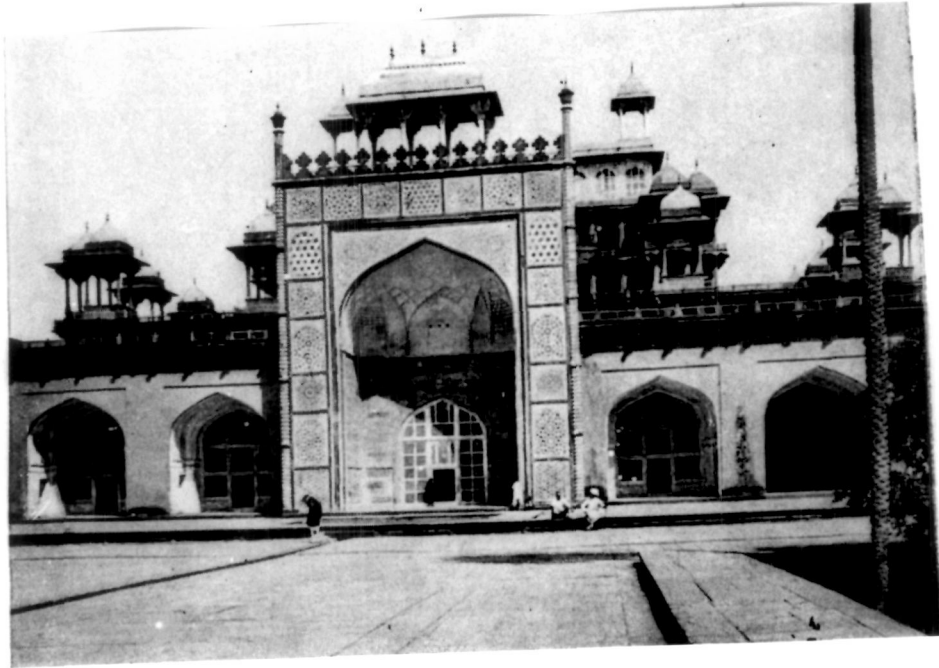
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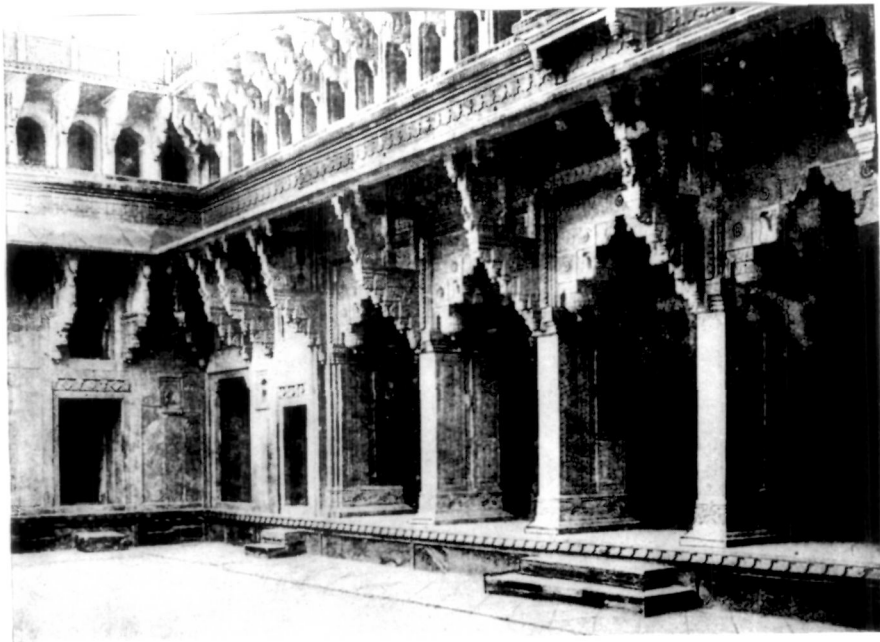
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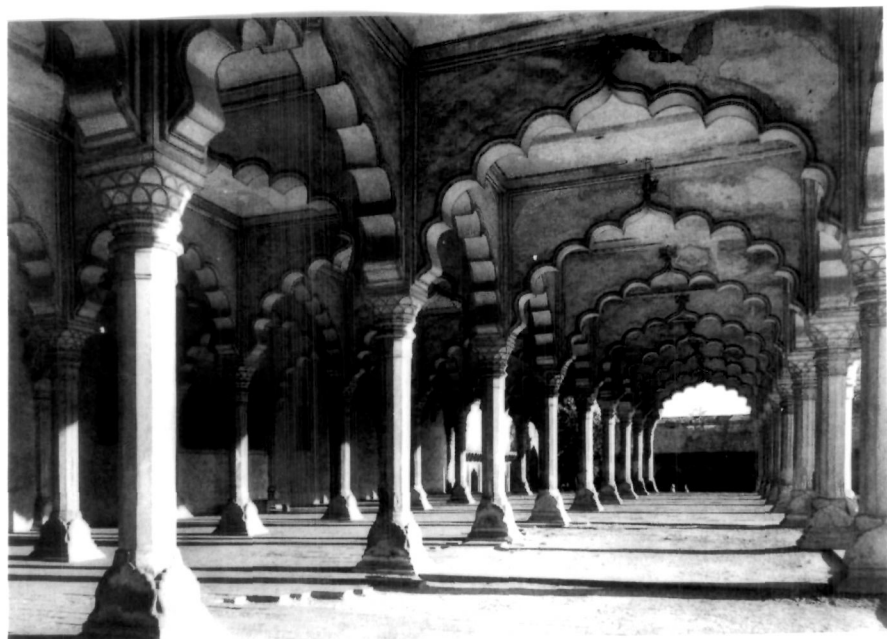
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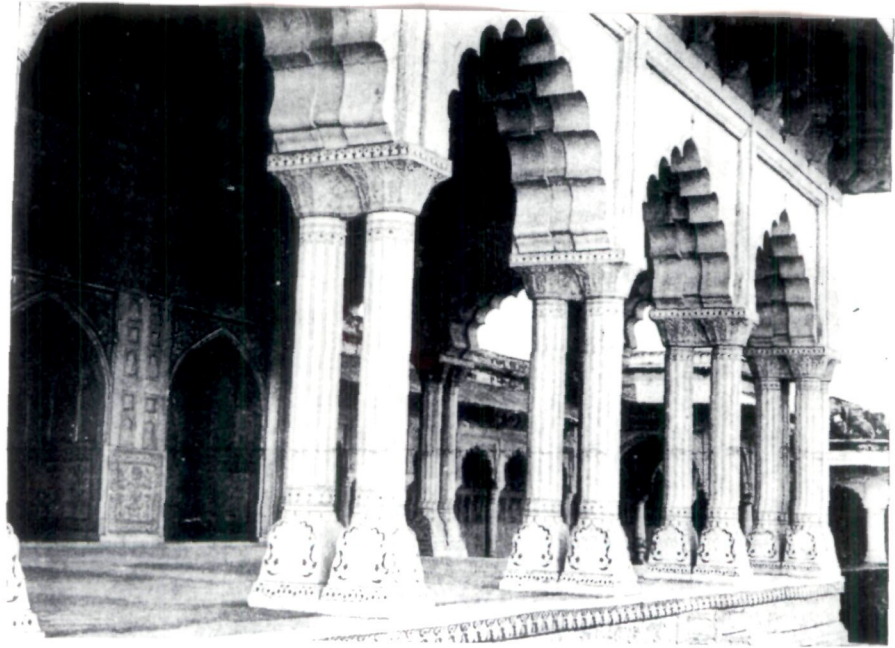
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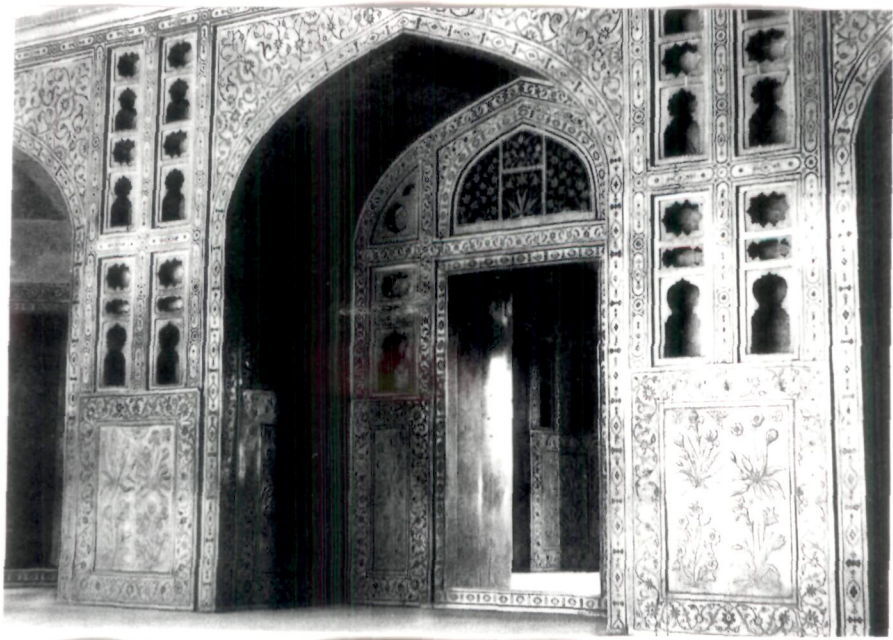
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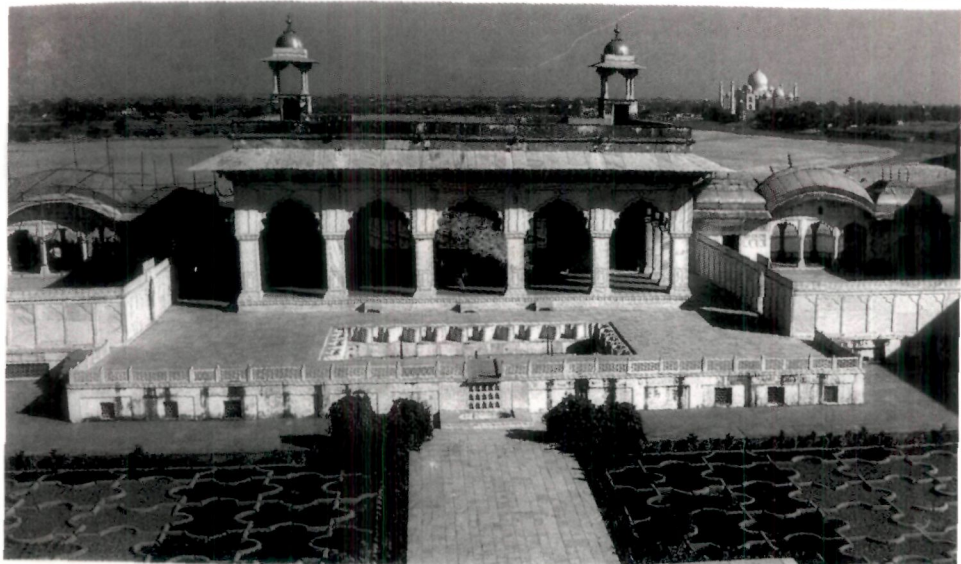
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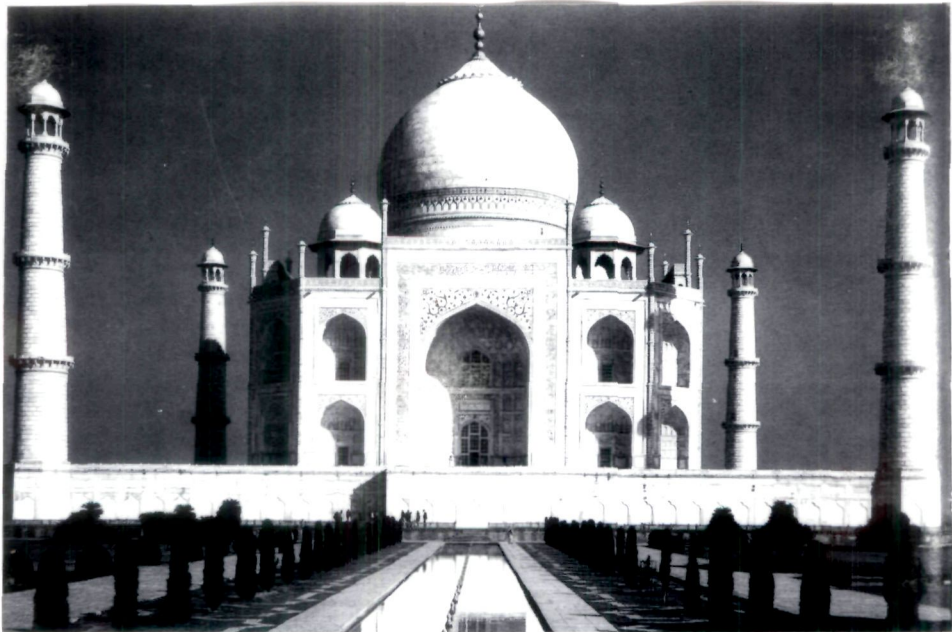
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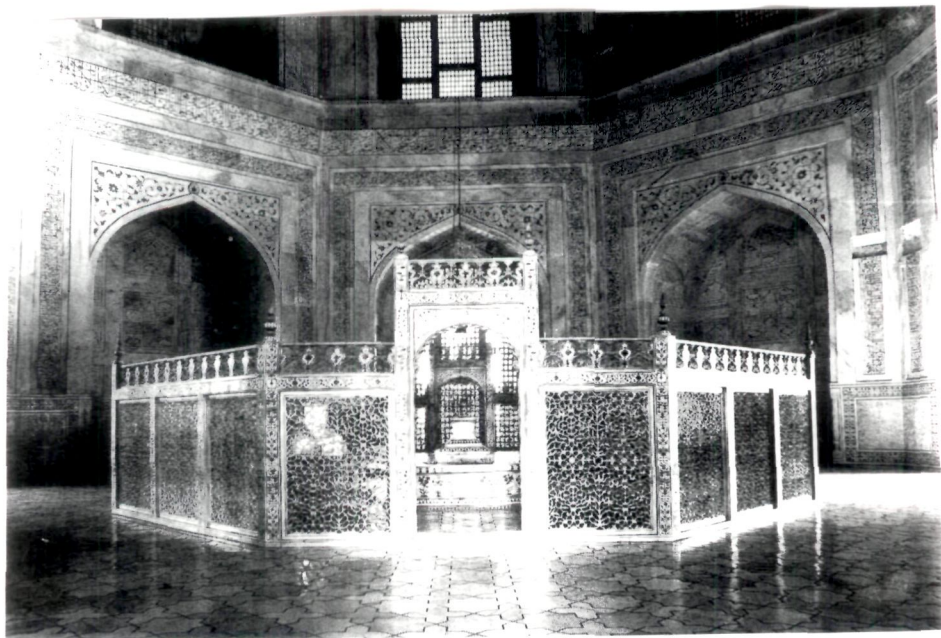
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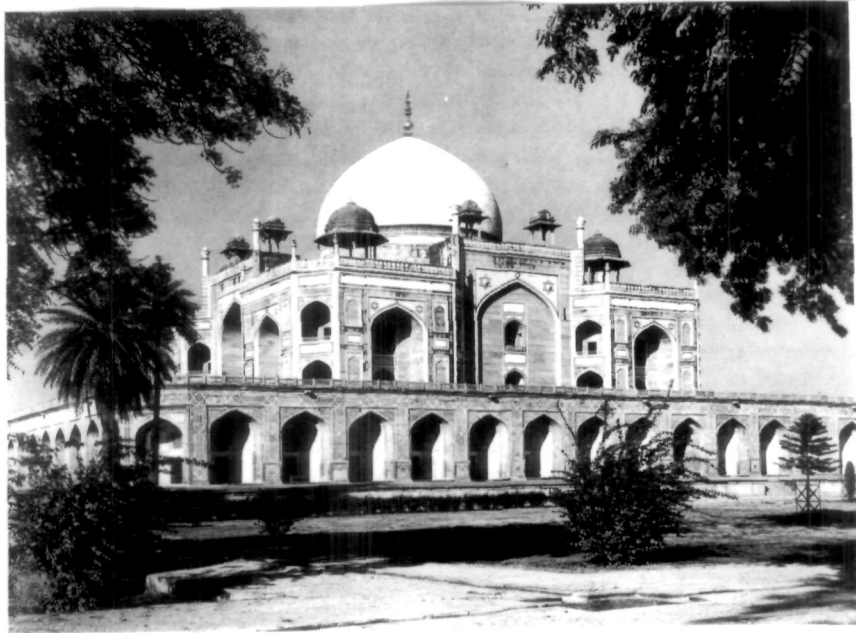
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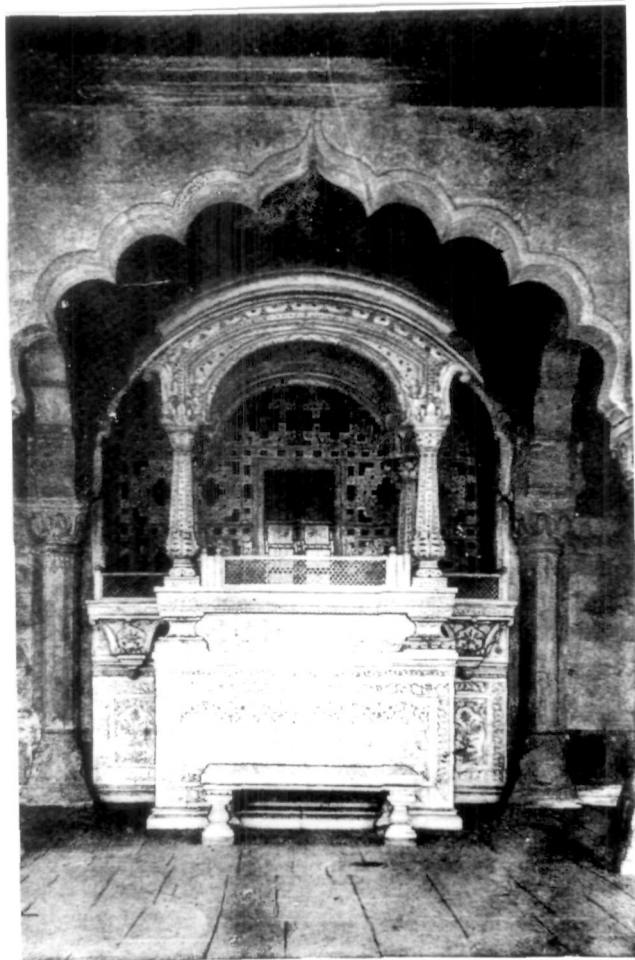
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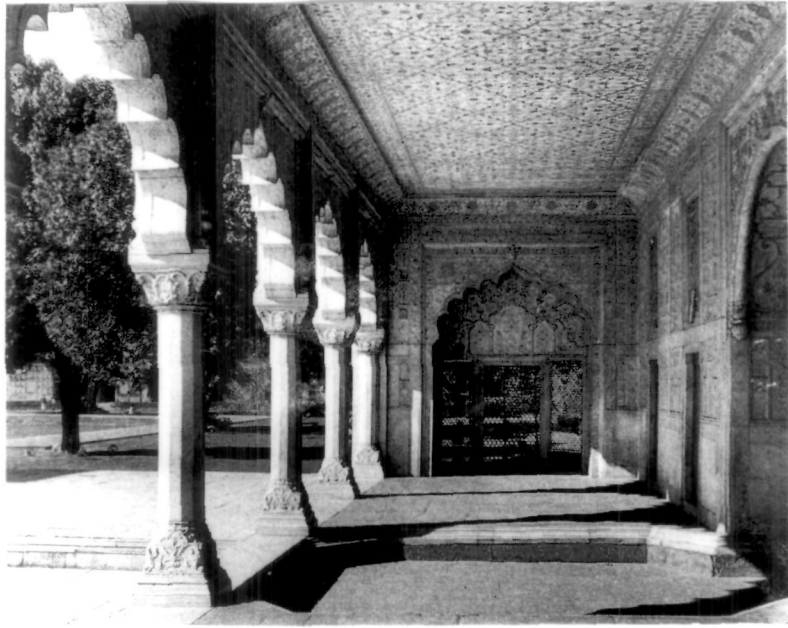
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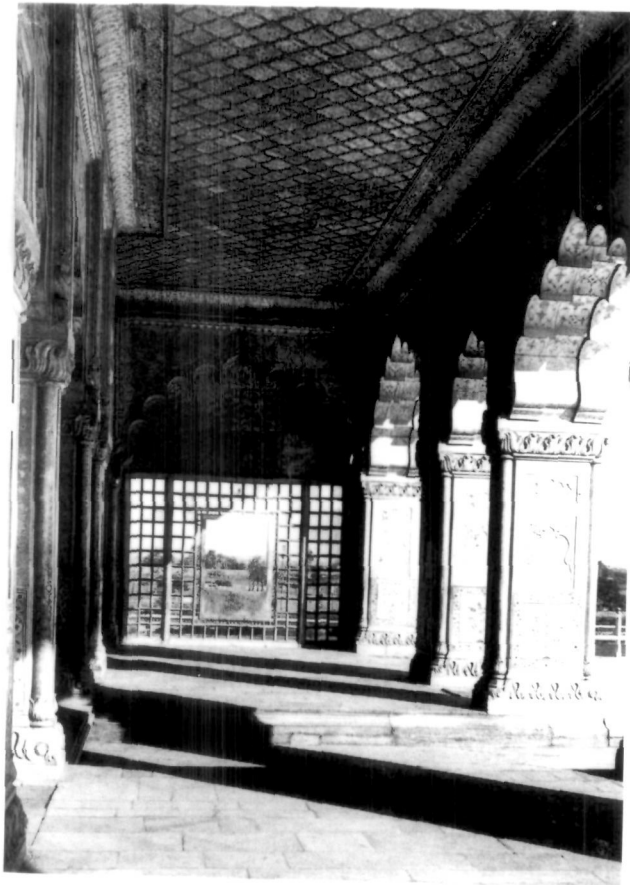
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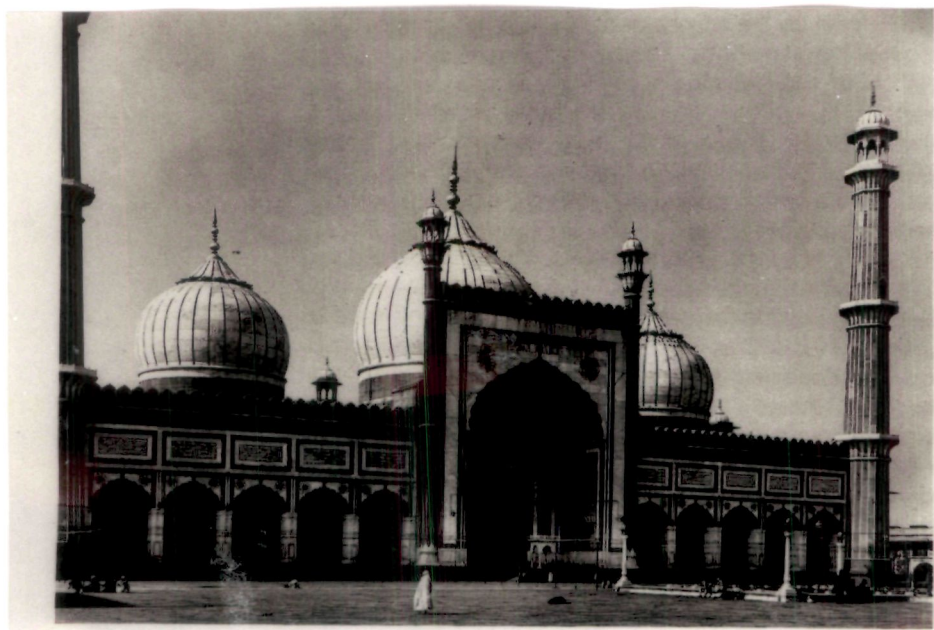


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## CHAPTER - V

### CONCLUSION

The Mughal rulers constructed number of buildings in the capital city as well as in the provincial capital cities of India i.e. Delhi, Agra, Fatehpur Sikri among the Mughal capitals and Lahore, Ajmer and Allahabad in the provincial cities.

In the second half of the 16th century during the reign of Akbar, the Mughals started dominating north India through their policies. Mughal imparted cultural, traditional and architectural features from Persian and a few architectural features of the palaces of Rajputana are clearly visible in the buildings constructed by the Mughals. These common features include aspects of the general arrangement. *Zanana* and *Mardana*, methods of construction i.e. combination of trabeate and arcuate techniques; specific forms and details— cusped arches and bangaldar roof; type of decoration— mirror work and mural paintings; and building materials- local sand stone and *chunam* or polished plaster. There are some scholars who

deny that the mughals introduced true arch in India<sup>1</sup>, argument is that the pre-*Sultanate* artisans were aware of its principle, but chose to construct it rarely<sup>2</sup>. Pre-*Sultanate* craftsmen had adopted square (a symbol of stability) as the essential element of their architecture; and the arch closely resembles the circle (symbolises motion in the Buddhist conography)<sup>3</sup>. Even after the Ghorian conquest, 1192AD, its construction was very slow and as we have studied in Rajput palaces that it was not accepted fully in Rajput architecture until the last decade of 16th C, suggesting some reluctance to use it on the part of Rajput craftsmen.

Babur's remark about the Hindu guild system that "1491 stone cutters worked daily on my buildings in Agra,

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1. Havel, E.B.- *Indian Architecture*, London, 1927, p.56.  
Saraswati, A.K. 'Art'.... pp. 661-739, Grover, Satish, *The Architecture of India*, Ghaziabad, 1980, p.171.
  2. Coomarswami, A.K., *History of Indian and Indonesian Art*, New York, 1965, p.73
  3. *Ibid*,

Sikri, Biana (Bayana), Dulpur (Dholpur), Gwalior and Kuil.<sup>4</sup> In a farman to Mirza Raja Jai Singh of Amber, Shah Jahan demands that "raja send sculptors to the capital that they could work on the Taj Majal in place of detaining them at Amber."<sup>5</sup> It is apparent that right from Ghorian conquest of India, Indo-Islamic patron depended on Local craftsmen.

The two traditions – Indo-Islamic and secular Hindu are represented in northern India in the medieval period by Mughals and Rajput architecture respectively. The Mughal style incorporated the corbelled capitals, eaves (Chajjas) and brackets among many other details of the Hindu traditions. The Rajput style incorporated Mughal architectural forms and plan in their buildings which were constructed during the 17th and 18th century AD. The principal Mughal architectural features evidently found in

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4. *Babar Nama* (tr) Vol. 2, p.520.

5. *A Descriptive list of Farmers, Manshurs and Nishans addressed by the Imperial Mughals to the Princes of Rajasthan*, Directorate of Archives, Govt. of Rajasthan, Bikaner, 1962, p-4, S.No.27

the Rajput buildings are tapering and fluted pillars corbelled brackets either in two tier or three tier effect, different types of arches i.e. pointed, cusped or multifoliated and some times equilateral; different types at roofs mainly wagon, vaulted and sloping roofs; decorative design like *pietre dura* and Mural paintings.

The plan of *Diwan-i-Am* in different Rajput capital cities as well as pillared pavilion halls (*Baradaris*) are basically on Mughal pattern and building plan.

Such interaction was probably facilitated by the sharing of craftsmen. Though, common features were introduced between the two styles by this sharing the dissimilarities were also present despite it. The same skilled workers could produce structures of different style, when working under different patron and direction. The features which distinguished Hindu and Mughal styles are the result of the demand of a continuing Rajput tradition and on the other hand of Mughal supervisors and patrons who required the Hindu skilled artisans to adopt their skills to concord with persian designs, ideas and requirements.

One such form is the bangaldar roof. Derived probably from the Bengali bamboo hut, it had been first adopted by the Muslim architecture of that region. It was introduced into Rajput architecture (in the form close to original) and at the same time into Mughal architecture.

The architectural features which is perhaps more often misunderstood in this context is the cusped arch. As it has been used in the mughal buildings of Agra and Delhi, the cusped arch is often taken to be the gift of Mughal style and if it is so than its presence in the Rajput buildings might seem to indicate the Mughal influence. The cusped arch plays a longer and more interesting role in the history of Indian architecture.

The form of cusped arch and its various type are found on Hindu monuments built long before the first main Indo-Islamic monument. Though none of the Hindu or Buddhist cusped arch is a true arch but this does not imply that they were not the precedents for Mughal example. The foliating line of the cusped arch is difficult to be achieved by voussoirs construction, which more readily produces a

single smooth curve. The cusped arch is most commonly present on a small scale for which strength of the foliated arch is not required. The form is carved out of vertical slab fixed between the columns. The cusped arch of both Hindu or Buddhist and Indo-Islamic architecture would be described as a cusped arc. It is structurally not an arch but a pair of brackets.<sup>6</sup> A flying cusped arch spans the doorway of the Kandarya Mahadev Temple (1000AD) at Khajuraho. The 'mosque the screen of *Arhai-din-ka-Jhopra* built at Ajmer in 1200AD; the ruins of the Tughlaqabad also testify the construction of cusped arch.<sup>7</sup> It is not present in the mid fifteenth century palace of Rana Kumbha at Chitor (the oldest surviving Rajput palace). The form of cusped arch was experimented throughout the Rajput states.<sup>8</sup>

Such experiments are also evident in Mughal buildings from the middle of the Akbar's and Jahangir's

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6. Coomarswami, *op.cit*, p. 229

7. Brown, Percy, *op.cit*. V.2, p.59

8. Havell, E.B., *op.cit*. p.207.

regin. These forms are found carved in relief at Fatehpur Sikri, Akbar's tomb at Sikandra. But in the reign of Shah Jahan the form was brought to maturity in the palaces of Agra and Delhi.

On a few occasion the interaction of the styles is not only an influence but also total adoption by one school of the others style. All Mughal buildings adopted Hindu form to some extent but in Akbar's building activities at Fatehpur Sikri they are used exclusively. The buildings are largely of trabeate construction and the style and details are adopted from Rajput. Similarly the *Diwan-i-Am* of the Amber reflects Mughals way of buildings construction.

The Fatehpur Sikri palace resemble the Rajput buildings and the *Diwan-i-Am* the Mughal buildings, but the two do not resemble each other. The palaces built under the patronage of Mughal rulers were influenced by the Rajputana style while palace built under the patronage of the Rajput rulers were influenced by the Mughal style. It seems that the style used for any project depends on the individual patronage or on the training of the skilled

craftsmen, rather than on the religion. It also appears from the buildings studied that the relation between style and patronage is not very clear.

In view of this unclear relation between style and patronage, we are bound to change some terminology. Each of the terms Rajput and Mughal is commonly used in two different ways. It is used to refer to style and to describe style as well. Architectural styles are described by terms Rajput style and Mughal style. The term Rajput school and the Mughal school are used to indicate the patronage (in each case all of the buildings associated with the centre of patronage named).

Differences of details may also be present. The Mughal architecture depends on Islamic decorative forms whereas Rajput architecture depends on local folk art traditions. In the Mughal buildings we find the use of semiprecious and precious stones; these are not often present in Rajput buildings. The difference in the two styles can be seen while in the arrangement of buildings. The Mughal palaces consist of a number of separate buildings surrounded by a

fortified wall. The Rajput garh palaces are a single continuous mass of fortification and palaces combined, built either on the top of the hill or on the slope.

The garh palace of Amber is an exception as it was being influenced by the Mughal planning. These general rules apply only to garh palace and not other buildings of Rajputana.<sup>9</sup>

Hindu architecture of the muslim period is upto some extent being neglected by Indian scholars in general as though Ferguson has admired Rajput palaces, but also indicated that those constructed during Mughal period lack "that stamp of Hindu originality"<sup>10</sup>. Percy Brown and Herman Goetz describe the Rajput architecture as a Hindu imitation of Mughal architecture.<sup>11</sup> Other scholars have also accepted this view. S.K. Saraswati mentions no late Rajput buildings except those built during before the Mughal

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9. Saraswati, S.K. *op.cit.* p.724.

10. Fergasson, James, *op.cit.* V.2, p.177.

11. Brown Percy, *op.cit.* v.2, pp. 117-18, 120, Goetz, Hermann 'Bundela Art', *op.cit.* pp. 107-20.

invasion, which alone seems to represent "more or less an indigenous style."<sup>12</sup>

To describe the Rajput architecture, as an imitation of the Mughal architecture is to misinterpret the facts firstly there are two different relations to be defined: the relations between the Rajput and Mughal style and that between the respective schools. These two styles have many common features; some of these were introduced by the Mughals and so indicate a Mughal influence on Rajput style, some are Rajput inventions and so indicate a Rajput influence on Mughal style. Despite the many common features there are also basic differences between the two styles.

In a few Rajput palaces the Mughal style has been adopted and at the same time in a few Mughal palaces a Hindu architectural style has been adopted. Adoption of styles was probably possible because of the movement of craftsmen between the Rajput and Mughal courts. If some

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12. Saraswati, S.K. 'Mughal Architecture'. *op.cit.* Vo.VII, The Mughal Empire, Bombay, 1974, pp. 741-802

Rajput and Mughal buildings are alike than it is not a work of imitation but of the same craftsmen.

Roughly all the Rajput palaces confirm, to the type defined above- a single mass of fortification and palace combined, built on a top of the hill or on slope. But in certain other aspect of their planning they are not alike. Many buildings are not symmetrical in plan and elevation and irregular in all dimensions- while some are symmetrical in both plan and elevation regular in their massing.

Regular palaces are those which were built in short period though irregularity of most of the palaces is probably due to the regular growth of the palace particularly over a very long period.<sup>13</sup>

We do not assume like Percy Brown<sup>14</sup> that the symmetry seen in some of the palaces was the result of a Muslim influence. The extensive and irregular plan of

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13. Reuther, Oscar, *Indische Palaste and Wonnhauser Berhin*, 1925, p.65.

14. Brown, Percy, *op.cit.* Vol.2, p.120.

palaces are so complicated that it cannot be considered at once. Walking from one part of the palace to another part and one palace to another through narrow, winding and enclosed corridors. Even rooms are rarely rectangular and unexpected shapes and it is very difficult to see the whole of any particular room at once. We find courtyards (*Chawk*) at different levels. This effect is successful at Udaipur garh palace, in which we enter a high level courtyard and find trees, as if it is on ground level suggest that this palace is crowned on slope of the hill. Though, palace in a single mass and its form is complicated upto that level that it can not be studied as a unity.

If we study Mughal structure- Taj Mahal a symmetrical and regular building, than as we look at the monument, we understand it. But in Rajput palaces, form are very complex, complicated and do not give clear picture. They are not readable, and sometimes it is very difficult to define them. This is apparent from the absence of the quality of Mughal architecture despite the presence of Mughal architectural features.

Percy Brown while defining the Rajput palaces says "there is something more than architecture in the palaces of Rajput princes, these fanciful pavilions— every stone is touched with the spirit of romance."<sup>15</sup>

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15. *Ibid*, p. 118.

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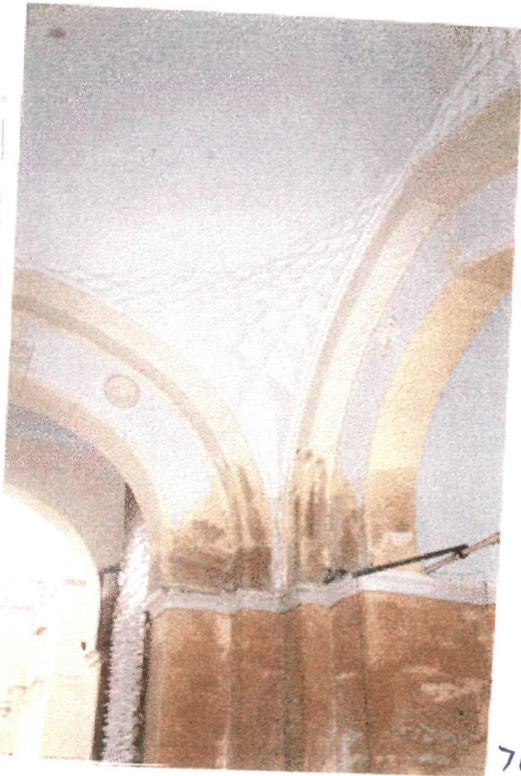
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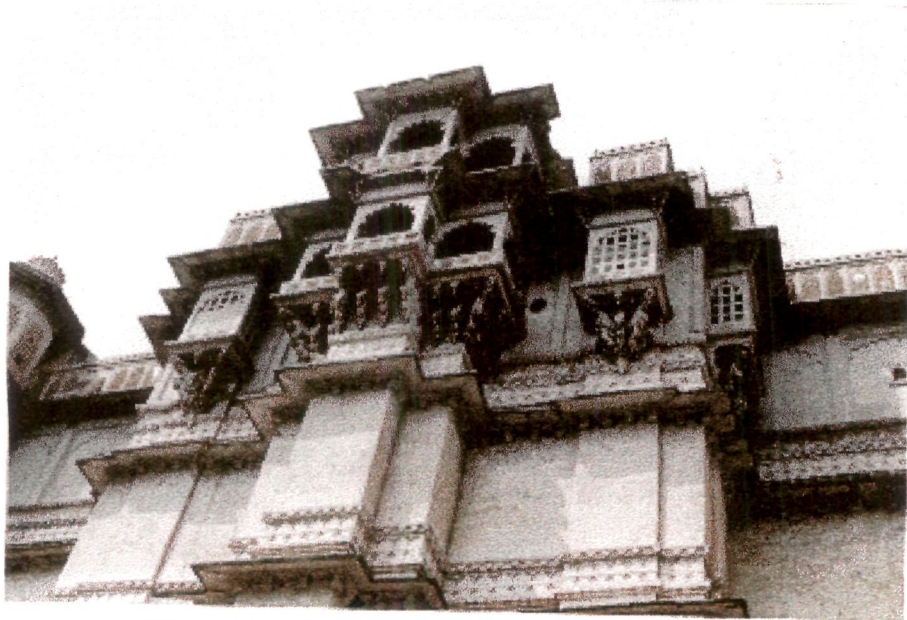
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