Crisis before the Fall: Some Speculations on the Decline of the Ottomans, Safavids and Mughals

Rohan D'souza


Stable URL:
http://links.jstor.org/sici?sici=0970-0293%28200209%2F10%293A9%2F10%3AC3%3ACBTFSS%3E2.0.CO%3B2-U

Social Scientist is currently published by Social Scientist.
ROHAN D’SOUZA*

Crisis Before the Fall: Some Speculations on the Decline of the Ottomans, Safavids and Mughals

There is no supremacy and grip on the world without means and resources; without lands and retainers sovereignty and command are impossible.


Turkic military groups founded, established and consolidated three powerful empires between the 14th and 16th centuries. Through the course of their conquests, the Ottomans (1300-1923), Safavids (1501-1736) and the Mughals (1526-1857) held a combined territorial sway, with periods of contraction and expansion, that extended from the Balkans in the west to the Bay of Bengal in the east. Geographically, these empires drew an arc between Europe and China and included parts of north Africa and peninsular India. In their classical periods, they operated with similar forms of property, administrative mechanisms and institutions of rule. The most significant unit of the ruling bloc comprised a military aristocracy that rested largely upon agrarian surpluses, tribute and war plunder.

From the mid-half of the seventeenth century, however, these empires began to be overwhelmed by a staggered crisis that ultimately resulted in their demise as political entities. The Mughals were in pronounced decline from 1707 and reduced to a mere nominal status at the time of their total eclipse in 1858. The extinction of the Safavid state as a political reality followed from a prolonged period of internal attrition and administrative collapse after the dynamic rule of Shah

*Ciriacy-Wantrup Fellow, Energy and Resources Group, University of California, Berkeley.
Abbas (1588-1629). In 1736, Nadir Shah ended even the formal genuflection to the Safavid house by installing himself as the first ruler of the Afshar dynasty. Ottoman decline was evident throughout the seventeenth century as it rapidly lost pre-eminence vis-a-vis the other European powers on the continent. The emaciation and collapse of the Ottoman political order was, however, paced differently from that of the Mughals or the Safavids and the empty shell of empire was finally jettisoned only in 1923.

SETTING UP THE DISCUSSION

Although there are, undoubtedly, several aspects of the Ottoman, Safavid and Mughal empires that are specific and unique, there are a number of similarities as well that make a comparative approach compelling. Second, it is of some significance that they were all in various degrees of an existential crisis in the last quarter of the seventeenth century. Third, a comparative approach will also enable one to explore the salience of both the unique and general features that characterized these empires as political organizations and forms of state.

Besides engaging with the conundrum of decline, this essay will also emphasize the need for analyzing these three empires as a single bloc by suggesting that similar tensions and stresses undermined their apparatuses of rule and viability as political formations. This is, however, a schematic and somewhat speculative exercise and will therefore be marked by several rash and sweeping generalizations. The idea nevertheless is to attempt to outline an agenda for a more rigorous comparative treatment of the field and thereby provoke a dialogue between specialists in Ottoman, Safavid and Mughal studies (henceforth OSM).

For a long time, comparative accounts of the OSM crises have been debated essentially along the cultural axis. Hodgson, in his grand three volume survey of the Islamic world, suggested that trends towards a relative "social and culture stalemate" hobbled the OSM's ability to confront the dynamic modernization of the European powers.1 Athar Ali, lists "cultural failure" as the root cause underlying the inability of the Islamic political formations to modernize or revolutionize their armies and productive capacities.2 Although cultural dynamism is undoubtedly important for the grasp of new ideas and for developing or absorbing higher levels of technological and productive capacities, arguing that there was a sudden arrest and subsequent stagnation of the entire Muslim cosmological universe
is too sweeping a claim. More so, given that these states had long
dowed tremendous ability for adopting and inventing new
technologies for warfare, assembling early modern forms of
governance (especially rational bureaucracies) and possessed trading
networks that displayed a great deal of social flexibility and porosity.
To advance cultural “stalemate” or “failure” as a primary cause for
decline would, therefore, require one to explain not only how Islamic
society suddenly lost its dynamism and resilience, but why it did so
after a period of incredible efflorescence. Metin Kunt, on the other
hand, advances a multicausal explanation. According to him, the
Mughal and Safavid states imploded from “internal stress” brought
on by their failure to negotiate administrative centralization, which
radically altered the delicate balance between the Padishah (Emperor)
and the nobility. The need for centralization, in Kunt’s assessment,
stemmed from the Padishah’s desire to increase his direct revenue
at the cost of the nobility. Kunt, however, does not explain why
administrative centralization, which was crucial to the formation of
the empire as a political entity in the first place, began to fail after a
certain period. In other words, why did centralization begin to
undermine the empire when the most successful period of rule and
stability was made possible during eras of strong central authority
and control such as, for example, the reign of Akbar (1536-1605)
for the Mughals and Shah Abbas (1588-1629) for the Safavids. With
regard to the Ottomans, Kunt asserts that the empire was simply
overwhelmed by its European counterparts, given the latter’s
 technological superiority and commercial success. Kunt here
surrenders analysis for description and merely asserts a fait accompli
of European supremacy over the Ottomans.

Christopher Bayly has advanced the most sophisticated and
compelling comparative treatment of the OSM crises. He has argued
convincingly for a radical revision of the entire causal schema of
arguments that turn on themes of cultural stagnation, military decline
or elite debauchery. Instead, Bayly suggests that the OSM were
shattered by an aggregation of political tremors, which originated
chiefly from within the folds of these empires. He argues that the
relative peace and stability provided by the imperial authorities over
centuries led to a gradual deepening of commercial networks, the
extension of urbanization and the congealing of landed classes in the
OSM territories. These interests then hardened into a new economic
and social bloc that subsequently began to batter the main frame of
empire and ultimately wasted and muscled out the previous
Bayly is keen to emphasize that a combination of "accommodating indigenous capitalism" and fiscal emaciation caused the fatal unsettling of these gargantuan centralized bureaucracies. The OSM decline, therefore, acquired the rhythm of a "structural adaptation" in which new commercial and landed interests moved vertically upwards and collided with the overarching frame of empire. Consequently, when the dust clouds cleared after imperial collapse, the former landscape was not heaped with inert social and economic debris but instead overlaid with vibrant regional and provincial formations. Though appealing and seductive, Bayly’s argumentation leaves fundamentally unanswered the question he sets out himself:

Why then did powerful interests in the Ottoman, Mughal and Safavid empires decide progressively to withdraw their support during the early eighteenth century?  

Bayly does not credibly explain the nature of the fault line that ran between "indigenous capital" and the OSM state. That is, he gives no indication that there was a structural contradiction or contradiction of any sort between the centralized bureaucracies and the networks of trade and commerce that these empires evidently encouraged and nurtured in great part. If the OSM state forms were oriented towards siphoning surpluses, why would social and economic complexity necessarily or fundamentally be an obstruction rather than an incentive for the state to develop a different scale of taxing strategies? Bayly’s inability to engage decisively with the above leads him to arrive at a highly improbable scenario, in which his explanation suggests that indigenous capitalism in all the three empires matured and simultaneously became ripe for political change in the cusp period between the late seventeenth and early eighteenth centuries.

In contrast, I will argue that Bayly’s failure to rigorously outline the nature of the OSM state and its conditions for reproduction make his analysis particularly vulnerable to the above weaknesses. A comparative assessment of decline will therefore broadly engage at the following three levels:

a) The conditions that enabled the OSM to reproduce rule and sustain themselves as political and administrative entities.

b) The context and contradictions that undermined the basic institutions of empire.

c) The trajectories of decline.
CAVALRY, FIREARMS AND WAR

The OSM had to establish themselves as ruling houses by effecting a transition from nomadic warrior bands to full-fledged states. In many ways, these empires were a peculiar fusion of the Central Asian nomadic military organization, first lent decisive coherence by Ghengiz Khan in the 13th century, and the political and administrative elaboration of the early Islamic state forms of the Ummayads, Abbasids and Saljuqs (though the Ottomans drew a great deal from the Byzantium empire as well).

At the heart of the momentum that enabled conquest, pacification and consolidation of territories as empires lay the then incredible fighting capacity of the Turcoman cavalry. The invention and diffusion of the stirrup in the preceding centuries had enabled the horse and rider to be effectively welded into a lethal fighting unit capable of unprecedented violence. Mounted shock combat, in fact, remained unsurpassed until firepower could be delivered effectively. The harnessing of animal power for the purposes of war placed the Central Asian steppes, a zone pre-eminently suited to the breeding of sturdy and swift horses, at a new historical juncture. Roving nomadic bands in these regions that could harness horsemanship for the purposes of war were now capable of plundering resources and economic wealth from settled populations and larger political formations. In their classical form, the OSM armies relied on heavy cavalry as their core fighting arm along with an uneven supplement of siege canon and light artillery. Some sections of the infantry were also equipped with rudimentary fire arms (arquebuses and muskets). The classical stage of empire, for our purposes, refers to the period when these formations peaked as political entities and corresponds roughly with the reigns of Sultan Mehmed II (1451-1481) and Sultan Süleyman I, the Magnificent (1521-1566) for the Ottomans, Akbar (1536-1605) for the Mughals and Shah Abbas (1588-1629) for the Safavids.

Although the deployment of firepower was undoubtedly significant in several battle scenarios, to term the OSM "gun powder empires" chiefly characterized by their use of artillery and firepower has been convincingly demonstrated to be a misplaced emphasis. For one, skilled mounted archers in this period could discharge a larger number of arrows over longer distances than infantry men firing their muskets. Mounted archers, moreover, could effect great tactical mobility through swift deft maneuvers and could deliver a decisive charge with sword and lance. Besides, the speed with which cavalry could be assembled and directed for battle was critical for
routine pacification campaigns. The musket or harquebus-wielding infantry, on the other hand, was considerably bogged down with cumbersome weapons and time-consuming techniques for delivering fire and reloading. As for siege cannon and light artillery, Rhoads Murphy has incisively pointed out that their deployment was circumscribed and made contingent on a number of variables. Gunpowder was inherently unstable and perishable, and in the absence of rigorous standards in production, its performance in battle conditions often rendered it highly unreliable. The logistics for transporting, storing and preserving gunpowder also presented a fair number of challenges, especially since fording rivers was an inevitable part of war operations. Similarly, the use of heavy artillery pieces or siege guns was often constrained by problems of carriage and preservation. Their effectiveness in delivering fire was, moreover, severely limited; even in optimal conditions many of the large guns had a range extending only between 200 or 300 meters. Besides, rapid relocation of these pieces in battle situations was not possible and most could be fired only once in half an hour. In many instances the siege guns had also to be virtually positioned in the immediate vicinity of their targets to inflict significant damage. In Safavid Persia, for example, despite the establishment of a small corps of artillerymen as early as 1516, their deployment was minimal, a choice that was necessitated by the absence of a good river network in the region for the portage of field guns. Lastly, it is quite probable that the dominance of a “Central Asian nomadic warrior” ethos forced an emphasis on swift and impulsive cavalry attacks rather than methodical planning and coordinated drills, which the effective delivery of firepower required.

Although the widespread use and adoption of firepower by the OSM armies was undoubtedly hindered by technical and logistical problems, its limited acquisition and deployment in battle situations were a result of several other factors. As will be argued below, artillery and musket-wielding infantry remained supplementary instead of being developed as modern firepower-based standing armies essentially because of the peculiar manner in which the cavalry was tied to the property regime and the political process. Cavalry warfare was, in fact, vital to the reproduction of rule in the OSM states.

PROPERTY AND THE POLITICAL PROCESS

The edifice of empire clearly rested on its military prowess. Not surprisingly, therefore, institutions for governance were discernibly
welded and structured for the purposes of war and coercive action. In effect, for the classical period, society, economy and the state were linked and balanced by the need to sustain the effectiveness of the core of its fighting capability - the cavalry. The bulk of the revenues for maintaining the apparatuses of state and sustaining imperial coherence was drawn chiefly from three sources - agrarian surpluses, war plunder and tribute. The mechanism for extraction in the former was the fiscal system, whereas for the latter two it was through regular military campaigns.

The fiscal system threaded together the three basic social blocs of the empire. At the base lay the vast mass of the cultivating peasantry, who generated the agrarian surpluses. The apex of the pyramid comprised the Sultan (Ottoman)/Padishah (Mughals and Safavids) and his imperial administration. The distance between the emperor and the cultivating peasantry was straddled by a dense layer of intermediaries of various gradations and rank, who were tied to the center either as revenue collectors or through service obligations. In this schema, the intermediaries were alienated rights to the agrarian surplus for certain administrative or military obligations, but with their demands on the peasantry regulated and controlled by the imperial authority. In all the three empires, nonetheless, a considerable portion of the cultivated land was directly controlled by the imperial administration, listed as the Khassa (Safavids), Khallissa (Mughal) and Miri or Khassee (Ottoman). Though there also was a substantial urban sector with fairly developed trading networks, merchant guilds and craft production, these units, in the classical period, nonetheless remained relatively marginal to the overall economy and fiscal system.

The military was mainly concentrated as a land-based army and in the case of the Ottomans especially, the Sultan never participated in naval battles. The core fighting arm of the military was the cavalry, which was supported and maintained by a specific property and taxing regime. In fact, the mode of revenue extraction and the manner in which the cavalry was enmeshed in the fiscal system were strikingly similar in all the three empires.

The Ottomans evolved the timar system early on and it became a defining feature of their presence in core areas of the empire. The typical timar consisted of the assignment of the revenues of a fiscal or territorial unit to a sipahi, a cavalryman. The sipahi resided in the village and collected the tax, which was paid in kind and was based on a share of the gross produce of that season. The sipahi, in turn, was expected to maintain his horse and weapons, such as the bow,
sword, shield, mace and lance from the assignment. There was also a higher assignment called the zeamat in which the official had to maintain a number of cavalrymen. During periods of war, the sipahis of a certain administrative unit were all rallied under the executive head of the region the sanjak beyi. For the Safavids, the equivalent institution was called the tuyul and the cavalryman termed the qizilbash. The Mughals had a slight variation in the manner they effected the link between the fiscal system and the military. Termed the mansabdari system, it indicated a military rank involving a specific pay that was tied to a commensurate obligation to supply troops to the imperial center. The mansabdar was either paid in cash straight from the imperial treasury or assigned a Jagir - fiscal rights over a specified tract of land. As part of the military service, the mansabdar usually maintained both Zat (infantry) and Sawar (cavalry contingents).

In all the three empires, the state manifested as a vertical and horizontal system of negotiated alliances in which the provincial administration served as the hinge connecting the locality to the emperor's office. Amy Singer's recent study of the Ottoman administration in Jerusalem in the early half of the sixteenth century insightfully reveals how provincial administrative routines were based on continual negotiation with local practice and the incorporation of local elites. Administrative strategies intended for similar ends were also deployed by the Mughals and the Safavids and involved giving military support to select chiefs against competing claims and tactically granting assignments to absorb petty chieftains and local men of substance into the administrative folds of the imperial order. A section of the social spectrum was thereby turned into allies and clients of the state. Military capability, needless to add, remained fundamental to these maneuvers for sustaining social alliances, neutralizing the potential for rebellion and enforcing the co-operation of rural society in general.

The decentralization of authority and power across the three empires was, however, qualified in one significant way. The state always attempted to exercise absolute control over the land and its produce. Private proprietary rights were discouraged from taking root, with the grants being made only on a temporary basis. Assignments in all cases, moreover, could be granted only by the central authority or an executive arm of the administration invested with the authority to alienate fiscal rights. The land, in effect, represented innumerable types of claims, rights and obligations rather than an inalienable and
absolute form of property held in exclusive ownership. The Emperor’s office was thus the principle regulator of the economy and sought to extract levels of performance by alienating portions of his claim on the surplus.\textsuperscript{16}

The policy of contingent alienations was, in effect, a calibrated parcelling of sovereignty that, in aggregation, comprised the pyramid of rule. This decentralized posture facilitated the administration’s ability to appropriate surpluses through intermediaries without increasing its own responsibilities for administrative personnel, military manpower and material provisions, while simultaneously magnifying its strength through social alliances. In sum, the \textit{political process} that facilitated the reproduction of rule comprised a continual calculation that turned on tapping nodes of power in society, arbitrating between claims over the surplus, negotiating social alliances and regulating the intensity of surplus extraction.

\textbf{CONTRACTION AND LIMITS OF EMPIRE}

The drive to secure agrarian surpluses, tribute and war plunder through a decentralized military and fiscal system which in turn, was regulated by a significant imperial administration, generated several tensions that were specific to such a structure of rule. First, the entire edifice was constantly racked by internally generated centripedal (attempts at centralization) and centrifugal (intermediary’s attempts to decentralize) forces. Although the central administration was compelled to operate through intermediaries, it had simultaneously to attempt to limit their power and strength, especially that of the cavalry elite; the intermediaries, on the other hand, repeatedly sought to enhance their resource base and power in the political order. The OSM, in fact, peaked as political formations when the balance between the crown lands and assigned territories was kept in a judicious equilibrium. During Akbar’s reign, for example, notably in the last decade of his rule, revenues from the \textit{khalisa} territories stood between 24 and 33 percent of the total assessed revenues. Shah Abbas of the Safavids, similarly, sought to curtail the claim of the qizilbash on the revenue. Massive tracts of land during his reign were converted from \textit{mamalik} (assignments to the qizilbash) to \textit{Khassa} (crown lands).

The torque upon which the tension between the central authority and the intermediaries turned was most acutely expressed in the sphere of surplus appropriation in the agrarian sector. Imperial intervention was essentially defensive and aimed primarily at preventing irreversible agrarian collapse. Three mechanisms were largely deployed by the
central administration; a) restricting the intermediaries from making extortionate demands b) agricultural loans in the event of calamities and c) revenue remissions (granting a total revenue waiver) for seasonal crop failure. Though agricultural output could be and often was increased by encouraging the expansion of the cultivated frontier, the imperial authorities found it difficult to monitor and tax these tracts. Consequently, the primary means to the acquisition of higher revenues or surpluses was not dependent on the increase of productivity through investments etc., but relied chiefly on intensifying the appropriation of the peasant’s total output and the curtailment of the intermediaries share. Thus, a peculiar dynamic operated, with the emperor relying on intermediaries for extracting the surplus but, nevertheless, poised against them for control over rural society. The large mass of peasants, on the other hand, were involved in a constant battle to limit the intermediary’s extortionate demands on them. Rural society therefore was continually churned by the friction that was structured into the relationships between the emperor, his intermediaries and rural society in general. Thus, incessant strife and recurring conflict were integral to the agrarian system and the political landscape.17

Two tactics were widely resorted to by the imperial center to contain, regulate and limit the strength of the military and administrative elites. First, the imperial house sought to control the relative size of the nobility itself, along with a prudent trimming of the latter’s war potential comprising horses, retainers and income. Second, by the intensification of intra-elite competition through the carefully calibrated policy of regular bestowal, rotation, promotion or even dismissal of the nobility from their assignments, i.e., Jagirs, Zeamats, or Tuyuls. The frequency with which assignments were transferred or reassigned to new persons often indicated the relative strength of the imperial authority vis-à-vis the assignee. This state-orchestrated shuffle of assignments was primarily directed at preventing the assignees from establishing permanent patron-client linkages in their fiscal units or developing horizontal ties among themselves. At the heart of these tactics was the desire of the imperial house to keep the nobility dependent on the central authority for all their privileges.

Clearly, the edifice of empire was cloven by deep structural contradictions that could be contained only through a political process that regularly massaged an equilibrium between the military aristocracy and the imperial center. An equilibrium that, in fact, was
manufactured and renewed by the peculiar rhythms and waves of medieval warfare. Frequent and successful expansionary military campaigns, therefore, became the indispensable lubricant for greasing the political process through which the imperial authority was then able integrate new fiscal units, bestow assignments, phase out or whittle the holdings of the non performing sections of the military aristocracy and, most importantly, repeatedly shuffle the ranks and privileges of the aristocracy. In sum, the imperial center had to keep the political process activated for it to regulate the empire's social base and economic surplus. Thus, the empire's viability and vitality as a political formation was critically dependent on recurring military campaigns and its ability to keep its frontier elastic for expansion or incursion.

In effect, the moment cavalry warfare, the principle fighting strategy of the OSM, was no longer able to deliver military success or expand the frontiers, these empires were plunged into a "staggered crisis," that characterized their period of slide and inevitable eclipse. The OSM's respective trajectories of decline, however, were broken by a variety of political initiatives and responses, which account for the differences in the velocity and rate of collapse.

TRAJECTORIES OF DECLINE

Ottomans

One uses the term "decline" cautiously. Recent literature has indicated that the political collapse of the imperial center was not necessarily coterminus with general and overwhelming economic dislocation and social chaos.18 That these state systems were not deeply anchored in society nor always effectively able to penetrate the cyst of the locality suggests that the rapid erosion of the central bureaucracy and the overarching frame of empire did not result in an immediate and catastrophic impact on all sections of the OSM polity. Nevertheless, many segments of the economy and a large swathe of the cavalry nobility, who were attached somewhat fatally to the old order, were swept away in the implosion. The term decline here, consequently, refers to the dismantling and demise of the apparatuses of state and its institutions of rule that had previously sustained the empire in its classical form.

From the seventeenth century onward, European states began to vigorously adopt new military technologies and employ radically different strategies for warfare. The emphasis of the ruling houses in Spain, Netherlands, Italy, France and Austria, in this period, was
chiefly concentrated on pioneering tactics for delivering firepower effectively through massed infantry formations. The scales were now made to tilt in favor of musket-wielding infantry, disciplined standing armies, mobile artillery, new types of fortification techniques, naval improvements and, most importantly, the bulk provisioning of armies through private contractors. In this new context of warfare, levied or liege armies with cavalry as the main offensive arm were drastically rendered ineffective and the Ottomans became one of the first to discover that the days for cavalry warfare was numbered. By 1570-71, the Ottoman empire had made their last truly great expansion with the conquest of Cyprus. In the following “long war” against the Hapsburgs (1593 – 1606), however, the Ottomans found themselves arraigned on several occasions against firearm-equipped infantry formations, who were trained and drilled to deliver synchronized fire. In Wallachia, the Ottoman light cavalry was systematically slaughtered by Prince Mihal’s infantry. The Ottoman rout was again repeated when the sipahi-led cavalry was worsted by German infantry in another battle. A seismic shift in warfare technology and battle strategy had clearly occurred. These changes were succinctly expressed to the sultan by one of the Ottoman commanders, Mehmed Pasha, who reported that:

...in the field or during siege we are in a distressed position, because the greater part of the enemy forces are infantry armed with muskets, while the majority of our forces are horsemen...

After the long war, the western frontier became less porous to Ottoman incursions, battles consumed far more resources and victories became costly. From the seventeenth century onward Ottoman expansionary thrusts increasingly began to be evened out with losses in territory. The changed military milieu, however, did not escape the Sultan and the various managers of the Ottoman state and consequently they initiated a series of moves to reconfigure the technical composition of the military. In Suleyman’s reign (1526-66) there were eighty thousand sipahis. By 1609 this number had been drastically cut down to forty-five thousand and in 1630 barely eight thousand timar holding sipahis remained. On the other hand, from a mere sixteen thousand Janissaries in Suleyman’s reign, their numbers exploded to some thirty-nine thousand in 1609 and a little over fifty-three thousand in 1660.

Overhauling the military, however, involved not only a complete transformation of the social and political landscape that had, hitherto
over the centuries, been indexed to the needs of the cavalry, but required altering the very rhythm of warfare itself. In the classical era of cavalry warfare, the Ottoman military essentially followed a set pattern involving mobilization of the liege army, marching them to the front, a period of engagement and then a return to base at the end of the campaigning season. The military campaigning season was, in fact, confined to the months between April and October, which was the growing season for crops and forage and therefore made the movement of the cavalry possible. Modern warfare not only made campaigning a twelve-month affair but required far more complex and accurate financial and logistical support.

Although the Ottomans were able to force a considerable number of changes in their military organization and stayed fairly ahead, if not on a par, with many of the European armies until about 1700, the turn against cavalry warfare caused powerful shock waves to radiate down the spine of the ruling institutions of empire. As outlined earlier, one of the principle mechanisms of the central administration for manipulating the military aristocracy and regulating the economy was through military campaigns. The failures on the western front consequently sent the customary pulse of Ottoman rule into an exaggerated wobble. The state’s vitally essential function of allocating and distributing timars was the first to break down; it was further aggravated by heightened claims on it by the Janissaries and non military social groups who were now trying to edge aside the battle redundant cavalry elite. On the other hand, the Ottomans desperately needed to intensify their revenue collections to embrace the new technological context for warfare. Timars, therefore, were increasingly allocated to tax-farmers with an excessive emphasis on realizing the revenue demand in cash. These complications were further accentuated because the obsolete sipahi cavalry had to be dispossessed and eliminated, in many cases by further strengthening the palace cavalry (Kapikulu) and the Jannissaries, i.e., the standing army and its firearm-wielding infantry component. This period of violent transition culminated finally in the murder of Sultan Osman II in 1622 by the Janissaries.

The reforms of Murad IV (1623-1640) put a brake on the downward spiral and staved off a total crash. To strengthen the imperial center, Murad radically altered the system of taxation and sought to rewrite some of the political equations. An overwhelming number of timars were seized from the sipahis and this income was redirected instead to the palace cavalry, central officials, palace
personnel and, most significantly, to the Janissarries, who increasingly began to be embedded in the social and fiscal system of the empire. Direct taxation was made more widespread, and the practice of revenue farming (Iltizam) through a new social class of merchants and financial speculators was also instituted. The main thrust of these reforms appears to have been directed towards what Charles Tilly explains as the urgency to “separate the rhythm of expenditure from income.” Tilly, in his magisterial survey of European state systems, argues that the process of establishing and equipping modern armies was inevitably a capital intensive affair. Governments, especially after the sixteenth century, had to, therefore, rapidly monetise their economies, acquire a steady financial income and aggressively solicit sources of credit. In effect, because states had to indulge in expenditures ahead of income for war-making with expensive firearm-wielding standing armies, they had to spend in cash surges. Consequently, in the twilight period of transition to a modern army, European states increasingly adopted a “system of collecting taxes in money, paying for coercive means with the money thus collected, and using some of the coercive means to further the collection of taxes.”

Murad’s reforms, in fact, appear to have closely mirrored several of the above mentioned trends in Europe for taxation and revenue raising. The timarot institutions and the massive administrative apparatuses of the classical Ottoman state, however, could not be instantaneously vaporized by the firearm revolution. Throughout the late seventeenth and eighteenth centuries, despite reforms and often violent lurches towards reconfiguring some of the institutions of rule, the Ottoman polity remained trapped in a political and economic quagmire; a quagmire that can be described as stranded centralization, in which the Ottoman state’s efforts to modernize its army and institutions that supplemented the new context in warfare were repeatedly either stalled or distorted by the political and social debris of its classical period. The Ottomans, in fact, never regained their pre-eminence as a world power and continued to slide. They became, so to speak, the “sick man” of Europe until their final eclipse in 1923. Nevertheless, unlike the Mughals and the Safavids, the Ottomans were able to survive as a ruling house, often only in name, by repeatedly taking measures (however inadequate and limited) to modernize some of their institutions of state. The period of the Tanzimat or “ordering”, for example, acquired considerable momentum in the early nineteenth century, in which several of the
central administrative and military institutions were substantially restructured.²⁹ It was in this period that Sultan Mahmud II (1808-1839) was able, after a bloody encounter, to successfully eliminate the Janissaries in 1826 and install an army trained on modern lines called the Nizam-i-Cedid.³⁰

Safavids

From the early days of the Safavid empire, a very fragile and delicate balance was struck between the imperial center and the cavalry aristocracy - the qizilbash. This was a balance that the Safavids sustained, for a while at least, by an overtly energetic and aggressive wielding of the political process, i.e., a regular circulation of tuyuls (assignments), a firm control over the number and rank of the cavalry elite and a measured apportionment of the economic surplus among the various tribal aristocracies. This carefully crafted equation between the imperial center and the qizilbash, however, was irretrievably breached during the period of Shah Abbas’s reign (1587-1629); ironically, at the very height of Safavid rule.³¹

Shah Abbas was virtually at war against his own qizilbash or tribal military organization. Besides employing the familiar strategy of rotating their tuyuls frequently, he, on occasion, transferred groups of qizilbash of a particular tribe to an entirely new district held in assignment by another tribe. He was also not averse to placing whole tribal legions under the charge of a member not belonging to that tribe. Clearly, Shah Abbas sought to aggressively enervate his qizilbash cavalry by intensifying intertribal conflict.³² The centerpiece of the strategy, however, was the creation and consolidation of a standing army that would purportedly outflank the traditional combination of provincial militias (Mulaziman) and Turcoman tribal cavalry. The new army comprised three basic divisions:

a) the Tufangchi (musketeers), drawn in the main from the Persian peasantry, who were initially organized as infantry but were later also mounted.

b) the Qullar (the royal slave corps) comprised the palace cavalry though armed with muskets instead of the lance that typified the qizilbash.

c) the Tupchiyan (artillery corps), who numbered about 12,000.

These new units were termed Ghulam and were expected to be exclusively loyal to the imperial house. Abbas, furthermore, halved the number of qizilbash cavalry serving under him; from a previous high of 60-80 thousand they were reduced to a fighting force of barely
30,000 tribal horsemen. Finally, the ethnic composition of the army was drastically altered with the dominant Turcoman and Tajik elements replaced by Circassian, Georgian and Armenian converts.\textsuperscript{33} In total, the Ghulam army stood at an impressive 40,000 men. Not unexpectedly, the wide ranging and sweeping reforms in the military sphere forced the central administration to advance an equal and complementary shift in the economic realm; notably the taxation strategy. Here, Shah Abbas adopted a policy of “land conversion” transferring Mamalik or provincial territories previously administered by qizilbash chiefs to \textit{Khassa} or crown lands which became the cornerstone to his revenue-raising efforts. The strategic appeal for land conversion lay in the fact that surpluses from the Khassa territories could be directly appropriated by the imperial house and therefore provided the Shah a source of revenue with which the huge expenses for maintaining a standing army could be met.

Masashi Haneda has, however, insightfully observed that the Ghulam regiments were not merely a counterweight to the qizilbash but, more significantly, comprised an attempt to create a modern army. That is, beyond the political calculation of neutralizing the Turcoman cavalry, Shah Abbas had plans to adopt firepower, possibly to confront the Ottoman threat on its western flanks.\textsuperscript{34} Not surprisingly, therefore, Abbas’s initiatives were largely concentrated on breaking the connection between land and service. However, despite establishing a standing army of musket-wielding cavalry and a separate corps of artillerymen, the Safavid empire, well up to its demise in 1736, was unable to make a complete and effective transition to a modern firepower-based army. The artillery corps, for example, was disbanded during the reign of Shah Abbas.\textsuperscript{35} Undoubtedly, several ideological, geographical and tactical factors, before and after the reforms of Shah Abbas, continued to hinder the rapid adoption of firepower technologies such as:

a) the unavailability of basic components such as charcoal, saltpeter etc for the manufacture of cannon and artillery.

b) the Safavid’s army’s persistent preference for rapid attacks, ambushes and “scorched earth” policies.

c) lack of a proper river network, which made the transport of heavy artillery difficult and cumbersome.\textsuperscript{36}

The above constraints, though considerable as obstacles, were nevertheless not necessarily insurmountable barriers to the development of a firearm-based standing army. The Safavid’s stymied attempts to transit to modern warfare were, in fact, more
fundamentally linked to the broader context of the crisis of empire. Postreform Shah Abbass’ Persia appears to have followed a trajectory similar to that of Ottoman decline, albeit along a different path.

In 1639, by signing the Treaty in Zehab near kasr-i-shirin with the Ottomans, the Safavids secured for themselves what Lawrence Lockhart terms the “long years of peace.” The northern and eastern borders were simultaneously also becalmed, although occasional tribal refractoriness persisted. This brought to a decisive closure in Safavid Persia the era of large and regular military campaigns that had been a prominent and integral feature of Abbas’s reign. The end of war, however, heralded the demise of empire. The period following the peace of Zehab and the consequent inelasticity of the Safavid frontier resulted in the irremediable warping of the fragile equation between the imperial center and the qizilbash. Without frequent military campaigns, as indicated in the previous section, the political process was not operable and soon began to sputter. Much like the “decay” of the Ottoman timariot, the Safavid tuyul system was plunged into a crisis with the imperial center unable to effectively manipulate the military aristocracy.

The Safavids were, in fact, soon hurled into a variant of the stranded centralization dilemma, i.e., the entire polity was twisted by the imperial administration’s attempts to hack away at the social and political roots of the classical period with a blunt instrument - the Ghulam regiments. The Safavid rulers, throughout the seventeenth century, therefore, sought to intensify the policy of land conversion (weakening the qizilbash) and raise cash by resorting to tax farming and the sale of offices (to strengthen the ghulam forces). The lack of an effective grip over the political process and the inability to sustain a firearm based standing army, however, proved to be fatal to the Safavids and an Afghan led “tribal resurgence” in the early decades of the eighteenth century overwhelmed them. Nadir Shah’s dismissal of the Safavid house in 1736 was essentially an attempt to restore the OSM’s social and political order. This possibly explains Nadir’s (1729-1747) extreme militarism, which included an extensive campaign in northern India in 1739 that was ostensibly aimed at plunder but was perhaps more significantly an attempt to resuscitate the political process through the oxygen of medieval warfare. Nadir’s revivalism, on the other hand, was not a complete relapse into the technical and tactical deportment of classical cavalry warfare. The new Afghan resurgence, in fact, involved a radical innovation in the harnessing of firepower without fundamentally disturbing the
emphasis on cavalry. Firepower was adapted to the cavalry by increasing the number of mounted musketeers and even introducing the use of light camel artillery. Instead of the preponderance of archers for skirmishing and forward thrusts, the mounted musketeers now conducted lightening wheeled attacks on the enemies’ flanks to discharge concentrated volleys of firepower. Ahmad Shah Durrani (1747-73), often considered the founder of modern Afghanistan, employed to lethal effect the new combination of firepower, traditional skills of cavalry speed, long-range mobility and rapid maneuverability in battle. The weakness vis-à-vis the European armies, nevertheless, continued to be the familiar absence of effective artillery units and a drilled and standing infantry. Thus, in the long run, for these empires, military innovation or the absorption of new firepower technologies hit up against a logical limit that acted as a powerful barrier to their transition into modern infantry-based warfare. A limit that was perhaps most acutely exemplified in 1790, when Aqa Mohammed, the first Qajar ruler, captured the throne in Iran with an essentially levied army of 60-70 thousand men, who were paid for six or seven months in a year.

The principal arms were bows and arrows, clubs, lances, swords and daggers. The cavalry wore coats of mail and some used small shields. Fire-arms consisted of long muskets, mostly matchlocks. Artillery was seldom employed.

Mughals

The Mughal empire took a different route in decline than the Ottomans and the Safavids, although it was overwhelmed by a similar crisis. This was brought about chiefly by a combination of its frontiers being rendered inelastic and the blunting of its long held advantage in heavy cavalry-based warfare. Following the conquest of Bijapur, Golconda and the formal defeat of the Marathas in the south in 1689, Aurangzeb (1658-1707) had exhausted the limits for Mughal territorial expansion. The northeast frontier was closed, following the failure of earlier campaigns in the region against the Ahoms in the Brahmaputra Valley. The Mughal army’s attempts at conquest and pacification in the region were substantially undermined by its inability to contend with the rugged hilly landscape, seasonal floods and the extreme humidity. The topography and terrain were, in fact, highly unsuitable for the deployment of cavalry and field artillery. Opening up a front in the northwest, on the other hand, was not a viable option given the fierce fighting capability of the Afghan warrior...
tribes in the region. With the conquests in the south, therefore, the logical limits of empire had become pronounced. More significantly, as well, Aurangzeb’s final expansionary thrust into the *Deccan* peninsula, unlike previous campaigns, resulted in unusually high financial and military losses. The high price of the Mughal conquests, in fact, was a signal that they had been, for the first time ever, tactically outmaneuvered and worsted by a new logic in the conduct of war.

Mughal warfare in the subcontinent had for centuries relied on the use of artillery for siege situations, heavy cavalry (Khurasani and Iraqi horses) for attack, and light cavalry and fire power for skirmishing. Large swathes of territory, moreover, were controlled through the strategic fortification of nodal points. This overall emphasis on delivering war in massed formations, however, tended to make the Mughal army relatively inflexible, because its effectiveness was limited to open ground in set-piece battle scenarios. Instead of engaging the Mughal military on their terms in open battle, therefore, the Marathas opted for protracted guerilla warfare through small bands of swift, light cavalry. Expertly skilled Maratha horsemen conducted innumerable punitive raids, harassed supply lines and carried out frequent ambushes. These horsemen had also perfected extraordinary maneuvers for carrying out sudden raids and then organizing swift, coordinated retreats through rapid disengagement and flight. Though such tactics were insufficient for direct assaults on Mughal fortresses, the Marathas were nevertheless still able to force surrenders by cutting off the camp’s supplies to food and water. The Mughals thus suffered from sustained harassment and were, over time, worn down by the sum total of the petty wounds repeatedly delivered to the main body of their fighting forces. Moreover, the imperial administration’s costs and expenditures for securing and maintaining its territories in the Deccan region from recurring subversion and attacks spiraled.

The first ripple that emanated from the quagmire in the Deccan, in fact, unsettled the most pivotal institution of empire - the mansabdari system. Often referred to as the “Jagirdari Crisis” in Mughal historiography, the view has long been that the Mughal state was caught in a cleft between the nobility’s increasing demands for jagirs and land exhaustion. John F. Richards, however, brilliantly argued for a revision of the jagirdari thesis by revealing instead that revenue assignments were available in the Deccan, but errors on the part of Aurangzeb in their judicious distribution caused disquiet rather
than pacification.\textsuperscript{46} That is, in Richards’ opinion, the crises resulted fundamentally from an improper implementation of the standard imperial procedures for the assimilation of the new territories and thereby led to the fall of the empire in the subsequent decades. Though, undoubtedly, Aurangzeb’s personal inadequacies may have come into play in the Deccan campaign, Richards’ evidence can, in fact, be more meaningfully read with a different emphasis. The blunting of the heavy cavalry’s striking capability amid a relative squeeze in the Mughal expansionary frontier, not unexpectedly, bore down on the functioning of the political process. Certain structural constraints, hence, hemmed in Aurangzeb’s room for maneuver. In failing to decisively route the Marathas with the entire weight of the Mughal war apparatus, the emperor, was faced with the rapid loss of what M.N. Pearson terms “the aura of success”.\textsuperscript{47} That is, the rejuvenation of the system of alliances and the renewal of the nobility’s confidence in the emperor’s person had not been achieved in the Deccan campaign. Aurangzeb’s actions, in fact, in hindsight, appear to have embraced precisely these imperatives for rule. He, as Richards has indicated, granted the choicest lands in the new territories as jagirs to the top end of the provincial elite and those fighting the Marathas and then made further expansionary thrusts. Both these decisions were hastily directed efforts to shore up his most substantial alliances and enhance his capacity for control over the nobility through the tested and time-worn measure of attempting a decisive and successful military campaign. The Deccan imbroglio, however, was a clear signal that the political process that worked the institutions of rule was severely undermined, principally as a result of the new tactical context of guerilla warfare that the Marathas had introduced. The mansabdari crisis, in effect, much like the decay that had set in the timar and tuyul systems, indicated that the imperial office no longer had the coercive capacity to sustain alliances, mediate between groups or regulate the economic surplus.

Mughal decline, however, unlike the Safavids and the Ottomans, trundled along a different gradient. Imperial impotence was its chief characteristic and not the dilemma of stranded centralization. The absence within the Mughal center of an institution comparable to the firearm-wielding jannissaries or the ghulam meant that it lacked a basic core around which centralization could be effected and a recovery staged against the military aristocracy. That is, the Mughal center lacked any institution with which it could advance an alternate paradigm for rule. Therefore it was compelled to relax its hold over
former dominions and concede ground to more vibrant regional formations. In other words, the great Mughal canopy that extended over the subcontinent gradually acquired a number of large discolorations, throughout the eighteenth century, in the form of patches that marked the emergence of a slew of "successor states" viz., Awadh, Bengal, Hyderabad, the Marathas and the Sikhs. These successor states worked the same type of networks to not only stem or intercept the flow of resources to the imperial center but also reverse them permanently by annexations, usurpations and expropriations. Much of the dissolution of the Mughal state was effected not by the regional elites and military aristocracy carrying out acts of outright defiance or opposition, but by wresting from the imperial authorities tax-farming (ijara) rights, jagirs on long term tenures and by securing appointments to administrative or governing offices. These regional formations, in fact, continued their formal genuflection to the Mughal authority, precisely because their differences with the imperial center were one of degree and not of kind. Some distinctness from the imperial center nevertheless existed and was reflected most acutely in the manner that the successor states were able to develop more efficient circuits for taxation and collection, and weave tighter linkages with local magnates and powerful social groups. Only towards the latter half of the eighteenth century were regional formations such as the Sikhs and Tippu Sultan of Mysore provoked to radically overhaul their social and political systems in order to harness firepower through modernized infantry and standing armies.

CONCLUSION

Briefly, I have sought to argue that the Ottoman, Safavid and Mughal empires were gripped by a systemic and structural crisis once their main instrument of coercion i.e., cavalry warfare, was tactically and technically rendered obsolete in battle situations. The above claim, however, deviates substantially from Tilly's axiom that state structures are a by-product of the acquisition of the means of war, because I emphasize, instead, that the capacity for coercion is integrally tied to and wrapped up in political processes that reproduce the conditions of rule. That is, a state form regulates a specific set of linkages and interdependencies between its military, property regime and ruling institutions that are furthermore situated in particular types of political dynamics and relationships.

The OSM empires were assembled by and relied on a political process that was activated through regular drives of conquest and
military campaigns, which then enabled the imperial authorities to regulate their social and economic foundations. The obsolescence of cavalry warfare, therefore, in the context of the OSM’s peculiar political rhythms for reproducing itself, lay at the root of their staggered crises. Nevertheless, it bears reiteration that it was not firearms *per se* but their deployment by standing armies, who were drilled to deliver firepower in a synchronized manner that ultimately caused the decisive defeat of cavalry warfare. The use of muskets and arquebuse was, in fact, fairly preponderant in the Islamic world in the fifteenth and sixteenth centuries, especially in the Ottoman hinterland. As early as the reign of Suleyman I (1520-66), auxiliary troops drawn from the lowest stratum of rural society (*levands*) termed the *sekb*an armed with *tufengs* (muskets) were increasingly recruited for military engagements. These firearm wielding *sekb*an, however, were never regularized as a permanent corps of infantrymen and instead were always demobilized after war campaigns. During the period of the *celali* “disorders” (1595-1610), it was the former *sekb*an troops that, in fact, led and gave teeth to most of the revolts. In all probability, given the landless rural origins of the *sekb*an, could not incorporate them on terms similar to the janissaries (the sultans personal slaves) nor draw them into the imperial system of alliances with timars like the sipahis. In effect, the firearm skills of the *sekb*an were systematically marginalized and throughout the seventeenth century they were repeatedly in rebellion against the Ottoman state or involved in intense bloody struggles against the janissaries and the sipahis.

Variations in the rate and velocity of decline among the imperial houses, on the other hand, can be traced to the differences in the political responses that each member of the OSM employed while grappling with its respective existential crises. The Ottomans were able to cushion their fall by shielding themselves with the janissaries, for a while at least, from both the rapidly modernizing European states and from their own sipahi and cavalry elites. The Safavid, on the other hand, tried but failed to counter the qizilbash through the ghulam regiments. The Mughals sank into oblivion after being gradually hollowed out by several resilient regional and provincial elites. In sum, to return to Bayly’s question posed at the outset, the “powerful interests” withdrew their support for the OSM by the eighteenth century because the imperial authorities no longer had the coercive means to ensure the former’s cooperation nor sustain alliances with them. In other words, “indigenous capitalists” or rather the
various commercial and landed groups did not muscle out or worst the apparatuses and institutions of the OSM, but instead moved into spaces vacated by the empire. The instance of the ayan (provincial notables) and the esraf (influential residents of the cities) in Ottoman Turkey is one such example of lateral movement. During the great upheavals (1595-1610) when the sipahis were being jettisoned from their timars, both the ayan and the esraf moved into these spaces and began to rework them as lessees and tax collectors. In time, the ayan and the esraf acquired considerable wealth and standing and became a powerful group of financial managers and tax collectors often in close cooperation with government officials, leased vast areas of land from the imperial miri as tax farmers. On the other hand, during the tanzimat reforms the central bureaucracy, despite signing the Sened-I ittifak (document of agreement) with the provincial and rural magnates and promising to safeguard their privileges (conditional upon the latter following Ottoman tax laws), the imperial authorities, nevertheless confiscated a large number of landholdings and redistributed them amongst the peasantry. Clearly, as late as the nineteenth century, a section of Bayly’s “indigenous capitalists” and magnates were not powerful enough to dictate to the Ottoman state, let alone cause its downfall. Establishing the particular dynamic in which certain types of social and economic groups filled out spaces abandoned by the state, in fact, assumes great analytical importance for assessing the implications of the entry of European commercial and mercantile capital in the region. Although this issue will not detain us in this essay, because it is an immense subject on its own, it is sufficient to assert that its significance lies precisely in helping us question why Bayly’s indigenous capitalists in the OSM empires could not, like capitalists in some of the European states, create or direct state support that would protect them from foreign mercantile interests.

Finally, it is perhaps necessary to add that the pace of decline and ultimate disintegration of the OSM were undoubtedly aggravated by aspects of demographic pressure, climatic factors and especially the price revolution of the seventeenth century. But to ascribe primary causation to these factors would be once again to confuse the causes that undermine state capacity and those that bring about implosion of the state form itself. The dying of cavalry warfare, in effect, led to the death of empire.
* Draft versions of this paper gained from comments and suggestions by audiences at Yale and Berkeley. Also much thanks to Kay Mansfield, Jessica Stites, Arash Khazeni, Amol Kahlon, Vasudha Dalmia, Amita Satyal, Scott Nelson, Crispin Bates and Shellie Corman. I am also very grateful to Richard Wiebe, who edited out many errors.

NOTES

4 This theme is, perhaps, most comprehensively discussed in C.A.Bayly, Imperial Meridian: The British Empire and the World 1780-1830, Longman, London, 1989, pp.16-73.
5 C.A.Bayly, Imperial Meridian, p.35.
6 Andrea Hintze uses this term to describe Mughal decline see idem, The Mughal Empire and its Decline: An Interpretation of the Sources of Social Power, Ashgate, Brookfield USA, 1997, pp.273-77
7 C.A.Bayly, Imperial Meridian, p.24.
12 The sipahi’s disdain for firearms is strikingly visible in a report to one of the Ottoman commanders Rustam Pasha. The report was intended to convey news of the massacre of 2,500 sipahis by 500 mounted Christians armed with muskets.
   “Did you not hear that we were overcome by the force of fire-arms? It was fire that routed us, not the enemy’s valour. Far different, by heaven, would have been the result of the fight, had they met us like brave men. They called fire to their aid; by the violence of fire we were conquered; we are not ashamed.”

14 The Timar system was not in force in the provinces of Egypt, Baghdad, Abyssinia Basra and Lahsa. These territories were supervised by Governors, who remitted fixed annual tributes and were known as *Salyarre* provinces. There were other autonomous provinces as well termed *Hukumet*.

15 She argues that “customary practice” helped fix the details of the administration though a certain common relationship was nevertheless imposed between peasants and officials through the overarching frame of empire. By the end of the seventeenth century, however, several dramatic changes began to be effected in which the tax farmers (*iltizams*) began to edge out the interests of the Timar holders. See Amy Singer, *Palestinian Peasants and Ottoman officials: Rural administration around 16th century Jerusalem*, Cambridge University Press, Great Britain, 1994.


17 This view resonates with Wink’s discussion of an organizing principle for state formation in Muslim societies through the notion of *fitna or schism* ¾ simultaneously a form of rebellion and political bargaining ¾ that is directed at the steady incorporation of social groups. A constant state of war and military campaigns was, in effect, vital to the whole process of negotiations for alliance building and stabilization. See A.Wink, *Land and Sovereignty in India: Agrarian Society and Politics under the Eighteenth Century Maratha Svaraya*, Cambridge University Press, Cambridge, 1986.


19 Between 1630 and 1635, perhaps, 400 military enterprises were active, raising and maintaining fully equipped regiments, brigades and even whole armies. See Geoffrey Parker, *The Military Revolution: Military Innovation and the Rise of the West 1500-1800*, Cambridge University Press, Cambridge, 1988


21 See the “The Decline of the Ottoman Empire” in Halil Inalcik, *The Ottoman Empire: The Classical Age 1300-1600*, Prager Publishers, New York, 1963, pp.41-52. (translated by C. Imber and N.Izkowitz)

22 Halil Inalcik, *The Ottoman Empire: The Classical Age*, p.48 and Rhoads Murphey, *Ottoman Warfare 1500-1700*, p.16

23 See Rhoads Murphey, *Ottoman Warfare 1500-1700*, pp.13-34.

24 Charles Tilly, *Coercion, Capital, and European States (AD 990-1992)*,

25 This is a claim made by Rhoads Murphey, see his *Ottoman Warfare 1500-1700*.


27 Charles Tilly, *Coercion, Capital, and European States*, pp.84-87.

28 Charles Tilly, *Coercion, Capital, and European States*, p.84.


31 For a general survey of the changes wrought by Shah Abbas I have consulted Hafez F. Farmayan, “The Beginnings of Modernization: The Policies and Reforms of Shah Abbas I (1587-1629),” Monograph of the Middle East Center, University of Utah, 1969.


35 Artillery forces remained amazingly weak throughout the Safavid period. In the battle of Gulnabad in 1721, for example, the Tuchibashi supervised by a French master-gunner, failed to worst the Afghan charge. See Matthee, Rudi, “Unwalled Cities and Restless Nomads: Firearms and Artillery in Safavid Iran,” *Pembroke Papers* 4, 1996, p.359.

36 Matthee, Rudi, “Unwalled Cities and Restless Nomads”, *passim*


42 The Mughals finally gave up all pretence to having a presence in the northeast

43 Some idea of the emphasis the Mughals placed on cavalry is visible in the following figures; in 1647, the army consisted of a total of 200,000 stipendiary cavalrymen: 8000 mounted Mansabdars, 185,000 maintained by the Princes, the greater nobles and other mansabdars and 7000 imperial cavalry. In addition almost another 300,000 cavalry were employed by zamindars of various rank. In contrast there were just 40,000 artillery and another 40,000 infantry in Tapan Raychaudhuri and Irfan Habib (ed.), *The Cambridge Economic History of India*, vol. I, Cambridge, UK, 1982, p. 179 quoted in Andrea Hintz, *The Mughal Empire and its Decline*, p.58.


45 This interpretation has been advanced and endorsed largely by Satish Chandra, *Parties and Politics at the Mughal Court*, 1707-1740, Aligarh, 1957; and M.Athar Ali, *The Mughal Nobility Under Aurangzeb*, Aligarh, 1966.

46 According to Richards, Auranzeb failed to distribute the jagirs in a manner that would assimilate the regional and local elites into the folds of the empire and second he pursued further expansion before striking proper administrative and political roots in the region. See John F. Richards "The Imperial Crises in the Deccan", *Journal of Asian Studies*, 35, 2, 1976, pp. 237-56 and P. Hardy's comments in the same volume.

47 See M.N. Pearson, "Shivaji and the Decline of the Mughal Empire", *Journal of Asian Studies*, 35, 2, 1976, pp.221-35. Also see P.Hardy's comments on the same.


49 Halil Inalcik, "The Socio-Political Effects of the Diffusion of Firearms in the Middle East", pp.23-44.


52 Ermine Kiray, "Foreign Debt and Structural Change in the 'Sick Man of Europe'”, pp.87-89.

OTHER WORKS CONSULTED

You have printed the following article:

Crisis before the Fall: Some Speculations on the Decline of the Ottomans, Safavids and Mughals
Rohan D'souza
Stable URL: [http://links.jstor.org/sici?sici=0970-0293%28200209%2F10%293A9%2F10%3C3%3ACBTSS%3E2.0.CO%3B2-U](http://links.jstor.org/sici?sici=0970-0293%28200209%2F10%293A9%2F10%3C3%3ACBTSS%3E2.0.CO%3B2-U)

This article references the following linked citations. If you are trying to access articles from an off-campus location, you may be required to first logon via your library web site to access JSTOR. Please visit your library's website or contact a librarian to learn about options for remote access to JSTOR.

Notes

38 The Long Fall of the Safavid Dynasty: Moving beyond the Standard Views
John Foran
Stable URL: [http://links.jstor.org/sici?sici=0020-7438%28199205%2924%3C281%3ATLFOTS%3E2.0.CO%3B2-3](http://links.jstor.org/sici?sici=0020-7438%28199205%2924%3C281%3ATLFOTS%3E2.0.CO%3B2-3)

46 The Imperial Crisis in the Deccan
J. F. Richards
Stable URL: [http://links.jstor.org/sici?sici=0021-9118%28197602%2935%3C3237%3ATICITD%3E2.0.CO%3B2-8](http://links.jstor.org/sici?sici=0021-9118%28197602%2935%3C3237%3ATICITD%3E2.0.CO%3B2-8)

47 Shivaji and the Decline of the Mughal Empire
M. N. Pearson
Stable URL: [http://links.jstor.org/sici?sici=0021-9118%28197602%2935%3C3221%3ASATDOT%3E2.0.CO%3B2-Y](http://links.jstor.org/sici?sici=0021-9118%28197602%2935%3C3221%3ASATDOT%3E2.0.CO%3B2-Y)

NOTE: The reference numbering from the original has been maintained in this citation list.