

THE NOTION OF HIERARCHY: THE 'PARCHIN KARI' PROGRAMME AT THE TAJ MAHAL

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Abstract

This paper explores the notion of hierarchy in architectural design and decoration with specific reference to the Taj Mahal complex in Agra, dating to 1632 onwards. As one of the acknowledged architectural masterpieces of the world, addressing the concepts that lie behind the design of the Taj Mahal allows an understanding of that achievement beyond its immediate visual impact. Much research has been carried out on various aspects of this Mughal tomb complex and it is not the intention of this paper to reproduce material that is expertly covered elsewhere. The paper instead focuses on the notion of hierarchy that informs the design of the inlaid decorative programme in the zone immediately surrounding the tombs of the deceased. This zone of decoration was particularly highlighted by Mughal commentators for its opulence and accomplished craftsmanship and remains today a highlight for visitors to the mausoleum. The paper addresses three main issues: the decorative technique and its context and symbolism; a description of the gemstone and ornamental stone programme with a focus on motif, material and location; and the relationship between that programme and the concept of hierarchical organisation in its enhancement of the visual and spatial effects.

Keywords

Hierarchy; Taj Mahal; Mughal; architecture

Introduction

Hierarchical organisation is often employed in architecture to emphasise particular spaces and forms. The architecture of the Islamic world is no exception (Hillenbrand, 1984:138 and 1994:14-15). More particularly, the notion of hierarchy was employed in the sphere of Mughal architectural design in South Asia. Ebba Koch discusses the importance of hierarchy at the Taj Mahal (begun 1632) at Agra in her recent monograph and paper on the tomb (Koch, 2005:137-147 and 2006:91; see also sections relating to the central mausoleum in Cox & Kennedy, 2000). The tomb was constructed to house the body of the Mughal emperor Shah Jahan's favoured queen, Mumtaz Mahal, following her death in 1631 (Begley & Desai, 1989:xix). Shah Jahan was himself later buried next to her (Begley & Desai, 1989:141-160). In discussing the architecture of the tomb, Ebba Koch highlights hierarchy as the most dominant of one of a number of theoretical principles that informed the design

and appearance of the complex (Koch, 2006: 91). More specifically, the carved marble dados on the surfaces of the mausoleum are described as a "progressive elaboration of plant forms towards the interior" (Koch, 2006:159). It is the intention of this paper first to discuss in detail a similar idea of progression and hierarchy in the inlaid decorative programme at the Taj Mahal; and second to establish what combination of devices are employed to create this sense of hierarchy in the inlaid programme, a feature for which the mausoleum is famed.

Parchin kari (lit. 'inlay-' or 'driven-in' work) (Begley & Desai, 1991:79 and Koch, 2005:145) is a technique in which gemstones or ornamental stones are inlaid into sockets carved out of a parent stone to form a pattern or motif (see Andrews, 1995:267-270 for further discussion). It corresponds to the Italian decorative method of *commesso di pietre dure* (lit. 'composition of hard stones') and was influenced by the presence of Italian craftsmen at the Mughal court (Koch, 2006:91).

Gemstones are defined as minerals that are rare, beautiful, hard and capable of being cut or polished (Rutland, 1974:8). Their hardness is measured according to Mohs' scale of hardness, which gives them a ranking of between one and ten, with diamonds receiving the highest evaluation (Russell, 2001:4). The visual beauty of gemstones is often linked to their transparent or translucent qualities. Hard stones that are attractive and rare but lack the transparency normally associated with gemstones are on occasion referred to as 'ornamental stones' and include stones such as jade (Rutland, 1974: 8). In Mughal India, *parchin kari* was perfected by craftsmen specifically trained to execute

this technique, known as *parachinkars* (Koch, 2006:91).

At the time of construction, the less white adhesive that could be identified between each of the stones, the better the quality of workmanship was considered to be (Koch, 2006: 92). From observation of the inlaid decoration at the Taj Mahal complex, it becomes clear that the technical craftsmanship of the highest quality, as well as the most costly materials, is reserved for the area immediately surrounding the cenotaphs, for the gaps between stones are almost invisible (Begley & Desai, 1989:84).

The cost of such an attractive form of decoration was high, unsurprising given the nature of the materials used. Peter Mundy, an English traveller to the Mughal court in 1632, wrote of the project: "The buildinge is begun and goes on with excessive labour and cost, prosecuted with extraordinary diligence, Gold and silver esteemed common Mettall, and Marble but as ordinarie stones" (Alexander, 1987:191). However, although the use of the chosen stones is by no means frugal, the use of the most costly of gemstones – emeralds, rubies, diamonds and so on – was avoided, again containing the cost of the project to some degree. A useful comparison is provided by an observation by Tavernier. He recounts that, when adapting the Fort at Agra to his own purposes, Shah Jahan had wished to cover a gallery "with a trellis of rubies and emeralds which would represent, after nature, grapes green and commencing to become red; but this design, which made a great noise throughout the world, required more wealth than he had been able to furnish, and remains unfinished" (Tavernier, 1925:89). Perhaps the

decision to exclude the most valuable stones the Taj – early on in the project Shah Jahan decided against surrounding the tomb with a gold rail encrusted with gems for reasons of what Lahori describes as 'precaution' (Begley and Desai, 1989:73) – shows that the emperor was contained to some degree by financial considerations in his choice of architectural decoration.

Gemstones and ornamental stones dominate the central *parchin kari* programme of the interior marble surfaces of the Taj Mahal mausoleum and it is these areas that will form the focus of discussion here. Coloured marbles are inlaid into white marble and red sandstone exterior surfaces of the mausoleum, mosque, *jawab* and south gateway, highlighting the importance of these buildings over others in the complex (Koch, 2006:126-131,181-193). However, although coloured marbles bring a similar range of colour to the inlaid programme, they are not rare or translucent in appearance, as are the stones that appear on the interior surfaces of the mausoleum itself. The focused use of *parchin kari* fits well with the hierarchical emphasis employed throughout the architectural and decorative programme at the Taj Mahal complex (Koch, 2006:104-109). It is in keeping with the broader use of materials in the tomb complex: the white marble facing into which the gemstones and ornamental stones are laid is reserved solely for the surfaces of the mausoleum itself in contrast to red sandstone used on the mosque, *jawab*, southern gateway and other buildings (Koch, 2005:140-1).

The use of gemstones focused in the area directly around the cenotaphs of Mumtaz Mahal, and

later Shah Jahan himself, was observed at the time of construction. The Mughal writer Salih comments that: "All over the interior and exterior of the mausoleum, especially on the platform containing the illumined cenotaph, carvers of rare workmanship, with delicate craftsmanship, have inlaid a variety of coloured stones and precious gems – the jewels of whose description cannot be contained in the ocean of speech.... And compared to its beautiful execution, which possesses infinite degrees of beauty, the masterpieces of Azrang and the picture galleries of China and Europe have no substance or reality, and appear like mere reflections on water..." (Begley and Desai, 1991:79). The poet Kalim also comments on the use of gemstones and the quality of craftsmanship: "They have inlaid stone flowers in marble,/Which surpass reality in color if not in fragrance./Those red and yellow flowers that dispel the heart's grief,/In reality are carnelian and amber." (Begley & Desai, 1989:83).

The gemstones and ornamental stones used for the inlaid decoration of the mausoleum interior spaces are used to create calligraphic, floral and abstract geometric designs. These designs are combined to create a coherent visual effect, although floral motifs are the most prevalent by comparison with the calligraphic and abstract motifs. This combination of motif is common to much Islamic architecture and is entirely in keeping with Islamic stricture that teaches against the use of figural imagery in a religious context. In the Mughal context, Ebba Koch also highlights the association that also developed between royal authority and the specific use of floral decorative motif as an expression of imperial propaganda (Koch, 2005: 147). In relation to mausoleum architecture, it

is fitting that the deceased should be buried surrounded with images of flowers that make symbolic reference to the gardens of Eden, and calligraphic inscriptions that make direct reference to Paradise, reward for the faithful in the afterlife (Begley & Desai, 1989:235-6, 239, 241).

The use of *parchin kari* in Shah Jahani architecture is often reserved for the walls of architectural spaces associated specifically with the figure of the emperor or his immediate family. The mausoleum at the Taj complex is one example. Similar examples include the marble imperial platform in the Diwan-i Am at Agra Fort, the throne platform and backdrop in the Diwan-i Am in the Lal Qila at Delhi; the Diwan-i Khas at Agra Fort and at Delhi; and finally the private residential chambers of Shah Jahan at Agra Fort which overlooks the Taj Mahal itself (Koch, 1991). *Parchin kari* therefore serves as an echo of the royal presence, a royal trademark used in specific areas of authority in imperial architecture. The *parchin kari* of the mausoleum also serves to highlight spaces and features, most notably the upper cenotaphs themselves, that were the focus of various rites carried out as part of devotional acts of spirituality focused on the cenotaphs themselves (Koch, 2006:229).

Description of the Programme

The description of the *parchin kari* programme at the Taj Mahal is limited here to the decoration on the mausoleum itself as the main focus of the complex. Ebba Koch's description of the programme (Koch, 2006:163-177) and the Jean-Louis Nou's images (Okada, 1993) are the main sources of reference - as written discussion

and description, and photographic record - together with independent observation. Gemstones and ornamental stones are used to decorate the white marble surfaces of the mausoleum and are focused on the following areas: the lower inner walls of the cardinal *pishtaqs*; the lower walls of the cardinal chambers that lie beyond these *pishtaqs*; the lower walls of the central tomb chamber; the surfaces of the octagonal marble screen inside the chamber; on the upper cenotaphs of Mumtaz Mahal and Shah Jahan; and finally on the cenotaphs of the deceased in the crypt below the central chamber.

The first gemstone inlay appears on the inner surfaces of the four cardinal *pishtaqs* of the mausoleum. The lower walls of the recession created by these arched structures are decorated with dado panels. Within each of these panels are depictions of flowering plants carefully relief-carved in white marble. These long panels, which stretch along the lower part of each wall, are framed with a border of *parchin kari* decoration. Along each side of these borders run outlines in black slate and yellow marble. Within this outline is a continuous pattern of stylised floral motifs organised within a black and coloured marble curvilinear framework that resemble the borders of Mughal flower beds (Koch, 2006:137 and Volwahsen, 1970:95).

This trellis framework can be divided into interlinked subsections of lobed cartouches each dominated by two floral forms. The first, of which there are four in each cartouche, is a bloom of dark green-flecked jasper; the central petal of the three on each bloom has been elongated. Black marble curvilinear links that

join the lobes together have been terminated using two further flowers in green jasper. The second type of bloom is of red and yellow flecked jasper with agate, and has five waved petals of approximately equal length; there are two of these in each cartouche. Neither of these motifs are readily recognisable - they are floral approximations that have no identifying botanical features. At the corners of the dados, the same blooms are arranged around a five-lobed cartouche that neatly navigates the right angle without breaking the visual effect. The stones used for this exterior decoration are predominantly opaque, with little lustre, but bold colour effects.

Parchin kari is also used in the four chambers beyond these exterior recessed arches, creating a sense of continuity between the outer areas and inner decorative scheme. Here it also frames dado panels of flowering plants in relief-carved white marble. The continuous inlaid pattern is similar to that of the *pishtaq* walls, with two minor differences. First, the problem of negotiating the corners is handled using a more complex six-lobed shape with four jasper and two carnelian blooms arranged in a black marble framework. The second alteration is in the five-petalled carnelian flowers themselves; the petals are separately arranged, with the central petal standing upright and the subsidiary four falling down to either side, abandoning the waved impression of those outside and showing a greater sense of individual botanical features in the design of the motifs.

Gemstone decoration is used in these cardinal areas, but not on the walls of the recessed corner arches or interior chambers, where decoration is confined to coloured marbles of

black, yellow and white arranged in geometric patterns (Koch, 2006: 176 and Cox & Kennedy, 2000). This careful placing of the gemstone decoration emphasises the cardinal axes of the building, at whose meeting lie the upper cenotaph, and beneath in the crypt the lower tomb, of Mumtaz Mahal (Fig. 1).

A similar type of *parchin kari* is used again on the borders of the relief marble dado panels that extend around the walls and recessed niches of the central chamber of the mausoleum. This use of *parchin kari* running around the dados of the interior chamber, in conjunction with the carved marble flowers, creates a band of floral imagery around the cenotaphs (for a discussion of the imperial significance of this use of floral imagery see Koch, 2005:147). This creates a sense of concentric decorative emphasis around the central area of the tomb chamber (Fig. 1).

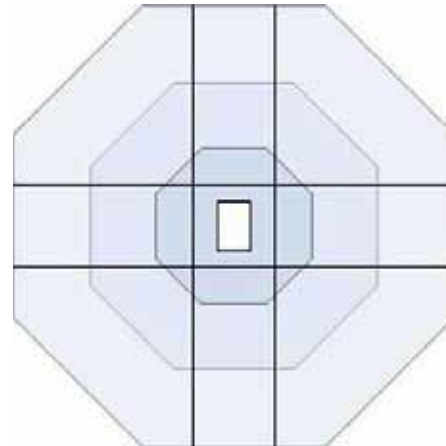


Figure 1: Diagram Showing Hierarchical Zones of Cardinal and Concentric Zones of *Parchin Kari* Decoration of the Mausoleum (not to scale).

The gemstones used in this area of the *parchin kari* scheme include onyx, lapis lazuli, carnelian, jasper and red and yellow marbles, and represent an increase in the variety of stone and colour employed from the outer areas of the mausoleum. There are also some differences in design that mark a progression in the *parchin kari* programme hierarchy from the outer zones. The basic structure of the trellis framework here is heart-shaped with two extended lines curving out of the base to either side (Fig. 2). This shape is turned on its side, and placed first facing one way, and then inversed alternately, to create an ongoing geometric pattern around which to place the floral motifs. Each heart-shaped section has a central five-petalled bloom of onyx and yellow marble, resembling a highly stylised iris. The curved lines are both terminated with a two-part leaf with serrated edges in jasper. At the meeting points of each pair of heart-shapes are two three-petalled carnelian flowers, and at the meeting points of the two curved lines are two four-petalled flowers in agate and lapis lazuli that resemble fuchsias.

Like their outer zone counterparts, none of these floral motifs, given their abstract nature, are identifiable as a particular variety of flower. However, they do mark a progression from those on the outer surfaces on the tomb; the range of stones used is more varied and the designs are of a growing level of sophistication: not only does each bloom incorporate a greater number of types of stone, the attention to detail is greater, as displayed by the serrated edges of the foliage motifs and the increasing complexity of the shapes of the petals.



Figure 2: *Parchin Kari*, Outer Wall of Central Chamber, Photo: Rupinder Khullar, 2000.

The next zone of decoration marks a concentric progression in the decorative hierarchy. It begins with the opulently-carved eight-sided marble screen that surrounds the two cenotaphs in the centre of the upper chamber (Fig. 3). The progression is expressed in a number of ways. First, the depiction of flowers is far more elaborate, concentrated either on individual flowering plants growing from mounds of earth or stones, or on carefully depicted individual blooms hanging from complex, often multicoloured arabesque frameworks (Figs. 4, 5). These flowers show both observation and horticultural knowledge in their depiction, although liberty is taken with their precise features, which are often stylised and manipulated in order to achieve a hyper-real sense of beauty that makes their identities less clear. Many of the same flowers identified, including irises, tulips and narcissi (Koch, 2006: 158) are also represented in the marble relief carvings on the walls of the mausoleum, indicating a clear sense of coherence in the

overall design of the decorative programme. Secondly, the number of gemstones used for each bloom increases dramatically – for instance, the carnelian lotus-type flowers have over sixty pieces in a single bloom (Fig. 4). Thirdly, the quality and rarity of the gemstones used also increases to give a greater impression of expense and opulence.



Figure 3: Interior Chamber, Photo: Rupinder Khullar 2000.



Figure 4: Parchin Kari, Outer Face of Marble Screen, Photo: Rupinder Khullar 2000.



Figure 5: Upper Rail of Marble Screen, Photo: Rupinder Khullar 2000.

The surfaces of both faces of each side of the screen, including those of two high doorways to the north and south, are decorated with floral designs. With the exception of the north and south faces, each side of the screen is made of up of three marble jalis, each about one metre wide, with solid marble borders. Along the borders of the screens are series of black marble cartouches around which the designs of flowering plants are entwined. Each cartouche measures 30cm in length and 11.6cm in width. These cartouches are joined with black and red marble links. Three cartouches run along the top of each screen, totalling nine on each horizontal border of the eight-sided screen. In each of these cartouches are arranged flowering plants and foliage, draped elegantly around their black frameworks. On the outer face, these plants are individual fully flowering lotuses, also identified as chrysanthemum (Koch, 2006:171) (Figs. 4 and 6), carefully picked out in various shades of orange carnelian; three tulip buds are symmetrically arranged on either

flank of the central bloom (Fig. 7). On the inner face of the screen, there are seven heads on each cartouche of flowers resembling a variety of tuberose, picked out in carnelian and what is possibly red garnet.

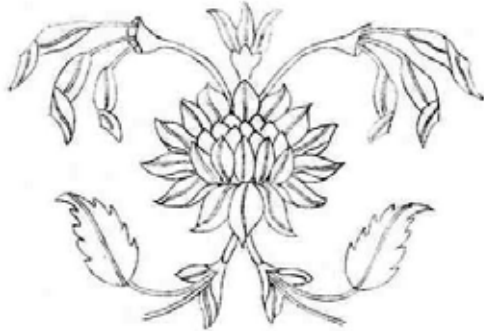


Figure 6: Lotus or Chrysanthemum Flower from Upper Horizontal *Jali* Border on the Outer Face of the Marble Screen.



Figure 7-B.: Examples of *Parchin Kari* Floral Motifs on Marble Screen.

Two vertical borders that separate the three screens in each side have four cartouches on each face (Koch, 2006: 172). On the outer face, these are adorned with upright flowering plants, alternating between lilies of tigers' eye, carnelian, and lapis lazuli and what seem to be delicate fuchsia flowers in tigers' eye and onyx. On the inner face of these panels are four cartouches filled with alternate blooms resembling narcissi and fuchsias (Koch, 2006: 172). The petals and central flute of the narcissi-type bloom and the extended flowers of those that resemble fuchsias and hang downwards from their stems are made of carnelian, jasper and onyx. On the north and south faces of the screen, the middle *jali* is replaced by a doorway that extends upwards from these borders a further three cartouches to reach over two metres in height. Whilst the spandrels over these arched entrances are decorated with arabesque designs, with a waved yellow stone design stretching across their entirety on both faces of each doorway, the remainder of the border designs are the same as those of the marble panels to either side.

At each of the eight angles of the screen are pinnacles and an extended vertical border, with an extra cartouche. At these corners, the craftsmen were obliged to inlay their designs around the obtuse and acute angles, making their achievement yet more remarkable. The outer angles of the corners are ornamented with five inlaid cartouches, with alternate tuberose motifs of garnet, carnelian and jasper, and fuchsias or honeysuckle of agate, carnelian, lapis lazuli and jasper (Koch, 2006: 172). The inner angles are adorned with vibrant red carnelian poppies with elaborately designed serrated-edged leaves of jasper and

what is perhaps a green quartz or feldspar (Koch, 2006:172).

Between the uppermost sections of these corner pillars, a pierced frieze runs around the top of the screens, decorated with asymmetrical depictions of individual flowering plants. There are two types of plant alternated around the entire screen on the outer face, both made predominantly of a darker brownish carnelian, agate and jasper, are identifiable as tulips and lotuses (Fig. 5) (Koch, 2006:172). The inner face of the frieze is decorated uniformly with plants showing three heads of five- and six-petalled flowers with two small buds below. They are made of jasper with petals of rich carnelian orange, the richly coloured, simply shaped petals similar to the blooms of a champa tree, a member of the magnolia family, which has been identified by David Lentz as being amongst those planted by the Mughal emperors in their gardens (Moynihan, 1999: 49). They also resemble the Mughal artist Mansur's depiction of the Western Asiatic tulip (Welch, 1985: 220). Given the presence of tulip images elsewhere in the mausoleum's decoration, this would seem a more likely identification of this bloom.

There are four standard types of leaf used to depict the foliage of these plants: a folded leaf with a single central vein and smooth edges; a longer, waved leaf with a single vein and straight edges; a serrated edged leaf; and a three lobed leaf with pointed ends. These are made from jaspers, and green stones resembling feldspar or green quartz, all of which occur naturally in India (Rutland, 1974). They are used in equal quantity throughout the screen decoration in a stylised way not in keeping with

the true features of the plants depicted. It is of interest that a serrated edge leaf, known as the saz leaf, also appears in much Iznik ware of the sixteenth- and seventeenth-century, which in turn has its origins in Chinese blue and white ceramics (Porter, 1995: 104). The use of these types of leaf is continued in the decoration of the two cenotaphs that lie within the confines of the marble screen.

The final and ultimate zone of decoration appears on the cenotaph of Mumtaz Mahal that lies at the centre of both the decorative and architectural scheme (Fig. 1). That of the emperor was added later, but it retains the stylistic themes of that of his queen, and so maintains a sense of visual continuity (Fig. 3). The cenotaph of Shah Jahan is a few centimetres larger in each direction so that it dominates that of Mumtaz Mahal despite its less prominent position. There are two similar cenotaphs in the crypt below. Each of the four cenotaphs comprises three distinct sections from base to top: the rectangular marble base, three supporting tiers, and the uppermost rectangular marble box (Fig. 3) (Koch, 2006: 167-171).

The cenotaph of Mumtaz Mahal is decorated with a combination of calligraphic and floral motif set into a framework of decorative cartouches and designs. Floral designs decorate the marble base, and supporting tiers and sides of the marble box itself, with calligraphy covering the upper face. Looking first at the base, an alternating series of two types of flowering plants sandwiched between two decorative borders runs around the base of Mumtaz Mahal's cenotaph. One of the plants is purposefully asymmetrical, with flowers

at various stages of bloom depicted within a single image; the plants are carefully created using predominantly jaspers of all hues, mainly green and yellow, combined with carefully chosen, thickly streaked agates and feldspar or green quartz. The images resemble the colours and design of the lily on the outer frieze of the marble screen, a plant known in northern India at the time, and frequently depicted in Mughal manuscripts (Crowe et al., 1972: 194-5).

The second kind of plant is more controlled, with strict symmetry observed in its rather constrained depiction that contrasts well with its exuberant counterparts. The five-petalled flowers are of jasper, feldspar or green quartz and carnelian, and, given their similarity of colour and petal shape to those around them, might be lilies as well. Below these runs a border of stylised floral patterning, whilst above are closed floral buds in carnelian, either alone or in groups of three, which hang from a simple geometric framework. The upper face of the base is decorated with an elaborate marble framework from which all kinds of flowers and buds emanate. The two varieties are a narcissus-type flower and a variety with four, rather square-shaped petals on each bloom, perhaps a poppy or anemone. This symmetrical design is encased within two borders of wavy patterns incorporating single jasper leaves with carnelian and agate tulip-like flowers.

The lowest of the supporting tiers above has at its south end an epitaph to the deceased, giving the words of a prayer of angels interceding with Allah for the soul of the deceased (Koch, 2006: 171). The remaining three sides are ornamented with wave patterns of floral motifs. The vast array of gemstones used here includes red carnelian

and yellow carnelian or amber, jasper, stones resembling feldspar or green quartz, onyx, opaque marbles and agates. The four sides and top of the rectangular marble box above are covered with elaborately inlaid calligraphic passages surrounded by floral borders (Fig. 9). The passages are taken from the Qur'an (Koch, 2006:171). They make reference to the rewards in Paradise and the gardens of Eden that await the faithful and penitent believer (Begley & Desai, 1989:235). These passages are placed on the pivotal feature of the mausoleum. They are executed in black stone similar to that of the remainder of the mausoleum, but here the diminutive size demanded far greater skill in its execution. As elsewhere, the script is organised into rectangular panels of text.

The cenotaph of Shah Jahan was added to the mausoleum after that of his wife – that it was not originally intended as his last resting place is evident in the asymmetrical location of his cenotaph in an otherwise symmetrical plan (Fig. 3 and Begley & Desai, 1989:141-160). However, the decoration of the cenotaph is in keeping with the remainder of the decorative scheme and follows a similar pattern of organisation with a few changes made to the motifs. As with his wife's cenotaph, a band of individual flowering plants in mounds placed within decorative borders runs around the sides of the base. However, here each of the two types of alternating plants is placed within its own decorative frame of multi-coloured marbles. The frames themselves, which imitate architectural forms, are made from agates, carnelian, jasper, onyx and marbles. The two plants chosen for depiction resemble lilies and crown imperials (Koch, 2006:171), shown in onyx, carnelian and jasper. The crown imperial-

type blooms are of particular interest; on the lower stems are four flowers fully in bloom, whilst above are six delicate buds waiting to open, showing two different stages of the variety's development displayed on a single plant. A border running around the top of the base from which hang yellow and orange blooms of carnelian, or perhaps amber, and opaque green stones.

The upper face of the base shows an elaborate geometrical framework within which both fully bloomed tulip-type flowers and their buds are intertwined amongst the curvaceous patterns. The gems used are dominated by carnelian and jasper, with the flowers and buds extending from opaque black and red marble stems. Other stylised flowers and buds made primarily of carnelian form part of the framework itself and link the designs together in a coherent and graceful way. The sloped sides of the upper part of the cenotaph, like that of Mumtaz Mahal, are decorated with an extraordinary display of gemstones. Here, the three tiers are adorned with highly stylised blooms hanging from curvilinear border patterns.

The sides of the box above show alternating plants within individual architectural frames that echo those on the base. However, here the plants depicted are perhaps tulips in yellow carnelian, or perhaps amber, and rich poppies in vibrant red carnelian. Poppies are identified as flowers of suffering and death, which may be the intended association given the tomb setting here (Koch, 2006:171). The vast array of gemstones used here, together with the carnelians for the flowers already mentioned, include onyx, agates, feldspar or green quartz, jasper, lapis lazuli and other opaque

ornamental stones.

The upper face of Shah Jahan's cenotaph, surmounted by the traditional pen box, is dominated, unlike that of Mumtaz Mahal, entirely by floral depictions, both individual plants and floral motifs (Fig. 8) (Koch, 2006:222). At the head of the cenotaph is a circular floral motif within a square. At its centre is an orange carnelian flower with sixteen petals and a rich blue and orange centre. Radiating out from here are eight further blooms – four trumpeted fuchsia-type flowers in rich yellow carnelian alternated with four five-petalled orange carnelian flowers. The fluted flowers have two waved but symmetrical leaves on either side, whilst the others only have small leaves at their bases. This motif is surrounded by a ring of sixty-four round gems, including alternating green stones, perhaps beryls, and orange carnelians. Outside this there are a further sixty-four waved jaspers that resemble the rays of the sun (Koch, 2006:171).

The rectangular panel that comprises the remainder of the cenotaph's upper surface contains an inlaid pen box with further curvilinear patterns around which floral depictions are arranged. Cornucopia motifs also appear as part of the decoration (Koch, 2006:171). At the foot is depicted in a wide variety of gemstones and colours a fully-flowering tulip-type plant. The plant springs from a cluster of smooth-sided leaves at its base, with stems of leaves and carnelian flowers arranged symmetrically around a central spine. This motif, although still not entirely in keeping with nature, is the most elaborate and naturalistic depiction of an individual plant anywhere in the *parchin kari* scheme at the Taj Mahal.

In the crypt below are the two cenotaphs of the Emperor and his queen (Begley & Desai, 1989:104, fig. 45). These cenotaphs are more restrained and meditative pieces than the cenotaphs above. In natural light, they are not immediately visible as one enters the tomb, and in the gloom of the crypt, they are much harder to see than those above. The quality of the craftsmanship is, however, of the same standard as that of the cenotaphs above, but the focus here is on Qur'anic inscription rather than opulent floral displays (Begley & Desai, 1989:238-241). It may have been considered that this would have been a more fitting and sober theme for the markers of the actual graves of the deceased, whilst the cenotaphs upstairs would have provided a display of such wealth and opulence that all who saw them would be in awe of the spectacle. The upper cenotaphs are more easily visible both due to the greater degree of available natural light, and their more spacious and accessible surroundings. It could therefore be concluded that the display of wealth evident in the upper cenotaphs rather than restrained piety of those in the crypt was intended as the dominant message to those who visited the tomb.

The base of Mumtaz Mahal's lower cenotaph bears almost no decoration at all, except for a band of subtle abstract floral decoration that runs quietly around its sides. On top of this relatively plain marble construction sits the upper part of the sarcophagus. Like the cenotaph above, it has three tiers of sloped sides that rise to the rectangular box at the top. These are decorated with further sober bands of floral decoration of blooms resembling tulips, irises and fuchsias in agate and carnelian. The top of the tomb, as on the upper cenotaph,

is decorated on its four sides and upper face, with black and red Arabic inscriptions (Begley & Desai, 1989:239, 241). The ninety-nine names of Allah are written in individual red marble frames in three lines of sixteen on each of the long sides of the tomb (Begley & Desai, 1989:241). The upper face has black marble Qur'anic script organised into rectangular panels, with an epitaph at the foot of the tomb (Koch, 2006: 174).

Shah Jahan's tomb is more elaborately decorated and, as in the upper chamber, the emphasis here is not on calligraphy but on floral decoration. The sides of base are covered with geometric frameworks from which hang individual floral motifs. The upper face of the base has a wide, curvilinear wave pattern from which extend ten-petalled carnelian flowers and smooth-edged leaves. The tiered sloping sides have decorative floral wave patterns of blooms resembling tulips, irises and fuchsias, as on the tomb of Mumtaz Mahal, but the treatment of the upper box is different. Although the organisation of an epitaph at the foot combined with the framework of three lines of sixteen cartouches is retained, the ninety-nine names of Allah are replaced by individual flowering plants, alternating between tulip-type flowers and poppies in varying shades of carnelian. The upper face is also decorated with floral motifs. The motifs on cenotaph in the chamber above are echoed here, where the basic design of a round floral motif at the head and rectangular panel with the pen box further down is retained, but the intricacy of the design is diminished.

These two sets of cenotaphs mark the central physical focus of the tomb complex. The

upper cenotaphs are the decorative highlight. This is achieved by a combination of factors: the complexity of motif; the combination of naturalism and stylisation in the floral depictions alongside accomplished calligraphic passages; the use of a wide variety of ornamental stones, gemstones and coloured marbles; the quality of the craftsmanship; and the decoration of all available surfaces in a harmonious and

balanced way. It is the combination of these features that distinguishes the decoration of these cenotaphs from the remainder of the inlaid programme. In these ways, they represent the climax of the *parchin kari* decorative scheme. The cenotaph of Mumtaz Mahal, as the original occupant of the tomb before the death of her husband in 1666, is the pivotal focus.



Figure 8: Upper Cenotaph of Shah Jahan, Photo: Rupinder Khullar 2000.



Figure 8: Upper Cenotaph of Mumtaz Mahal, Photo: Rupinder Khullar 2000.

Conclusion: The Notion of Hierarchy

The *parchin kari* decoration on the mausoleum is organised according to a horizontal hierarchy. The decoration is focused at head height or below to give the greatest visibility possible. As part of this horizontal hierarchy, it is organised according to two further concepts. First, it is arranged according to the four cardinal directions, thereby creating an axial emphasis

with the tomb of Mumtaz Mahal as the pivotal feature (Fig. 1). This emphasis is achieved by locating the inlaid decoration first around the carved marble dados of the cardinal recessed arches that dominate the four faces of the mausoleum exterior. It is also placed in the four cardinal rooms that lie behind these high recessions, but noticeably not in the corner

rooms of the eight smaller chambers that surround the central tomb chamber ('Corner Chamber' section in Cox and Kennedy, 2000 and Koch, 2006:229). This hierarchy according to location creates a strong emphasis on the cardinal axes of the building.

Second, the *parchin kari* is organised according to a series of octagonal concentric zones that surround the central cenotaphs (Fig. 1). These hierarchical zones are expressed in a number of ways, each distinct from the others according to three factors. These factors comprise materials, technical design and artistic motif. The use of increasingly rare, colourful and varied stones marks a clear progression from the outer reaches of the building to the climax at the cenotaphs on which the widest variety of materials are employed. The most colourful and translucent stones are also reserved in greatest number for this climatic area.

The technical design of the flowers becomes more complex, illustrated in the increasing numbers of both stones used to create a single motif and elements, comprising petals, leaves and specific botanical features, in each bloom or floral image (Figs. 7). In terms of artistic motif, there is an increasing sense of naturalism and observation in the floral motifs, with the climax reached with the cenotaph of Shah Jahan and the individual plants and complex floral motifs depicted on its surfaces. The frameworks in which the floral images are placed also become increasingly complex in the number and variety of stones used in their execution and in the number of elements included in their design.

This combination of an axial and concentric sense of hierarchy appears in both Islamic

and Indian cosmological diagrams reflecting cosmic processes and organisation. In particular, astrolabes, instruments designed to explore the celestial spheres and observe stellar motions, take this form (Ardalan & Bakhtiar, 1973:11, 18, 31). Similarly, the combination of an emphasis on the cardinal directions with geometric shapes, in this case the octagon, is familiar from diagrams and *mandalas* in the *vastu shastras* and is linked to spirituality and astrological themes (Sutradhar et al., 1997:21; Puri, 1997:25 and 85).

Some sense of vertical hierarchy is created in the contrast in decoration between the upper and lower cenotaphs. The decoration that appears on the upper cenotaphs is far more complex and visually impressive than the subtler echoes on the cenotaphs below. The double-skinned bulbous dome and finial that surmount the building create in architectural form the top of this vertical axis, with the solar motif at the apex of the dome interior creating the inlaid apex of the vertical decorative hierarchy. Again, the upper cenotaph of Mumtaz Mahal is the focus of this vertical organisation.

Understanding how the notion of hierarchy is manifest in the decorative and architectural programme, here specifically the *parchin kari* scheme, at the Taj Mahal first enhances understanding of the over-riding concepts that dictated the eventual appearance of the complex. The *parchin kari* technique used by today's craftsmen who continue to work both in Agra and beyond have also retained their knowledge of the practical methods and materials. Inlaid decorative work is currently being carried out on the Radhasvami Samdhi, a Hindu temple faced in marble within Agra itself (begun 1904), although lack of funds

limit the quality and extent to which this type of decoration is employed. However, without an understanding of this basic concept of hierarchy and how it is manifest in the materials, technical design and artistic motifs of the Mughal *parchin kari* schemes, the continued use of this technique is limited. (Thanks here to Tom Fraser at the Prince's School of Traditional Arts in London for his very helpful comments and discussion of this point.).

The *parchin kari* decorative scheme, and the underlying notion of hierarchy that dictates its overall design, relates seamlessly to the decorative and architectural programme of the Taj Mahal complex as a whole. The relationship between the tomb's architecture and its decoration has been carefully manipulated so that neither dominates, but instead complements, the other to create a symbiotic balance. The hierarchy of decorative form, not only within the *parchin kari* scheme, but in the broader decorative programme, is combined with a sensitive execution of motifs, which are restrained and given plenty of space to 'breathe', enhancing the architectural forms and space around which they seem to weave. It is this sense of unity between architecture and decoration, of which the *parchin kari* of the Taj Mahal is an integral part, which creates an effect of visual opulence hard to equal anywhere in the world.

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