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Military History of the Subcontinent: From Ghaznavids to Mughals

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ABSTRACT

This article surveys the evolution of warfare in the Indian subcontinent from the Ghaznavid incursions (11th century) through the consolidation of the Mughal Empire (16th–17th centuries). It traces how changing geostrategies, manpower systems, and technologies reshaped campaigns and state formation: from mounted shock tactics and elephant corps to gunpowder artillery, matchlock infantry, and bureaucratized revenue–military institutions. We analyze logistics across the Hindu Kush–Punjab corridor, the iqtāʿ and later mansabdār systems of recruitment and pay, the rise of composite forces, and the interplay of fortification, siegecraft, and field maneuver. Case studies (Somnath, Tarain, Panipat, Rajput–Mughal wars, Eastern frontiers) illustrate how environment and technology conditioned victory. The paper argues that military adaptation—especially firearms, artillery trains, and standardized pay—interlocked with imperial administration to produce durable rule under the Mughals while also generating frontier pluralities that shaped post-Mughal polities.

Keywords:

Ghaznavids, Ghurids, Delhi Sultanate, Mughals, gunpowder, cavalry, mansabdari, siegecraft

INTRODUCTION

From the late 10th century, steppe-Iranian war cultures pressed through the Hindu Kush into the Punjab, catalyzing a centuries-long reconfiguration of South Asian warfare. The Ghaznavids fused Turkish mounted archery with Persianate statecraft to mount deep, logistically complex raids. The Ghurids converted episodic raiding into conquest, supplying the institutional seedbed for the Delhi Sultanate, which elaborated *iqṭā'* assignments, slave-soldier cadres, and mixed cavalry–elephant forces to control diverse ecologies from the Doab to the Deccan. By the 16th century, the Mughals—armed with mobile field artillery, matchlocks, and a centralized revenue apparatus—reorganized manpower via the *mansabdār–jāgīr* system and operationalized composite tactics integrating cavalry caracole, infantry shot, and heavy guns. Across these regimes, the meaning of military power shifted from shock to fire, from patrimonial retinues to enumerated service, and from episodic plunder to routinized revenue extraction. The following outlines synthesize these transformations.

Strategic Landscapes & Logistics (c. 1000–1707)

The military history of the subcontinent was deeply shaped by its geography, seasonal rhythms, and infrastructural constraints. The **Hindu Kush mountain passes**, particularly the Khyber and Gomal, served as crucial invasion funnels that linked Central Asia with the Punjab plains. Control over these gates determined the success of successive incursions—from the Ghaznavids to the Mughals—and conditioned the timing of campaigns. Warfare was heavily influenced by **seasonality**, with monsoons constraining mobility, flooding rivers, and turning fertile fields into impassable marshes. As a result, winter and early spring often became the preferred campaigning seasons.

The subcontinent's **riverine corridors**, notably the Indus, Chenab, and Yamuna, provided natural highways for armies. These waterways facilitated lateral movement of troops and supplies while also serving as defensive barriers. Military engineering became essential: the use of **ferries, pontoon bridges, and intelligence on fords** enabled strategic crossings, often determining the outcomes of battles. Mastery over these rivers was not only a matter of tactical maneuver but also a key to sustaining long-distance expeditions.

Sustenance was a constant challenge. The balance between **dariyā (river routes)** and **rait (desert routes)** reflected trade-offs between secure water supply and vulnerability to ambush. Armies relied heavily on **banjaras**, professional caravan merchants, who functioned as logistical contractors. They provided grain, forage, and livestock along routes, ensuring steady provisioning for vast imperial armies. Without these networks, extended campaigns into the Gangetic plains or Deccan plateau would have been logistically untenable.

Finally, **siege logistics** represented one of the most complex dimensions of premodern South Asian warfare. Transporting heavy artillery, mantlets, and supplies required **camels, oxen, and elephants**, with elephants often doubling as shock troops and heavy lifters. Siege camps needed careful organization: sanitation, disease prevention, and food distribution became as decisive as battlefield maneuver. Epidemics, desertion, and supply breakdowns frequently eroded campaigns before decisive engagements were fought. In this way, logistics—more than combat alone—shaped the durability and limits of conquest across the centuries.

Recruitment, Pay & Command

The effectiveness of armies in the subcontinent from the Sultanate to the Mughal era rested not only on arms and tactics but also on carefully constructed systems of **recruitment**,

remuneration, and command discipline. These frameworks reveal how military organization was deeply intertwined with fiscal administration and courtly politics.

Under the **Delhi Sultanate**, the backbone of the army was maintained through the system of **iqṭāʿ grants**, whereby provincial land revenues were assigned to military officers in exchange for their service obligations. These fiscal-military contracts allowed rulers to mobilize mounted retainers and infantry without maintaining an expensive standing army. To prevent the rise of autonomous warlords, the **dīwān (finance department)** supervised allocations and regularly rotated iqṭāʿ-holders. Yet in practice, local power often crystallized around strong commanders, creating tensions between central oversight and provincial autonomy.

The social composition of armies evolved alongside these structures. Early reliance on **slave-soldier (mamlūk) and ghulām traditions** provided rulers with loyal troops detached from local kinship ties. Over time, however, recruitment widened to include **Afghans, Rajputs, and Deccani groups**, reflecting both the limits of importing Central Asian manpower and the political need to incorporate indigenous elites. This broader base diversified the army but also introduced competing loyalties that had to be managed through pay, prestige, and integration into court rituals.

The **Mughal system of mansabdār ranks** offered a more bureaucratized and flexible approach to recruitment and command. Each noble was assigned a rank divided into **zāt (personal rank)** and **sawār (cavalry quota)**, which determined salary and the number of horsemen they were expected to maintain. This system created a scalable mechanism for military expansion while binding nobles directly to the emperor. Crucially, salaries were funded through **transferable jāgīrs (land revenue assignments)**, which prevented hereditary consolidation of power. To enforce accountability, the state introduced **dagh (branding of horses)** and **chehra (descriptive rolls of soldiers)**, ensuring that nobles maintained their quotas honestly and could not inflate muster rolls for profit.

Finally, the **court–camp interface** reveals how command was inseparable from courtly culture. Military commanders were simultaneously courtiers, bound by rituals of loyalty, honor, and etiquette. The Mughal bureaucracy deployed extensive **scribal protocols, audits, and intelligence networks** to monitor both battlefield performance and fiscal integrity. Command was thus not simply a matter of martial authority but part of a broader system of surveillance, record-keeping, and political theater that linked imperial legitimacy to military effectiveness.

Forces, Arms & the Turn to Gunpowder

The transformation of military organization in the Indian subcontinent between the 11th and 17th centuries is most vividly reflected in the changing **forces and weapon systems** employed by successive dynasties. The progression from shock-oriented cavalry to composite gunpowder armies redefined both battlefield tactics and imperial power.

The **Ghaznavid and Ghurid militaries** exemplified the Central Asian model of warfare: **mailed cavalry armed with composite bows** formed the striking core of their forces. These horse archers combined mobility with disciplined charges, allowing them to penetrate deep into Indian plains from their Afghan bases. Alongside this cavalry backbone, **war elephants** were incorporated after campaigns in India, serving not only as instruments of shock but also as symbols of royal prestige and psychological dominance. This synthesis of steppe tactics with Indic elements created formidable raiding armies capable of both rapid strikes and pitched engagements.

The **Delhi Sultanate** institutionalized these earlier practices within a more **diverse military corps**. Elite mamluk and Turkish cavalry remained central, but the Sultanate relied increasingly on **Indian infantry contingents and elephant corps**, often deployed in **armored towers for archery and spear combat**. This blend of foreign and indigenous arms made Sultanate armies adaptable to varied terrains, from the Gangetic plains to the Deccan plateau. By the late 15th century, **primitive firearms and hand-cannons** began to appear in battle, but their tactical impact remained marginal, overshadowed by the enduring reliance on elephants and cavalry.

The arrival of the **Mughals in the early 16th century** marked a decisive revolution in South Asian warfare. At the **First Battle of Panipat (1526)**, Babur introduced the coordinated use of **matchlock musketeers (tufangchis)**, **swivel-mounted artillery**, and **field cannon** arranged in **wagon-laager and trench formations**. These innovations neutralized the traditional advantage of elephants and cavalry charges, producing a paradigm shift in subcontinental battle tactics. Successive Mughal rulers expanded this system, ensuring that gunpowder weapons were no longer auxiliary but central to imperial warfare.

This transformation was underpinned by a robust **infrastructure of gunpowder production and standardization**. Rich deposits of **saltpeter in Bihar and Bengal** became critical to supplying the empire with high-quality gunpowder. The state organized **guilds of gun founders, smiths, and carpenters**, who not only produced weapons but also standardized calibers, enabling greater efficiency in supply and deployment. By embedding artisans and engineers into the imperial apparatus, the Mughals ensured the routinized availability of firearms and artillery.

In sum, the arc from Ghaznavids to Mughals illustrates the **shift from cavalry shock to gunpowder firepower**, a transition that not only altered military outcomes but also enabled new forms of state-building in South Asia.

Fortifications, Sieges & Campaign Design

The history of warfare in the subcontinent from the Ghaznavid period through the Mughal age cannot be understood without attention to the centrality of **fortifications and siege warfare**. As political authority spread across diverse ecological zones, the capacity to capture or defend strongholds became decisive for imperial consolidation.

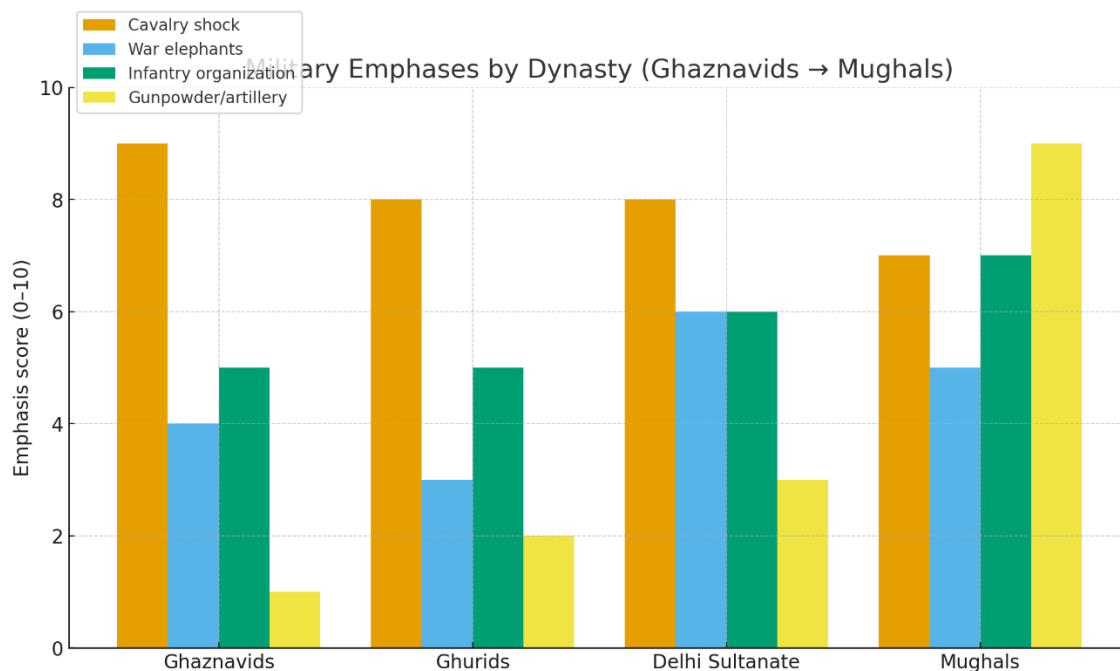
Early campaigns confronted a landscape dotted with **mud-brick and earthen fortresses**, especially in the northwestern frontier and riverine plains. Over time, rulers invested in **stone citadels with concentric defensive systems**, such as those of **Delhi, Gwalior, Chittor, and Agra**. These massive structures incorporated multiple walls, bastions, moats, and elevated platforms designed to resist cavalry assaults and elephant charges. Forts were not merely military sites but also administrative hubs and symbols of sovereignty; their endurance or collapse often determined the fate of dynasties.

Siegecraft, in turn, evolved alongside fortification technology. In the earlier phases, armies employed **battering rams, siege towers, and ladders**, supported by mining and sapping techniques to undermine walls. By the late Sultanate period, more destructive methods emerged: **petards, gunpowder mines, and incendiary devices** amplified the intensity of sieges. Under the Mughals, the integration of **heavy artillery** transformed sieges altogether. Cannon could deliver **direct breaching fire and ricochet shots**, reducing the impregnability of high stone walls that once secured Rajput and Deccani citadels. Campaigns like the Mughal sieges of Chittor (1568) and Asirgarh (1601) exemplify the new destructive capacity of artillery, where prolonged bombardment forced surrender despite heroic resistance.

Field tactics also reflected this interplay between fort and army. To counter elephant charges and heavy cavalry, commanders employed **fieldworks—palisades, cart-laagers, and trench systems**—that provided both defensive cover and firing positions for musketeers and artillery. These temporary structures allowed armies to withstand frontal assaults while controlling the tempo of battle. The model, famously deployed at **Panipat I and II**, demonstrated how fortification techniques could be projected onto open-field engagements.

Beyond engineering, the **operational art of campaigns** involved the coordination of multiple columns, encirclement strategies, and the careful balance between **blockade and negotiation**. Armies often besieged a fort while simultaneously securing surrounding territories to cut off supplies. Yet campaigns were not exclusively resolved by force: the subcontinent’s political culture emphasized **ritualized submission** (*sulḥ*), in which defeated rulers offered homage, hostages, or treasure in exchange for integration into imperial hierarchies. Such practices reveal how warfare intertwined with diplomacy, turning sieges into theaters of both destruction and negotiation.

In this way, fortifications and siegecraft became more than tactical concerns; they embodied the **fusion of military technology, political authority, and symbolic legitimacy** that shaped empire-building in South Asia.



Summary

Across seven centuries, military power in the subcontinent transitioned from raid-centered mounted shock to integrated gunpowder warfare embedded in fiscal bureaucracy. The Ghaznavids and Ghurids leveraged cavalry mobility and frontier logistics to puncture established polities; the Sultanate regularized conquest through *iqṭā'* finance and mixed arms; the Mughals fused artillery, drilled infantry, and standardized cavalry pay into a scalable, pan-regional system.

Technological adoption was inseparable from institutions: firearms gained decisive effect only when recruitment, pay, and supply chains were bureaucratized. Environmental diversity—from highland forts to riverine deltas—ensured that no single arm dominated everywhere; winning

coalitions were composite and adaptive. These legacies structured post-Mughal militaries and conditioned early-modern state formation across South Asia.

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