THE ROLE OF THE HORSE IN MUGHAL MINIATURE PAINTINGS

A Senior Scholars Thesis

by

EMILY MULLINS

Submitted to the Office of Undergraduate Research
Texas A&M University
in partial fulfillment of the requirements for the designation as

UNDERGRADUATE RESEARCH SCHOLAR

April 2011

Major: International Studies

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Director for Honors and Undergraduate Research: Sumana Datta

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ABSTRACT

The Role of the Horse in Mughal Miniature Paintings. (April 2011)

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The Mughal Empire lasted from 1526 until 1858 in present day Northern India and Pakistan, but was under strong imperial control until 1707. The Mughal emperors were Islamic invaders who combined their culture with that of the native Hindus. This especially showed in their miniature paintings, illustrations in books and manuscripts. Books were considered a commodity, and required a patron who could afford an entire workshop of artisans. Mughal artists created a unique style, drawing from Persian and Indian influences with heavy input from their patrons.

The paintings were heavily stylized, but the stylizations were specific. No previous study has used the horse as a focus to analyze miniatures, so this research utilizes detailed information about horse conformation and coat coloring to understand the visual language of the miniatures. By combing these two fields, it is possible to gain new information about the painting methods, and assuming involvement of royal patronage, the importance of the horse in Mughal society. In order to accurately analyze the artistic

stylization, it is necessary to explore the overall appearance of horse breeds at the time. Contemporary observations can be compared with modern understandings of equine breeds, conformation, and color.

The research indicates that artists attempted to accurately portray animals that resemble modern breeds from the area; the horses in the paintings, like their modern counterparts, had arched necks, long, slender legs, and thin tails, but the miniatures portrayed animals with large bodies, which contrasts the lean build of modern breeds. In terms of coloration, the paintings usually portrayed colors correctly, except that animals with black-based coat patterns never showed black on their ears, as real animals would. This would imply that techniques such as cropping the ears was common place, thus the black was removed. The lack of certain colors and high appearance of others shows the importance of appearance among the royalty. The consistency in coat colors between two paintings of the same scene show a desire to maintain historical accuracy. Overall, by combining knowledge and careful study of horse breeds, colors, and conformation with miniatures, new insight can be uncovered about Mughal society.

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CHAPTER I

INTRODUCTION

The Mughal Empire

In 1526, a Timurid prince named Zahir ad-Din Muhammad Babur conquered the land called Hindustan (present-day Northern India and Pakistan) and established the Mughal Empire. The word "Mughal" translates to "Mongolian" in both Arabic and Persian, referencing Babur's maternal lineage from Chingiz Kahn. The Empire lasted until 1858 when Great Britain exiled the last emperor, but from 1526 to 1707 the Mughal Empire was in its cultural and political prime[1].

Babur (r. 1526-1530) had never intended to conquer India, but instead had coveted the city of Samarkand. He was unable to maintain a permanent hold on the city, and thus became ruler over Northern India. He hated his new land, believing that Hindu art lacked "form or symmetry" and he often complained of the humid weather that ruined his armor and books, the food, and the lack of quality horses. With such disdain for the land, Babur made his environment more comfortable for himself by bringing in the arts and cultures from his homeland[2].

This thesis follows the style of *Muqarnas*.

Nasir ud-din Muhammad Humayun, Babur's eldest son, was unable to hold together the newly formed Kingdom and in 1540, he was exiled by his rival, Sher Kahn. He and a small group of followers fled to Sind[3]. It was during his exile that Humayun showed interest in miniature paintings. He sought refuge in the court of Safavid Shah Tahmasp in Iran, and the sympathetic Shah supplied Humayun with troops, but the emperor also took great interest in his artists. Tahmasp had in the past heavily patronized the artists in his court, but with his declining interest, Humayun was able to employ the artists for his own retinue. Two artists in particular proved to be essential additions: Mir Sayyid Ali and Abd as-Samad. When Humayun regained the thrown in Delhi in 1555, they followed him and they remained in his workshop after his death seven months later. They brought the Safavid Iranian court painting tradition to India, and helped mold the Mughal style[4].

When Humayun took back his empire, he found the country in a more stable shape: Sher Kahn had created a centralized, organized government in which Humayun was able to easily place himself as the new head. Humayun considered himself a devout Muslim, but he displayed a great amount of religious tolerance which gained high favor among the largely Hindu population[5]. It was this characteristic that helped create a unique culture in Mughal India: the presence of Islamic rulers who not only allowed the practice of other religions, but often even incorporated them into their own beliefs and culture. This could especially be seen under the rule of Humayun's son, Akbar.

Jalal ad-Din Mohammad Akbar (r. 1556-1605) was only 13 when he became ruler, and the kingdom was still far from secure[6]. Despite frequently engaging in war with rival rulers, he was able to devote a large amount of time and money into the development of art. He was religiously open-minded, and deeply curious in all faiths and this showed in his patronage of the arts. The Mughal style began to define itself as a blending of both Muslim and Hindu styles, with artisans from both India and Persia being employed seemingly indiscriminately[7].

When Akbar's son, Salim, took the throne in 1605, he adopted the name Jahangir, meaning "World-Seizer." Unlike his predecessors, he inherited a stable kingdom that already had established workshops of royal artists. Jahangir considered his taste in art to be just as mature as his artists' style, and he heavily invested in the arts[8]. Especially unique in Jahangir's patronage, was the appearance of Christian subjects in painting. Jahangir still considered himself Muslim, if only nominally so.

The next Mughal ruler, Khurram, changed his name to Shah Jahan ("The World Ruler") when he ascended to the throne. Shah Jahan was not the eldest son of Jahangir, but in Mughal society, nobility was gained, not inherited. He ensured his rule by murdering his rivals, including his older brother, Khusrau. While he was a failed military man[9], he was a patron of the arts, but his interest rested more in architecture than in painting[10]. In 1658, one of Shah Jahan's sons, Aurangzib ("Throne-Ornament") challenged his father for power, and ruthlessly took control of the empire. Aurangzib was, unlike his

predecessors, an extremely orthodox Muslim, and the representation of living forms that defined the Mughal style was intolerable according to his faith[11].Under Aurangzib the Mughal style was slowly stripped away as art was expected to follow more stylized and conservative themes[12]. Upon Aurangzib's death, the Mughal Empire lost its stability and eventually fell into the hands of the British Empire[13].

Painting and Mughal patronage

Islamic culture was highly literate for its time, and books were highly valued. Due to the expense of producing books, possession of them was a symbol of wealth and made them desired spoils of war. The creation of a well-made book required access to an entire workshop of artists and artisans to copy text, paint illustrations, and bind it all together. Thus books were most often created by patrons who were wealthy enough to afford their own workshops.

When a book was commissioned, either an administrator or a master artist, often with the input of the patron, would select episodes to paint, and then assign painters in the workshop to specific episodes. Multiple artists worked on a single painting, or miniature, with often the head artist designing the page. Younger or minor artists would paint the background and the majority of the painting, but the important portraits were reserved for either the master artist or another highly esteemed artist[14].

Obviously, the subjects of paintings were heavily influenced by the patron's tastes, and the tastes especially of the emperors played a role in shaping the Mughal style. Humayun took special interest in natural history, commissioning many paintings recording plants and wild animals in great detail. The early emperors took a great interest in recording their new surroundings, and thus wildlife was painted in high detail. It is important to note, however, that over time, paintings of wildlife showed striking similarities, implying that artists did not necessarily observe living subjects but took their inspiration from older paintings[15]. Thus, accuracy in animal representation cannot be assumed when observing Mughal miniatures. Instead, the past influences and ideals of the time play a role in the creation of the paintings.

Horses in Mughal India

The horse was a crucial part of the Indian military, but the empire had no established breeding program, and thus relied on trade as a source for its horseflesh. Babur had lamented upon his conquering Hindustan that no appropriate war mounts were locally available[16]. Because of the climate and the lack of arable land, there was a fine balance between land used for pastures for breeding stables and land used to grow crops. The land could only support so much of either, and many rulers chose food crops, thus necessitating the importation of cavalry mounts[17].

The result was a system of fairs and horse trading. In Early Medieval India, shortly before Mughal predominance, fairs were open to anyone who had the expendable

resources to trade: rulers, nobles, and common folk. Some fairs, however, were strictly for rulers.

The belief held at the time was that the best war mounts came from Northern Islamic lands[18]. These horses were what are today known as part of the Arabian breed. The Bedouin tribes had been breeding the horse for centuries, but under Islamic influence, the breed began to more closely resemble the modern Arabian. Considered a gift from Allah, The breed need to be "Asil" or pure as intended by Allah. The nomadic people, who often carried out raids, required a mount that had both speed and endurance[19]. These animals, collectively called *tazi* or Arabian horses were classified by the tribes from which they were purchased[20]. One such tribe, the Kohi people, was a small nomadic group in northeastern Iran, known for frequently raiding surrounding peoples[21]. Their horses, *kohi*, were considered especially fit for war; however, the most highly regarded, and thus most expensive *tazi* horse was the *bahri*, popular among early sultanates[22]. The animal seen today is best known for its concave or "dished" face and its high set tail that waves like a flag. It also tends to be light boned, but with an arched neck and thin throatlatch[23].

From the Central Asian steppe lands, the Turkoman horse was popular. The Turkoman (or Turkmene depending on the source) is a now extinct breed, but one of its many branches has carried on into the modern day under the name of the Akhal-Teke. The Turkoman was created by the nomadic people in present day Turkmenistan. The modern

name comes from the Akhal, an oasis protected by the Kopet Dag Mountains (once part of the Persian Empire) and "Teke" from the tribe which developed the breed. While horses were sold and the breed was able to influence other breeding programs, the Akhal-Teke horse stayed pure due to its isolated location. The people needed a horse that could survive harsh weather with little food or water, so the result was a lean horse with a thin, tall build. It has a high head carriage, with a narrow chest, straight shoulders, prominent withers, long legs, with thin skin and lean muscling. It would be appropriate to compare the build of the Akhal-Teke to that of a greyhound[24]. Reports from the 18th century admire the horse for its stamina and its unique iridescent coat[25]. For the Mughals, the *tatari* horses were popular[26]; the Tartar people bred smaller Turkomans, mostly chestnuts, bays and greys, with some painted horses as well[27].

In the 18th century, near the end of the Mughal reign, Turkoman breeds from Hindu Kush were the most popular mounts. These animals were bred by nomads and purchased by Afghan traders. Because of the animals' generally poor condition upon purchase, the traders could buy them cheaply, then fatten them on green pastures in Southern Afghanistan, and fetch a higher price later at horse fairs. As the traders travelled south, they stopped at local fairs, selling some stock there and purchasing local stock from breeding centers in Rajasthan, Punja, and Rohilkand. The horses from Rajasthan were the predecessors to the modern Kathiawari and Marwari. They are named after the areas in Rajasthan from which they came, the Kathiawari from Kathiawar, the Marwari from Marwar[28]. They were bred by the local Rajput rulers, and the only local mounts to be

accepted in the Mughal cavalry[29]. Both breeds today are known for their inward curling ears, which sometimes touch. Otherwise, the Marwari tends to be larger. Both have a slender build, with long legs. They tend to have upright shoulders, which facilitates lifting their legs out of the sand, and simultaneously shortens their stride, and thus speed, but creates a more comfortable gait[30]. By the 18th century, sea trade for the Arabian horses became impractical, and instead, horses from Kathiawar became the products of sea trade.

Thus the stock was mixed and interchanged. Officers who needed to by a large quantity of war mounts were presented only a few specimens at the fair, and bought the lot based on those few. The officers immediately sold the best, most likely to regain some lost money, and the worst, possibly to cull those unfit for service. This meant that the war horse that reached battle was a mid-grade animal. The Mughal cavalry mostly consisted, then, of animals that were imported, not local breeds, which were considered inferior stock[31]. All of these horses described are examples of breeds of horses. A breed is a group of horses that shares certain genetic traits due to selective breeding for specific purposes, and is registered in official stud books. What unifies these specific breeds is that they all fall under another category, called type. The four types of horses are coldbloods, warmbloods, hotbloods, and ponies. A pony is simply a horse that measures no more than 14.2 hands high (58 inches). A coldblood is a heavy breed, usually bred for hauling or farm work. A warmblood is a cross between a hotblood and coldblood, and

most high-level sport horses today fall under this type. A hotblood is a horse that is high-strung, lightly boned and built for speed and stamina[32].

All the modern breeds mentioned above are hotblood breeds, and this would not change unless different animals were brought into the genetic pool. Thus, we can make some assumptions about the breeds that would have been present in Mughal India. We can first assume that the horses were light-boned and lean-muscled, that their legs were long in comparison to their bodies, that they had arched, upright necks, and they were high-spirited. The Arabian and Turkoman were the preferred animals, and this shows in the modern Indian breeds, which have heavy influence from both.

Conformation, coloration, and markings of horses

Conformation refers to the proportions and angles of the parts of the horse. Figure 1 gives the important terms for equine anatomy that will be examined in this study.

The next part to consider is the color or coat patterns and markings of horses. The basic coat color of a horse is determined by two genes that either give the horse a red base or a black base. These create the most basic coat colors. The black base is dominant, and this will produce bays and blacks[33]. Bay is the most common equine color, and it can vary from a reddish brown to almost black body, but it always has black points; the points are the muzzle, the tips of the ears, the legs, the mane and the tail of the horse. A black horse is less common but has two types: non-fading, which can have an iridescent bluish shine,

or fading, which lacks the shine and will lose the pure black color if not kept out of constant sunlight[34]. Bay is more common because its gene for black distribution is dominant. If a horse receives the red base, the result is a chestnut horse[35]. A chestnut's color can range from light to an extremely dark reddish brown, known as a liver chestnut. The mane and tail can be the same color or lighter than the body, and if so, it is called a flaxen mane. Because the red trait is recessive, bay or black parents can have a chestnut foal, but two chestnuts will always produce another chestnut[36].
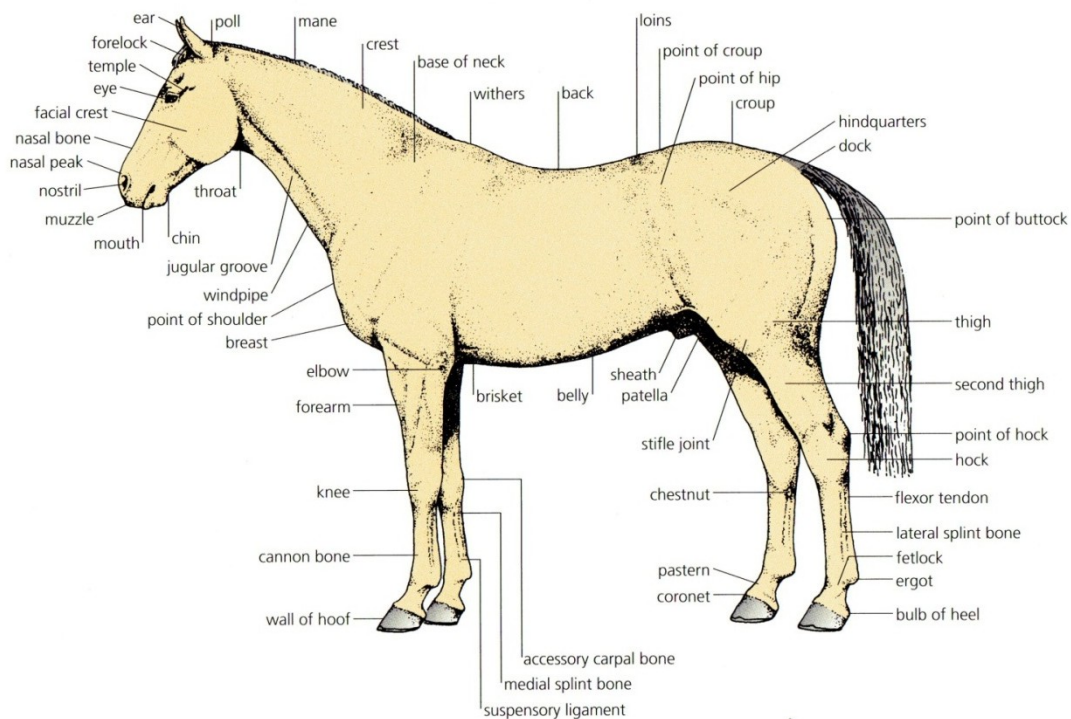
Figure 1. Parts of the horse (Oliver, Robert, Bob Langrish *A Photographic Guide to Conformation*, drawing by Dianne Breeze, p. 14)

The next important gene in determining color is the Cream dilution gene. In the red family, this is responsible for creating palomino horses[37]: a horse with a golden coat with a white or near white mane and tail[38]. In the black family, this is responsible for the creation of the buckskin, often miscalled a dun[39]. A buckskin has a yellowish/gold body with black points; a dun has primitive markings: a dorsal stripe and sometimes zebra stripes down the legs and a stripe down the shoulder[40].

Grey is unique in equine coloration, because it is not a color but a pattern that superimposes over the horse's genetic color. Grey horses can be born any color but they "grey out" as they age. Each horse greys out at its own pace, and some eventually grow to appear completely white. A horse can grey out two different ways: he can dapple where he has dark rings around a whiter center, or he can become flea bitten, where he maintains speckles of the base color. A coat color that works in a similar way is called roan. A roan horse can be any base color, but a pattern of white hairs superimposes over the coat, leaving the head and legs the base color. Unlike grey colored horses, a roan does not fade lighter, though, but maintains the pattern its entire life. If the base color is chestnut, the horse is a strawberry roan, if it is a bay, it is a red roan, and if it is black, it is a blue roan[41].

A final set of markings worth mentioning is colored or pinto patterns. A colored horse can have any base coat, but it has a pattern of large white markings that create striking

patterns. The most common patter type is tobiano. A tobiano generally has large solid blotches of color, which covers the head, along with a shield-like pattern down the front of the neck and chest, and large markings on one or both flanks. He can be predominantly colored or white, but the tail is generally dual-colored[42]. The other most common pattern, overo, is immediately recognizable for its more jagged and "loud" markings. It generally has a white or bald face, with markings on the neck, lower stomach, but not passing over the back. The legs are generally colored and the tail is monochrome[43].

Horses can also have markings on their face and legs, which can be seen in Figure 1. In a study conducted in 1996, 27 Marwari horses' coat patterns were observed. The most common color by far was "brown" (most likely meaning bay) at 70.4%, with other colors such as chestnut, white (i.e. grey), roan, and piebald. A third of the horses were pinto, and only 29.7% of the animals had no markings at all[44]. In the *Faras-nama* (the Book of the Horse) by a Mughal named Rangin, the translator mentions four "radical and auspicious" colors in which Mughals characterized horses: *abyaz,* pure white, *adham,* pure black, *bur,* chestnut, and *zarda,* what the translator defined as dun, but essentially any golden or yellow colored coat. Bay (*kumyat*) was not an auspicious color, but a mix of chestnut and black. According to Rangin, a Muslim who lived in Mughal India, the most preferred color of horse was a bay, then a khaki dun (a translation of the word *khing*, which the translator claims is vague), then a buckskin (*samand*), then a colored horse, then followed by a light grey (*boz*), followed by black, then red-dun, then

red roan, grey with a dark mane and tail, chestnut, and finally palomino. The last colors listed were horses with a blaze and four white stockings, and a horse flecked with white hairs (most likely other roans).

The Mughals also had superstitions regarding markings. If a horse had a small star on its head, it was considered bad luck if the horse lacked white markings on the legs as well, but if the marking was large enough that it could not be covered by a potential buyer's thumb, the mark was neutral. If the mark extended into a bald face, it was considered auspicious, but if a blaze was broken or had hairs of the base color in it, the horse was called a "scorpion" and the mark considered an extremely ill-omen. If the horse was wall-eyed (had a blue or "human eye") in one eye, it was to avoided, but if both eyes showed the trait, this was lucky. In terms of the legs, if the right fore had white, this was considered desirable, but should be avoided if seen in the left or either hind leg (even if there was a star on the horse's face)[45]. With less than 30% of horses being of solid color, it would seem that most horses in Mughal culture would be considered undesirable, but Rangin later describes that by rubbing away the hair on an unsightly facial marking and applying "dry turmeric", the hair would grow back, likely in the color of the base coat. It is also important to note that procedures for both cropping and sewing the ears together to give a pricked appearance were explained in the *Faras-Nama* but it is difficult to ascertain how often these procedures were put to use[46].

The horse serves as an interesting focal point in Mughal miniatures. Horses were highly revered by both Hindu and Islamic culture, and as the horse fairs show, the horse trade was a great portion of the economy. The horse has always been a symbol of wealth, but it is also a subject which few art historians have studied. Because they are not always the main subject of the painting, their representation can show certain trends among the Mughal artists, but observation of the paintings can also bring up new information or simply verification of previously known information about the Mughal horse culture. With knowledge of horse breeding from contemporary sources and studies of modern animals in India, reality can be compared with representation in paintings. With such heavy input from the patron, it is not unreasonable that horse could have been influenced by the patron as well. The question that then arises is whether artists sought to accurately portray the horse used in the illustrated episode, or whether the artists followed Mughal ideals.

CHAPTER II

METHODS

This research relies on the observation of Mughal Miniatures. While the Mughal Empire was at its peak from 1526 to 1707, painting was not heavily patronized until Humayun's exile in 1540. Paintings from the rule of Babur were examined, but the majority of paintings was chosen from the reigns of Akbar, Jahangir, and Shah Jahan. Aurangzeb did not support the representation of humans and animals as his predecessors, thus no paintings from his rule were observed. Paintings were chosen based on the presence of unarmored, visible horses. Paintings were limited to Imperial patronage to gain an understanding of the emperors' preferences, and to not confuse those with preferences of local princes or nobles. This ensures also that the Islamic influence on the paintings can be observed.

Paintings were obtained from online resources such as ArtStor, from fully illustrated books available in the Texas A&M University Evans Library, and online access to such books as the *Babur-nama*. For ease of observation, all the images were transferred digitally. They were then organized and observed in chronological order, with special note given to patronage. For each painting, all horses that were not covered in armor or blocked were observed. The conformation was noted first, starting from the head, then color was noted. Specific notes to each painting were made. Once all paintings were observed, counts were made of colors, and run through statistically.

CHAPTER III

RESULTS

In the *Babur-Nama*, the first image observed (Figure 2) shows Bihlul-i-ayūb and Qulī Beg and their men skirmishing with Khurāsānīs. Three horses, seemingly on the losing side, are unarmored and thus are interesting to observe, as well as one bay horse that is armored:

- Conformation:
  - Head
    - Face: narrow, long
    - Ears: very long and pointed (black)
    - Eyes: disproportionately large, losing looking back at owners
    - Muzzle: small nostrils, incisors distinct
  - Neck- tapered throatlatch, very wide at base, manes nonexistent except in pinto, all hold similar stretched out neck positions
  - Shoulders/Chest: straight shoulders very round chest
  - Barrel: very wide
  - Hindquarters: Round and fleshy
  - Front legs: short forearms & black shows slight muscling on left fore, knob-like knees, rounded fetlocks, pasterns vary but average or long, hooves show no shoes, black shows frog
  - Back legs: clear definition of hocks, black shows high articulation of joint, view of fibular tarsal
  - Tail: very small
- Color:
  - Chestnut paint: tobiano, blaze, jagged pattern
  - Black: blaze, socks both fore only on back half of leg spot on knee, stockings on back half both hind legs, spot on cannon bone, white fading on neck, belly, between legs, possibly sweat?
  - Grey: very light
  - Bay in armor: muzzle and ears brown, legs black

Figure 2. Qulī Beg and Bihlul-i-ayūh fighting with Khurāsānīs (*Babur-Nama*)

Figure 3. Babur fighting the Uzbeks near Murghan Koh (*Babur-Nama*)

The next miniature of note (Figure 3) from the Baburnama shows Babur's forces on the right of the painting charging an Uzbek army on the left. Although many of the horses are armored, the artist gave enough variety in the painting to make some interesting observations:

- Conformation:
  - Head:
    - Ears: small
    - Eyes: very large, some seem to have red eyes
    - Muzzle: nostrils well articulated, unclear whether teeth have gap for bit
  - Neck: thin throatlatch, neck widens into chest
  - Shoulders/Chest: little definition between neck and chest, shoulders not clearly defined
  - Front legs: short forearms, long cannon bones, the leg furthest from the viewer in all but the bay on the bottom left show unnatural twisting to expose the underside of hoof, but frog is carelessly drawn
- Coloration:
  - Bay Paints (2):neither tobiano or overo, black points inconsistent- one has a black muzzle, the other a pink
  - Skewbald Paint (1): closest to tobiano, but markings are sporadic
  - Blacks (2): one solid, another with a blaze
  - Greys (6): all but 2 very light with darker manes, bottom most right appears dappled, Babur seated on light grey
  - Duns (3): only 1 has visible head- black mane and legs but points on head missing
  - Bays: 1 has a blaze, another has stockings, 1 lacks black on muzzle and legs are not solid black

The next image (Figure 4) was painted under the reign of Akbar, during which time the Mughal style had been firmly established. The first, dated at 1600, depicts Krishna, the Hindu god, killing Shrigala.
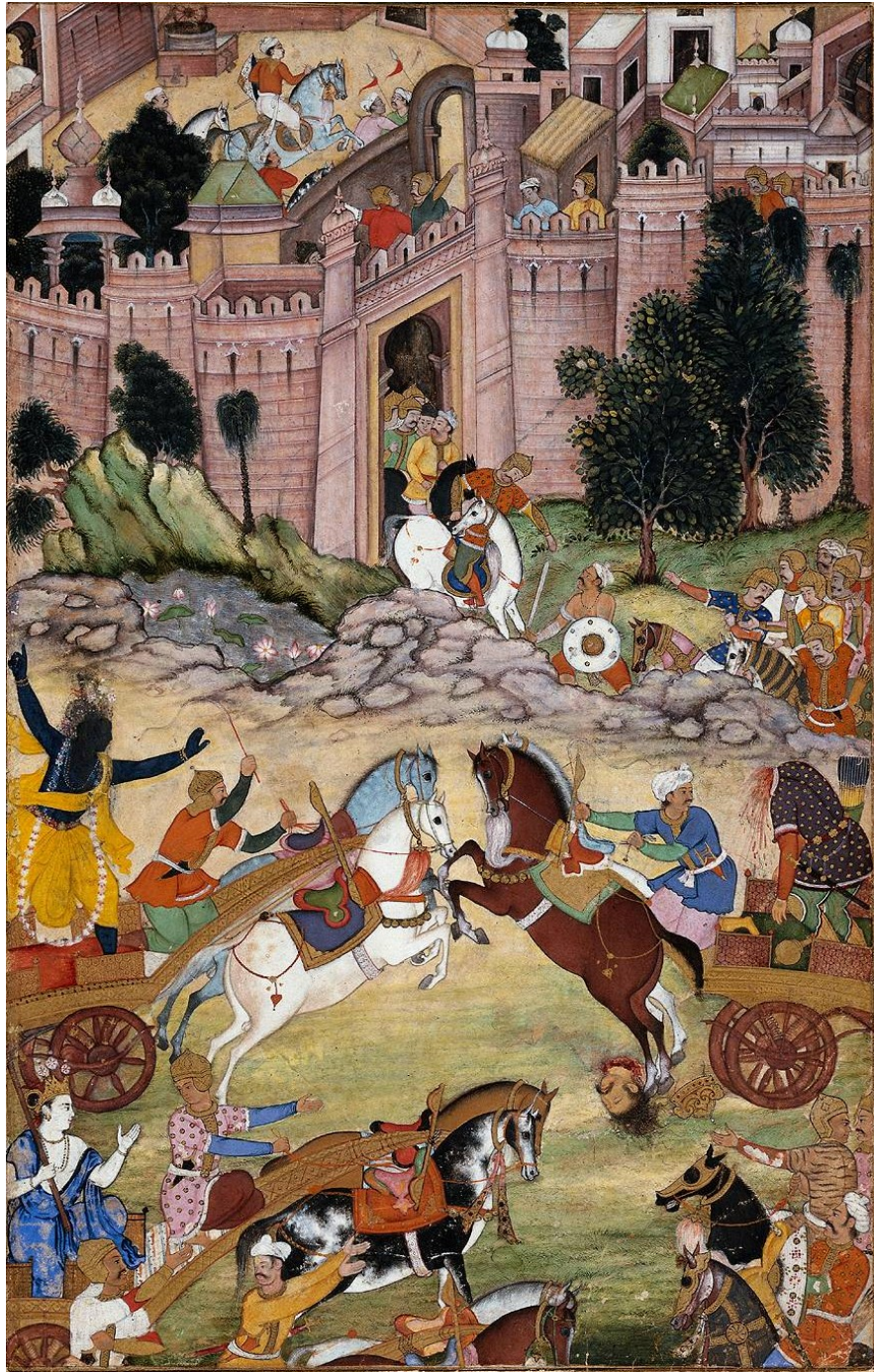
Figure 4. Krishna kills Shrigala (1600)

- Conformation:
  - Head:
    - Faces show tapering
    - Eyes: smaller but still expressive, almost cartoon-like
    - Muzzle: petite, but nostrils defined
  - Neck: thin throatlatch, necks upright and arched
  - Shoulders/Chest: note paint at bottom center: chest connects extremely high
  - Front legs: good forearm length, grey horse in back has circle on inside of leg– possibly a chestnut?, joints well defined– the fetlock even has slight shading, hooves well formed, light grey in center shows twisted left leg to show underside of hoof– oddly formed with white frog
  - Barrel- wide– little differentiation between rest of body and barrel
  - Hindquarters: fleshy, but form narrow, note that Krishna's horses' testicles are exposed but the enemy's horses have none
  - Hind legs: very narrow gaskins, but hock shows definition of tuber calcis, grays even show slight shading for tendons
  - Tail: short, thin, hair starts slightly low on tail bone
- Coloration:
  - Bays (4): black points correct (minus ears) on all except lighter bay, center bay interesting– stripe on face and socks on all 4 feet, bay at bottom also has stripe/blaze
  - Greys (7): very light, horses in back and foreground have darker manes, Krishna's right horse has light brown spotting, 2 silver dappled horses
  - Blacks (2); seem to be solid black
  - Paints (3): 2 piebalds, 1 bay(?) skewbald but lacks black points, all appear overo
- Note:
  - The carriage horses do not match- drastically different colors
  - Krishna's horses are distinctly masculine, Shrigala's are not

The next painting (Figure 5) was commissioned under the rule of Jahangir in 1606. The miniature shows much more detail than the previous ones, and is thus an interesting study:

Figure 5. Jahangir mounted (1606)

- Conformation:
  - Head
    - Face: slender but shows little tapering
    - Ears: normal size, straight
    - Eyes: large, but more life-like, shows some shading for the temple
    - Muzzle: distinct flaring of nostrils, careful shading. Teeth imperceptible
  - Neck: some tapering at throatlatch, but not severe, notice the positions of the necks
  - Shoulders/Chest: more defined in chestnut, who has an open shoulder angle, rest seem to be straight
  - Front legs: long forearm, knees have a small bit of shading, hoof shows good definition of frog, in typical exposed stance
  - Barrel: difficult to see but shows some curvature, center horse seems to have a roached back
  - Hindquarters: fleshy, but narrow, testicles visible in center horse
  - Hind legs: narrow, but note extra attention to the stifle, hock is subtly articulated, long cannon bones, but clear definition between pastern and hoof
  - Tail: longer than usual but still very thin
- Coloration:
  - Greys (2): center horse very light but dark points (minus ears), back horse possibly a dark dappled?
  - Chestnut: blaze that extends to muzzle, muzzle painted pink, note blue eyes, usually only seen when white reaches eye, note unpleasant expression
  - Black: has a star
  - Paints (2): difficult to label dark bay behind center horse– roan or paint, but note only mane black, other is likely overo
- Note:
  - Neck positions: Jahangir's mount holds the typically high position, but angle of bit and tightness of reins implies being pulled back, while other horses (especially the chestnut) are stretching out in more relaxed positions
  - Back horses difficult to analyze– show some variety but appear to be generic

The following set of paintings was commissioned under Shah Jahan. They have the greatest amount of variation between them stylistically, but in subject matter are conveniently similar. They all depict real events, for which the dates are available, and thus they can provide important information about the historical accuracy of paintings. The first (Figure 6) , dated to 1633 and painted by a "Kashmīrī Painter" depicts Shah

Jahan receiving the Persian Ambassador, which occurred in March two years prior to the

date of the painting. The horses are not entirely visible in the painting, but they show a

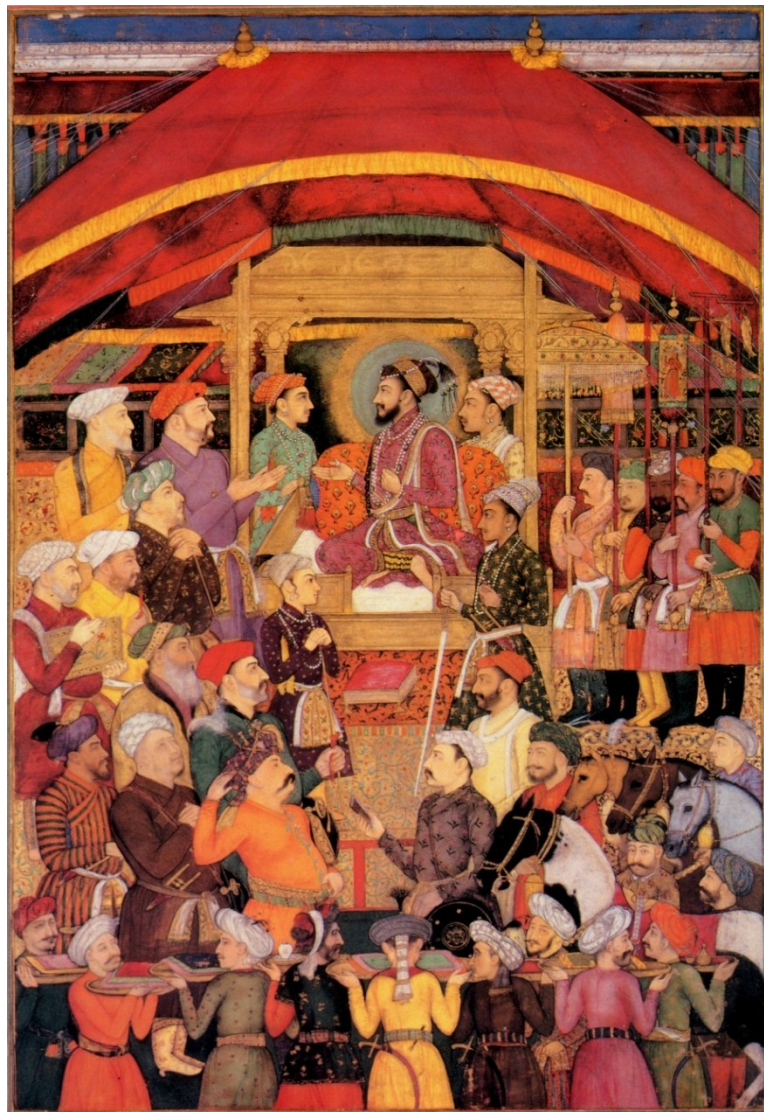high amount of detail, and are most likely gifts to the emperor:

Figure 6. Shah Jahan recieving the Persian Ambassador (c. 1633)

- Conformation:
  - Head:
    - Face: very well articulated, no tapering though
    - Ears: high amount of detail– each horse's ears in different positions
    - Eyes: fairly proportionate, great accuracy in shading for the brows and the temples
    - Muzzle: accurate nostrils, paint shows an overbite, dun shows distinct gap behind incisors
  - Neck: high set, paint shows shading next to the crest
  - Body: appear to be short-backed with narrow hindquarters
- Coloration:
  - Paint: piebald tobiano, unusually accurate– notice pink on muzzle from snip, markings match, are solid rather than jagged, and small spots of color near larger ones
  - Grey: almost steel colored but not dappled
  - Bay: dark points, but not well defined on muzzle, and absent on ears
  - Dun: very golden color, points correct minus ears

The next two paintings both represent the wedding procession of Shah Jahan's son, Prince Dārā Shukoh, which occurred in the 1632. The first painting (Figure 7) is attributed to a painter named Bishandās and dated 1633. It immediately stands out from all other paintings in its style:

- Conformation:
  - Head:
    - Face: oddly shaped- not like previous styles
    - Ears: longer than normal
    - Eyes: very large, slight shading to create brow
    - Muzzle: very petite but nostrils articulated, incisors and wolf teeth present
  - Neck: throat latch not tapered
  - Shoulders/Chest: neck flows into chest as one line, not distinct, little to no definition of shoulders
  - Front legs: shaped well- knees well formed, but little shadings, hooves "clunky"
  - Body: backs almost roached
  - Hindquarters: weak, flat croups, but slightly wider hind end
  - Hind legs: hock shows average definition, very clunky hooves
  - Tails: thin and short, possibly docked

- Coloration:
  - Greys (5): vary in darkness
  - Blue Roan (3?): steer grey with dark points– most likely attempt to show blue roan
  - Dun (3): golden colored, first horse to show ALL black points, including tips of ears, back 2 do not
  - Bay (3): black points minus ears, furthest back bay has brown legs, all have faded facial markings
  - Faded paint? (2) center horse– color indistinct– possibly a creamello or light paint, but markings don't match up
  - Chestnut: stockings and stripe on face
  - Paints (7)
    - Tobiano: light dun colored, stripe on face, rather jagged and spotty for most paints though
    - Overo (6): skewbalds seem to have more jagged patterns, and 2 have pink muzzles with their white faces, skewbalds seem to have more blotchy pattern but also have pink muzzles

The second painting (Figure 8), dated 1635, is attributed to the painter Murār. The horses are overall much more generic; their positions are almost all the same, and their expressions constant:

- Conformation:
  - Head:
    - Face: straight but nice tapering, least distinct jaw seen
    - Ears: small
    - Eyes: Small but very expressive
    - Muzzle: nostrils fairly distinct, incisors separate
  - Neck: very long, no tapering
  - Shoulders/Chest: essentially just extension of neck
  - Front legs: good thickness of forearm, knees have slight shading, fetlocks thin, narrow pasterns and long hooves, frog small, but well articulated
  - Body: thin, but slightly roached back
  - Hindquarters: slightly wider, testicles and sheath clearly visible
  - Hind legs: gaskins narrow, hock well defined, hooves long
  - Tails: short and thin
- Coloration:
  - Bays (3): black points everywhere but ears, no markings
  - Greys (4): two dappled greys, two light greys with black manes

- Buckskin (1): black points, muzzle faint, no markings on ears
- Black (1): lacks markings
- Palomino (1): no markings, but white mane and tail
- Paint (1): skewbald, base color difficult to tell, possibly overo pattern

Figure 7. Wedding procession of Prince Dārā Shukoh (Bishandis 1633)

Figure 8. Wedding procession of Prince Dara Shukoh (Murār, c. 1635)

The following miniature (Figure 9) depicts Shah Jahan's three sons riding. The painting

is dated 1636. This painting, like all the others, has its own style, but recalls the

conventions of the earlier paintings under Akbar and Jahangir.

- Conformation:
  - Head:
    - Face: slightly convex or Roman-nosed
    - Ears: small
    - Eyes: Small, black
    - Muzzle: nostrils fairly distinct, difficult to see incisors, parrot mouthed
  - Neck: long, tapering at throatlatch, appearance of heavy under neck muscling
  - Shoulders/Chest: difficult to see but little definition
  - Front legs: thin, long forearm, muscling in upper arm, chestnuts visible, long slender cannon bones, and very long pasterns, hooves on both right and left legs twisted to expose frog
  - Body: thick, back fairly roached
  - Hindquarters: well rounded,
  - Hind legs: stifle articulated, gaskin fairly narrow, hock large, with shading to show joint, cannon bones proportionately short, pasterns shorter, and hooves well formed
  - Tails: long and wispy
- Coloration:
  - Bay (1): black points minus ears, large star or white marking on face
  - Buckskin (1): black points minus ears, no markings
  - Paint (1): Skewbald overo, snip, small spots on neck, matches the paint from painting of Shah Jahan receiving gifts

Figure 9. Shah Jahan's sons (1636)

The next painting (Figure 10), attributed to Lālchand and a "Kashmīrī Painter" shows

Rānā Amarsingh of Mewar submitting and bringing gifts to Prince Khurram (Shah

Jahan) in February 1615. This painting is especially interesting because it seems to

depart from the typical Mughal style:

- Conformation
  - Head- unusually short, "compact" feel. Eyes appear human
  - Neck- thick and short
  - Body- other than bay, more proportional than past miniatures
  - Legs- very short gaskins and forelimbs, but also shorter than usual cannon bones
  - Tails- fairly long, but notice the dun– the yellow continues far back, with the black hair sprouting out, appears more like a donkey's tail
- Color
  - Bay- unusually dark, but points (except ears) correct
  - Darker Gray- fairly dark but notice contrast with pink tongue
  - Paint- markings realistic, with a pink nose
  - Dun- unusual gold color
  - Lighter gray- unusually dark mane and tail
  - Note that all the solid color horses lack any markings
  - Note the 3 dots on the horses' hooves

Color analysis

Including the 9 paintings discussed above, a total of 13 paintings was examined, and in

all, 118 horses were analyzed. The colors and markings were noted in each. The most

common color was grey, with 38 horses (32%), 10 of which were steel grey. Next were

bays with 27 horses (23%), then paints (both skewbald and piebald but piebald being

more predominant) at 24 animals (20%). The rest were as follows: 14 buckskins, 6

blacks, 2 chestnuts, 2 palominos, and 5 that were difficult to identify.

Figure 10. Submission of Rānā Amarsingh to Shah Jahan in 1615 (Lālchand and a "Kashmīrī painter" c. 1640)

CHAPTER IV

SUMMARY AND CONCLUSIONS

The miniatures

The miniatures from the *Babur-nama* tended to follow some general trends. As a whole the images showed little stylistic differences among themselves. The basic shapes of the horses varied little, with long, narrow heads and disproportionately large eyes. The eyes have a human quality to them, and the expressions that the horses make are almost comical. The heavy stylization seems rooted in conventions with each horse depicted with his legs thrown out to denote movement. An odd tendency in the paintings is to show the underside of the horses' front hooves; in a real horse, this would involve an unnatural bend in its leg. Their legs are knobby, and the animals show little shading. The animals seem to almost hover above the ground. The paintings show a lack of concern for accuracy, but instead follow a sort of formula to portray the story. The artists were likely not observing actual horses to create their miniatures, but following a formula to compose the painting. The preference for conventions over observation demonstrates the relatively low value of detailed painting under Babur in comparison to later rulers.

This poses a problem when considering the value of coat colors in these miniatures. It is important to note that in several miniatures from the *Babur-nama*, Babur is mounted on a black horse. This is likely purposeful, and may hint that Babur rode one horse exclusively for a period of time, and thus gives some significance in the choice of horse

colors. However, the scenes are for the most part battle scenes, meant to express a large battle with relatively few figures. Because of this, the artists did not necessarily need to paint figures that represented real soldiers or mounts, but simply generic figures to represent a mass of figures. Thus horses that were not mounted by main figures could have been represented arbitrarily, so their representation must be regarded cautiously.

The miniature from Akbar's reign (Figure 2) shows a small shift in style: the horses hold their necks upright, a convention that is followed from this point on, the joints are well articulated, no longer appearing as knobs, and more detail is put into coat colors. Little shading is present on the horses except for their joints. The legs receive a high amount of detail in comparison to the head, neck, and hindquarters. The shading is used to subtly define the tendons, and the parts of the hock and fetlocks. This perhaps points toward a subconscious tendency to value the legs of the horse.

Color also receives more attention in this painting. The bay is of interest with his white blaze and four socks; these markings would have been considered acceptable together according to Mughal superstitions. Interestingly, only one horse in the painting is a chestnut; as chestnut is one of the most common horse colorations, the presence of only one points toward a preference away from the coat color.

The later miniatures show significantly more detail than these first paintings, with an appearance of more emphasis on accuracy. Each painting has its own style, but great

amount of detail is consistently put in the legs. The faces also tend to show more detail in the later paintings, assuming a more realistic appearance, rather than the human, almost cartoonish, appearance of the earlier miniatures.

Conformation

In terms of conformation, there are several tendencies. In all the miniatures later than the *Babur-nama*, the horses hold their necks erect with an arch. The shoulders tend to be almost non-existent and there is little definition in the chest. These tendencies seem to match conformational traits of the horses that appear in the area. The Arabian horse was known for its arched neck, and texts from Rangin describe the desirability of this trait. The lack of a shoulder and chest could be a representation of a straight shoulder and narrow chest, common conformational characteristics among Akhal Tekes and the Indian breeds. Interestingly, the bodies of many of the horses were rather wide, almost fat, and the hind quarters were very fleshy. These do not correlate with the build of the breeds studied, and are anomalies. The long, slender legs though, seem to fit the Akhal Teke and Indian breeds, along with the sparse manes and tails. In Figure 9, the horses had almost Roman noses, a trait specifically noted in the Kathiawari and Marwari breeds, and the long faces in general match the descriptions of these breeds.

Thus, we can conclude that for the most part, the horses portrayed in the later Mughal miniatures matched the conformation of living animals that were traded at the time. The Mughals probably put much of their emphasis on the legs because these were considered

highly important in the mounts. Without strong, sturdy legs a horse cannot stay sound for work, thus at markets, well built legs were possibly one of the most important factors in purchasing a horse.

Conformation ties in strongly with a horse's way of going, or the quality of its gaits, so the representation of movement was another point of interest. As a whole, almost every horse held the exact same position: diagonal pairs of legs raised with full weight on the other two. The horses appear to have almost no momentum; it appears that they could just as easily set the raised legs back down on the ground. The lifting of diagonal pairs could imply that the horses are in the trot, a brisk, two-beat, gait. Since every horse holds this position with little variation, this seems to be more of a convention in Mughal art than a statement on the horses' gaits. The raised legs are the visual code to represent movement, and this would have been a universally known cue for the time just as a bird portrayed with open wings could be assumed to be flying.

The lifted forelegs were carefully observed to determine if they were stylistic choices or observation of real horses' movement. In theory, if a horse is viewed in profile, if it is moving in a straight line, the underside of the hoof should not be readily visible to an onlooker; however, if the horse has a conformational fault that causes a poor way of going, such as swinging out the leg (paddling) or swing in would potentially make the underside visible. If the artists only showed the underside of the hoof on one side of the horse (as in the side facing the viewer or the side not visible) then this could imply that

the Mughal horses tended to have one of these faults. Instead, the underside was shown regardless of which hoof was lifted, meaning that the artists most likely did this as a convention. It is plausible that at one point an artist observed a horse that paddled or winged-in, but considering that the convention shows in paintings as far back as Babur, which we have already established as involving little observation of real animals, this is unlikely.

Coloration

Coloration was possibly the most revealing aspect of the paintings. In terms of percentage, assuming that the color gene-pool has changed little since Mughal times, grey horses seemed highly over-represented. Bays were slightly underrepresented but their high appearance both matches with genetic tendencies and the claimed preferences of the Mughals. The buckskin should have appeared more frequently considering that it was listed highly in the hierarchy of preferences and the great number of classifications that the colors receives. A possible explanation is that the definition of buckskin for the Mughals was broad, and included horses that would be today considered bay. The painters also could have painted such that many horses that were dark duns appeared as light bays instead.

More interesting though, was the overall lack of chestnuts in the paintings. Being one of the most common colors, chestnuts should have appeared more frequently in the miniatures. The chestnut in the painting of Jahangir (Figure 5) seems to have an

unpleasant disposition—his ears are laid back, his mouth open and eyes wide. He does have wall-eyes, considered a good omen with a bald face, and perhaps because of this he is included in the painting. The general absence, though, points toward several potential explanations. The first is that chestnuts were considered low stock, thus when officers purchased herds of horses, the chestnuts were immediately culled, and thus never reached Mughal court to be observed by the painters. The second explanation is that the court did employ chestnuts, but the kings and princes never rode them because other colors were preferred. It is also possible that historical accuracy in terms of mounts was not important, thus artists painted colors that were ideal instead of colors actually present. This explanation, though, is unlikely due to an interesting connection between the two miniatures of the wedding scene.

Historical accuracy

The question of historical accuracy is difficult to answer without either textual evidence that mentions the horses or comparisons of paintings that depict the same scene. It is possible even then, for one artist to decide to portray the horses accurately and for another to arbitrarily assign colors, or for even two artists to arbitrarily assign the same colors. However, careful observation of the wedding processions of Dārā Shukoh seem to support the idea that historical accuracy was important to Mughal painters.

The two scenes depict four riders separate from the rest of the procession. It is likely that the portraits of these riders were painted by the main artists as they are the central

figures of the procession, and members of the royal family. The horses in the painting

provide the unique chance to compare accuracy. The wedding took place in 1632, and

the first painting (Figure 7), signed by the artist Bishandis, was completed a year after

the event. This painting portrays a bay, a buckskin, a steel grey, and a horse of unknown

color, possibly a rose gray or a dilution of a rarer color in the red family. The second

painting (Figure 8), signed by Murār, was painted in 1635. In this painting, two horses

are bay, one is a steel grey, the other a light grey with a dark mane. The challenge in

these paintings is determining whether the differences in colors are close enough to be

both representing the same horses ridden in the procession.

The riders provide the first clue. The youngest rider in both paintings is riding the darker

grey horse, while the seemingly oldest rider in both is mounted on a bay. This solidifies

the idea that at least two horses were accurately portrayed and leaves the two horses of

varying color. The second clue in deciphering the painting comes from the surrounding

horses. The first painting shows a great variety of horses; each animal has its own

expression and a separate coat color. Whether the main artist or a lesser artist painted the

horses, it is likely that the same person did every horse, including the four main horses

due to the high quality in all the mounts. The second painting, however, shows little

variation in the horses. The horses all hold similar postures and similar expressions and

no horse has any facial or leg markings; the horses are generic. In the second painting,

the horses are not individuals, but treated as objects that were present. Thus the colors

are generic. Therefore, the first painting's artist took an interest in accurately portraying

varieties in horse coats, while the second artist simply filled in the colors in a generic fashion.

Given an understanding of horse genetics, it is possible to then connect the differing horses. Buckskin is, genetically, simply a dilution of bay, but a great number of variations in shade exist in reality. Mughal horse terminology also had a great number of classifications of *zarda* (translated to dun, but correctly termed buckskin) coats, which could easily confuse someone not actively involved in the horse trade. The grey horse also had a great number of classifications, making its identification just as potentially confusing.

The final clue then to connect the horses in question is the dates of the paintings. The first painting only dates a year after the wedding, meaning that an observer's memory was more "fresh". Whether the artist himself was present at the wedding or had an observer who both vividly remembered the event and understood horse terminology, the first painting more likely attempts to capture the finite details of the event. The second painting was completed several years after the event, meaning that the artist may have only had a vague recollection of the event or was utilizing an observer with faulty information.

The second artist clearly understood the buckskin coloration as one of the background horses exhibits this color, but if he painted the bay horse based off poor information, the

choice in painting a bay is more plausible. The background horses, like those in the miniatures from the *Babur-nama*, could simply be fillers, meant to represent a large number of horses in a procession, thus accuracy was not essential. On the other hand, the bay horse could have been intended to be accurate, but the artist's informer may have been unfamiliar with proper terminology, or the horse was a darker buckskin and confused as a bay. The grey may have also caused similar difficulties, and since the artist painted horses generically, the decision was likely made to not specially portray these unique animals, but simplify their colors into an easy visual vocabulary.

Thus these two paintings demonstrate that at least for main figures, historical accuracy was valued. This means that assertions can be made at least about the mount choices for the imperial family and important figures, so the assumption that greys, bays and buckskins were preferred holds more validity.

The next question that arises is whether for unusual coat patterns such as pintos living animals were observed (whether these animals were simply horses present in the patron's stable or the actual animals that were ridden in the event portrayed) or artists tended to simply create a visual language to represent color as they did to represent movement. This question become more pertinent when observing the piebald horses present in three paintings completed under Shah Jahan.

In previous and even later paintings, most colored horses seemed to not match the typical patterns seen in reality. The markings were jagged such as might be seen on an overo pattern, but the markings did not follow overo patterning. The miniature of Shah Jahan receiving an ambassador and accompanying gifts has the first accurate representation of a pinto horse. The horse displays typical markings of an overo: black on the face, with pink skin on the muzzle to represent a snip, color on the underside of neck and the chest, and color on the flanks that does not cross the back. This horse is separate from the others, possibly making him the grand "prize" of the group, but his high amount of detail positively points to his general importance in the painting.

Interestingly, a piebald of almost the exact same markings appears in the equestrian portrait of Shah Jahan's sons (Figure 9). The striking resemblance of these two horses is most likely not coincidental, but several explanations can equally explain it. The first explanation is that the artists are portraying the same horse because it was both present in the reception of gifts and ridden by Shah Jahan's son. Upon receiving the horse, Shah Jahan could have kept the horse in his stables, and considering the relative peace during his rule, and the proximity of years between the two paintings, it is likely that the horse would not have been used in battle and likely killed, and that it could have easily lived to the completion of the second painting. Shah Jahan could have given the horse to his son, and because of its high value, was readily portrayed in the son's portrait.

The second explanation is that the horse was not present or ridden by Shah Jahan's son, but became a symbol associated with the imperial family. The horse could have been of such high value and been made so socially visible as a symbol of the family's wealth, that the horse simply became a symbol of the family. It is also possible that the horse became sentimental to the family, thus they often requested the appearance of the horse whether it was actually present or not.

The third explanation, which is supported by the final painting observed (Figure 10) is that a horse with the observed markings existed, but painters copied the markings from one prior source. Whether that source is the gift giving ceremony is difficult to assert, but because artists were known to emulate previous works, it is highly possible that these three paintings are simply portraying a horse that was painted. This would follow the idea of a visual code or language, that markings of such specifications simply signified to the observer that a paint horse was present, just as lifting two legs represented a horse in movement. Without further observation of more miniatures, or an English translation of the texts accompanying the miniatures, a definitive answer is difficult, but a combination of the first and last explanation seem the most likely.

Mughal horsemanship

Another note on color is what it reveals about Mughal horsemanship. The first most notable point is the "error" in portrayal of bays and buckskins. While some artists were more accurate on painting the points of these colors than others, only one painting

showed the black on the tip of the ears. Considering the high amount of detail shown in other parts of the paintings, it is unlikely that this was due to a lack of attention on the part of every artist, but pointing at some part of Mughal horsemanship. In the *Faras-Nama*, instructions were given on how to crop the ears and to sew them so that they appeared more pricked. This would be similar to the present day practice of cropping the ears of certain breeds of dogs, and would easily eliminate the black on the horses' ears. While it was known that the practice was performed, the consistencies in the paintings point toward the widespread use of the technique.

Another interesting inconsistency is the lack of markings on the horses. Only 30% of Indian horses are completely solid, meaning having no white markings, yet the percentage of solid horses in Mughal paintings is significantly higher. While a certain amount of this can be accounted by a lack of interest in putting details in the horse and making them generic, this does not explain the number of solid horses in paintings that do put high detail in the horses. Certain markings, such as small stars and white markings on the left leg were considered ill omens. Thus it is likely that horses at least with undesirable leg markings were not ridden by the emperors. As for facial markings, Rangin described a method for rubbing out white marks through friction, so it is possible that this technique was performed to rid animals of unlucky marks, and the lack of these undesirable marking in miniatures points to this.

Conclusions

Observation of equine coloration in miniatures can provide small details about Mughal preferences and horsemanship. While certain details must be taken cautiously due to the presence of lower quality miniatures, recurrences can help make assertions toward Mughal equestrian culture with fairly strong confidence.

In terms of the creation of Mughal miniatures, horses also provide small details. Since it is known that multiple artists worked on a painting, and the head artist painted the important portraits, it can be assumed that the horses were potentially painted by multiple artists. As a whole, the quality of all the horses in a painting tended to be consistent. The only painting in which quality clearly differed was that of Jahangir; the horses in the foreground showed a great amount of detail, while the background horses seemed to blend together. Other than this exception, it appears that one artist tended to work on all the horses in the painting. In the case of Shah Jahan receiving gifts, this could have been one of the master artists due to the high amount of detail, but this is difficult to determine.

As a whole, the role of the horse in Mughal miniature does not seem significant until careful observations are made. The majority of art historians are not familiar with horses on a level that allows them to notice these differences, but with a strong background in equine conformation and coloration, these differences allow for the collection of bits of information to add to the overall understanding of Mughal culture. The paintings help

confirm details that were only referenced in writings and reveal other details previously

unconfirmed. The goal of this study was not simply to uncover these pieces of

information, but to encourage art historians to carefully note every aspect of art, and to

confer with experts in other fields to help understand the information. This would be

beneficial for both fields, as the art is a representation of the other field's past. Through

cooperation, disciplines that have otherwise been treated as separate can mutually

benefit each other.

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