



WAR, CULTURE AND SOCIETY IN EARLY MODERN SOUTH ASIA, 1740–1849

Kaushik Roy

War, Culture and Society in Early Modern South Asia, 1740–1849

This book argues that the role of the British East India Company in transforming warfare in South Asia has been overestimated. Although it agrees with conventional wisdom that, before the British, the nature of Indian society made it difficult for central authorities to establish themselves fully and develop a monopoly over armed force, the book argues that changes to warfare in South Asia were more gradual, and the result of more complicated socio-economic forces than has been hitherto acknowledged.

The book covers the period from 1740, when the British first became a major power broker in south India, to 1849, when the British eliminated the last substantial indigenous kingdom in the subcontinent. Placing South Asian military history in a global, comparative context, it examines: military innovations; armies and how they conducted themselves; navies and naval warfare; major Indian military powers – such as the Mysore and *Khalsa* kingdoms, the Maratha Confederacy – and the British, explaining why they succeeded.

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Asian states and empires

Edited by Peter Lorge

Vanderbilt University

The importance of Asia will continue to grow in the twenty-first century, but remarkably little is available in English on the history of the polities that constitute this critical area. Most current work on Asia is hindered by the extremely limited state of knowledge of the Asian past in general, and the history of Asian states and empires in particular. *Asian States and Empires* is a book series that will provide detailed accounts of the history of states and empires across Asia from earliest times until the present. It aims to explain and describe the formation, maintenance and collapse of Asian states and empires, and the means by which this was accomplished, making available the history of more than half the world's population at a level of detail comparable to the history of Western polities. In so doing, it will demonstrate that Asian peoples and civilizations had their own histories apart from the West, and provide the basis for understanding contemporary Asia in terms of its actual histories, rather than broad generalizations informed by Western categories of knowledge.

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In memory of my father

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Preface

From my undergraduate days, the question that has occupied my mind is how a mere handful of British, i.e. 30,000 at best, were able to conquer a subcontinent of 300 million. While teaching undergraduate students at Presidency College and postgraduate students at Jadavpur University, I have to face repeated queries about the reasons behind the emergence of British power in South Asia. Most historians have tried to explain the British conquest of the 'jewel in the crown' by concentration on collaboration and economic factors. The military dimension behind the construction of colonialism which has been hitherto missing from all the scholarly studies is the theme of the present monograph. The focus of this study remains on the large landed empires of the subcontinent, who were the most serious competitor of the East India Company, rather than the peripheral powers such as Kandy and Nepal. The approach of this monograph is to focus mostly on warfare on land. While not eschewing the chronological approach, an attempt is made to analyse the culture of warfare through the use of new concepts like military fiscalism, military revolution, etc. I have tried to put South Asia on a comparative grid in order to explain the characteristics of British colonialism as well as the uniqueness (or lack of it) as regards early modern warfare in South Asia. Modern spellings have been used. But, rather than new spellings like Kolkata, Mumbai, Chennai, etc., which are the products of regional chauvinism, I have used the older and more well-known spellings in the text. Further, the terms India, South Asia and the subcontinent have been used interchangeably. Again, the term Westernization in this volume is equated with Europeanization and modernization. This book will be of use to both undergraduate and postgraduate students of early modern India and those dealing with the rise of British colonialism in South Asia. This volume will also be a starting point for further serious research on warfare and state in early modern South Asia.

Acknowledgements

The inception of this volume occurred in 2000, when the Indian National Science Academy gave me a grant for three years. This allowed me to shuttle between Kolkata and the various libraries and the National Archives of India at Delhi. I am also grateful to the Centre for the Study of Civil War at the International Peace Research Institute, Oslo for funding a trip to the British Library, London. The final prod for completing the manuscript came from my friend Peter Lorge, who agreed to consider it for his series. His book titled *The Asian Military Revolution*, along with Geoffrey Parker's magisterial survey *The Military Revolution*, inspired me. Last of all, I must thank Peter Sowden of Routledge, who agreed to consider the manuscript for publication.

Kaushik Roy
Kolkata 2010

Abbreviations

AG	Adjutant-General
BL	British Library, London
C-in-C	Commander-in-Chief
C3I	Command, Control, Communications and Intelligence
CME	College of Military Engineering, Pune
COIN	Counter-insurgency
EIC	East India Company
FDSC	Foreign Department Secret Consultation
GO	General Order
IOR	India Office Records
MD	Military Department
NAI	National Archives of India, New Delhi
POW	Prisoner of War
<i>PP</i>	<i>Parliamentary Papers</i>
QMG	Quarter-Master General
VCO	Viceroy's Commissioned Officer

Introduction

Some say that our empire in India rests on opinion, others on main force. It in fact depends on both. We could not keep the country by opinion if we had not a considerable force; and no force that we could pay would be sufficient, if it were not aided by the opinion of our invincibility, our force does not operate so much by its actual strength as by the impression which it produces, and that impression is the opinion by which we hold India.

H.T. Prinsep, 9 June 1835¹

One of the big ‘events’ of world history is the conquest of the Indian subcontinent by the East India Company (EIC) between the first half of the eighteenth and the second half of the nineteenth centuries. Most modern historians focus on economic and social factors to explain the transition from Mughal to British over-lordship in South Asia. Besides British economic power and the willingness of several indigenous communities to collaborate with the ‘alien’ regime, the failure of the post-Mughal ‘predatory’ indigenous polities to establish a stable state system is also harped upon. And the level of British intervention in South Asian politics, it is argued, was in direct proportion to the decline of the Mughal Empire and rising Anglo-French rivalry.²

The expansion of British power in South Asia was part of a larger process of expansion of the British Empire in Afro-Asia. Between 1815 and 1865, the British Empire grew at the rate of 100,000 square miles per year.³ In fact, the construction of an overseas empire by the British was in itself a component of the overseas expansion of the European maritime powers from the early modern era. William R. Thompson claims that along with military power, the availability of local allies who functioned as military auxiliaries of the Western powers and fragile state system of the non-Europeans, aided the rise of the West vis-à-vis the rest between 1500 and 1800.⁴ However, the increasing availability of local allies for the Western maritime powers and the disintegration of the political structures of Afro-Asia were accelerated due to the military power projection by the West Europeans.

Military opposition to the European powers by the Afro-Asian states was also a global process. Russia, the borderline state of Europe with steppe nomadic frontier on one side and the settled agrarian–industrial frontier on the other side, was able to cope successfully with threats from both the steppe nomads as well as its

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European neighbours. It also became a major European power in the eighteenth century. The Ottoman Empire was able to make a successful transition from a medieval feudal empire to a quasi-modern empire and continued to operate until the end of the First World War. China and Japan were also quite successful in transforming their militaries and surviving the Western onslaught. But, why did India fail?

The coming of the British in the extra-European world was not peaceful. I. Bruce Watson and Sanjay Subrahmanyam write that the idea of using force and fortifications in order to get trading privileges was an essential feature of the European maritime trading companies. The British believed that the Indian rulers only understood fear generated by force. However, the use of force was balanced by the cost factor.⁵ Peter Burroughs writes that the British relied on cooption backed by coercion in acquiring and maintaining the empire.⁶ As far as South Asia was concerned, the economic resources of Britain supported a robust military infrastructure which in turn allowed the EIC to further expand its empire. However, the military dimension of the establishment of the British Empire in South Asia is yet to receive rigorous historical analysis. There is no academic monograph explaining the military aspects of rise of colonialism in South Asia. There are some scattered articles by modern historians which are yet to be integrated in the general analysis of the rise of British military power in the subcontinent.

The historiography of the military rise of Western Eurasia on a global scale

Some British military officials and historians of the colonial state were concerned with the rise of British military power in South Asia. William Irvine in his analysis of the later Mughal and post-Mughal indigenous armies concluded that racial defects of the 'irrational' communities inhabiting South Asia prevented them from constructing dynamic military organizations. Treachery, deceit and intrigues were inherent in Asiatic characters which in the long run failed them.⁷ After Irvine, a British officer named G.B. Malleon followed a battle-centric narrative to explain the rise of British power in South Asia. Following Edward Creasy, Malleon writes that decisive battles and sieges determine the course of history. Malleon asserts that in all the great battles and sieges the British were able to defeat the Indians because of the former's superior moral and racial characteristics.⁸ Now, let us shift the focus to the writings of the post-colonial scholars.

Some scholars follow what could be categorized as a societal determinist approach. In accordance with this approach, social structure determines the military capability of that society. The followers of this approach accept the caste system as the crucial determinant of India's society. One of the proponents of this approach is Stephen Peter Rosen, an American political scientist, who asserts that divisive loyalties within a society adversely affected military effectiveness of the army maintained by that social structure. In India, the caste system divided indigenous society. The Mughal Army was not separated from the divisive society.

Since the Mughal Army reflected internal fissures of the Indian society, it was not combat effective. In contrast, the EIC was able to construct a combat effective, professional indigenous army by separating the sepoys from Indian society.⁹ In 1995, Seema Alavi in her monograph titled *The Sepoys and the Company*, accepts that rather than naked force, the incorporation of the army into society was the basis of British military superiority. Unlike Rosen, Alavi writes that instead of separating the army from indigenous society, the EIC gained power by accommodating several north Indian communities in its colonial army. These social groups acquired high status and financial privileges through service in the EIC's military.¹⁰

A group of historians harp on cultural factors to explain the establishment of British dominance in South Asia. In 1989, a Dutch historian, Dirk Kolff, emphasized ecological and cultural factors to explain weak states and weak armies in pre-British South Asia. Kolff claims that there was no shortage of military manpower in the subcontinent. The limitless availability of men and horses, the twin tools for military power, was due to semi-pastoralist nature of Indian agriculture. The marginal peasants joined military service during lean period, especially during monsoon failures and famines. Military service was also popular because it was the marker of status in the agrarian society. Since armed men were easily available, the indigenous rulers did not maintain permanent armies. This obstructed the generation of military professionalism. Demilitarization of the South Asian military labour market, says Kolff, was irrelevant to India's political culture. Hence, unlike early modern Europe, early modern India did not experience any demilitarization of society. Pillage and plunder held the armed peasantry to the warlords' war bands. Desertion was not considered a crime in accordance with the Indian value system. Kolff continues that clear division of war and peace, friends and enemies, was not applicable in eighteenth-century South Asian political culture. Temporary alliances characterized politics. Indian politics involved not monopoly power but theatrics and spectacles. Warfare involved keeping one's army together and inducing desertion from the enemy side rather than seeking to destroy the enemy combat force in a decisive set-piece battle. The EIC with its objective of achieving a monopoly over the instruments of violence in the public sphere for the first time in India's history, was able to demilitarize the military labour market in north India during the first half of the nineteenth century.¹¹

Kolff's cultural approach is not unique in the field of military history. John Keegan and Victor Davis Hanson in their volumes on global military history push the idea that war is a cultural activity. Not political and military logic as the neo-realist would argue, but cultural belief system (comprising of myths, taboos, customs, traditions, etc.) is the key determinant shaping the choice of military means of a particular ethnic group at a particular moment of time. The Clausewitzian paradigm of warfare for annihilating the enemy in a decisive battle, assert Keegan and Victor Davis Hanson, is rooted in the West's unique cultural assumptions.¹²

Kolff's culturalist model is similar to the interpretation of a large number of scholars working on South and South-East Asia. For instance, Jos Gommans in an article published in 1995 asserts that diplomacy and intrigues were essential

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components of the unique culture of Indian warfare. Drill and discipline were inimical to the fluid indigenous armies characterized by shifting allegiance. Ultimately, the EIC's victory during the eighteenth century was due to a different cultural approach to warfare which focused on destruction of the enemy rather than merely subjugating them.¹³ Similarly, Victor Lieberman writes that the European armies' commitment to Total War and a determination not merely to rout the enemy armies but to destroy them, explains the rise of the Western powers against the South-East Asian forces which followed desultory encounters resulting in low fatalities.¹⁴ Raiding and the objective of acquiring slaves rather than annihilating the enemy seemed to be the 'natives' way of warfare in pre-Spanish Philippines.¹⁵

Culture in relation with ecology proved to be an obstruction, commented several historians, as regards indigenous military modernization. John F. Richards, the American historian of Mughal India, accepts Kolff's assertion that one of the principal factors which prevented the rise of strong states in pre-colonial South Asia was the presence of large numbers of armed peasantry. The peasantry was armed because many peasant groups descended from militarized pastoral nomadic formations who later took to sedentary cultivation.¹⁶ The presence of fragile indigenous armies and weak states in South Asia allowed the emergence of the warlords. These warlords, writes William R. Pinch, were ready to desert their erstwhile masters and join new power brokers in accordance with the shifting political circumstances. The forces of such warlords comprised of marginal farmers, sharecroppers and warrior ascetics.¹⁷ Stewart Gordon in two articles published in 1998 and 2002 respectively claims that the cavalry-based indigenous armies proved ineffective against the infantry-centric, firepower-heavy European armies. In response, several South Asian rulers tried to raise troops in the Westernized fashion led by Western mercenary officers. The indigenous rulers failed to evolve cultural codes which would integrate the mercenary officers with the ruling dynasties.¹⁸

For another group of historians, the organizational factor was one of the crucial drivers behind the supremacy of the EIC in South Asia. In 1977, Gayl D. Ness and William Stahl argued in an article that the military dominance of the Western powers in South and South-East Asia was due to organizational superiority.¹⁹ C.A. Bayly and Douglas M. Peers influenced by John Brewer's concept of the military-fiscal state, write that the EIC from the second half of the eighteenth century represented an aggressive military-fiscal organization of the Prussian variety. Peers categorizes the EIC polity as a Garrison State. Security demand was the principal operative factor for the managers of the Garrison State. The instrument of security was the EIC's armies which were maintained out of the land revenues sucked from the countryside. Indigenous resistance to the EIC's military-fiscal machine was not coherent because the South Asian polities were friable with divisive sovereignties.²⁰ Both the culturalist and the organizational schools accept that pre-British states were weak and the military forces at their disposal were heterogeneous war bands rather than professional standing armies capable of waging sustained warfare.

Military Revolution and the rise of the West

Within the technological determinist approach, the 'Military Revolution' school is the most dominant. In 1956, Michael Roberts first introduced the notion of a Military Revolution occurring in West Europe between 1560 and 1660. Gustavus Adolphus the Swedish monarch initiated this Military Revolution by introducing certain tactical, technological cum organizational changes. The Revolution of Tactics during the Thirty Years War involved the introduction of firearms, drill and uniform which in turn gave rise to the professional standing armies.²¹ Geoffrey Parker elaborates Roberts' Military Revolution concept and links it with the 'rise of the West'. Parker asserts that West Europe experienced a Military Revolution. Between 1300 and 1500, the introduction of gunpowder artillery and a new system of fortifications (*trace italienne* or *alla moderna*) revolutionized the conduct of warfare. In the fifteenth century, the range of the artillery exceeded that of the bows. By the sixteenth century, hand-held firearms dominated the battlefields. This tactical revolution in turn generated a strategic revolution. The size of the armies increased because infantry was cheaper than cavalry and the introduction of new fortress architecture required a larger number of infantry. Hence, the scope and scale of warfare expanded. This in turn caused an expansion of state power for raising, feeding and managing the expanding permanent armies. Parker continues that in the sixteenth century, naval warfare was revolutionized. The ships of the line with broadside artillery replaced the tactics of boarding and ramming. The technique of gunnery bombardment along with sturdier West European ships enabled the West Europeans to command the oceans of the world. The use of gunpowder artillery enabled the Western armies to capture non-Western forts very easily. In addition, the *trace italienne* style of fortifications enabled the West European maritime powers to establish coastal enclaves in Afro-Asia.²²

Jeremy Black asserts that instead of the period 1560–1660 as emphasized by Roberts and Parker, the period after 1660 witnessed more significant military changes. Further, rather than the Military Revolution giving rise to centralized states, it was the emergence of absolute state which made the military transformation possible. Black denies the concept of Military Revolution because the process of radical innovations in West European warfare exceeded a century.²³

As a reaction to Black's criticism, Clifford J. Rogers argues that the rise of the West was due to a series of Military Revolutions. During the Hundred Years War (1337–1453), two Military Revolutions occurred. An Infantry Revolution occurred between 1302 and 1346, which was followed by an Artillery Revolution (from 1450 onwards). In response, a Fortification Revolution (sixteenth century) occurred which in turn was followed by a Revolution in the Administration of Warfare. The series of Military Revolutions occurred in West Europe due to its fragmented political structure which heightened political and military competition among the polities and the technological bias of the West Europeans for solving problems. The former provided the motive and the latter the means for successive military changes.²⁴ Parker in a rejoinder notes that the term Military Revolution could be applied for explaining radical military changes that occurred through

300 years because historians of antiquity continue to use the term Agricultural Revolution, though it covered a millennium.²⁵ Similarly, historians use the term Industrial Revolution, though this transformation also occurred through several centuries.

John Stone and John A. Lynn warn that any military transformation if one wants to call it revolution, cannot be understood merely by focusing on technology and military techniques without taking into consideration the wider social, political and economic processes.²⁶ Lynn, Mahinder S. Kingra and others challenge Parker's linkage of the rise in the size of the armies of the West European powers with the advent of *trace italienne*. For Lynn, demographic expansion, rise of mercantile economy and urbanization rather than a piece of Renaissance technology, i.e. *trace italienne*, resulted in transformation of warfare. Lynn is a structuralist and believes that big changes follow not from small causes but broader long term causes.²⁷

In 1995, Parker somewhat modified his argument by propounding the concept of a Western Way of Warfare. He wrote that after 1650, the West went on a military offensive against the non-West. And by 1800, the Western Way of Warfare became dominant in the world. From the eighteenth century onwards, the Industrial Revolution made the Western Way of Warfare virtually unstoppable. Only some non-European states survived by imitating the Western Way of Warfare. The characteristics of the Western Way of Warfare were reliance on superior technology to offset numerical inferiority, technological innovations and the ability to respond to them. Rapid adaptations and innovations characterized the Western armed forces. While the West judged military innovations on the criteria of effectiveness, other civilizations rejected several military innovations on religious and cultural grounds. The mobilization of the armies of the West was on the basis of discipline and not on the basis of religion and kinship. Discipline increased the cohesiveness of the military personnel which in turn raised the combat effectiveness of the Western armies. The combination of drill, discipline and firearms gave the Western armies a crucial advantage. Infantry remained the key element in the Western Way of Warfare. Another feature of the Western Way of Warfare was its dependence on military doctrine and a clear cut theory of warfare. The Western Way of Warfare was capital intensive. In order to finance Mars, the West European states experienced a Bureaucratic Revolution. Thus, the capital intensive Western Way of Warfare generated centralized bureaucratic states. And the centralized states generated a Financial Revolution. The market economy of the West was able to finance the Western Way of Warfare.²⁸ One smells here the influence of William H. McNeill who wrote that the free market economy of the West generated military innovations which established the superiority of the West in the extra-European region.²⁹

The Military Revolution thesis has influenced a lot of scholars working on South Asian military history. In 2004, Gommans noted that between 1000 and 1800CE, India and China experienced a horse warrior revolution. And this revolution was sustainable because of the increasing agricultural productivity of south China and South Asia. Both the Manchu Qing Empire and the Mughal Empire

were based on the military superiority of horse warriors. However, India did not experience the Gunpowder Revolution.³⁰ In two articles, a British historian G.J. Bryant asserted that until the 1760s, an artificial symmetry kept the indigenous South Asian armies obsolete and the primacy of cavalry was retained.³¹ Bryant is influenced by Jeffrey Greenhut, an American military officer turned historian who had written that pre-British warfare in South Asia was in stasis due to geographical insularity of the subcontinent. Warfare in South Asia was characterized by light cavalry organized on a feudal basis. The advent of the British changed the rules of the game.³² By hiring European experts, continues Bryant, the indigenous armies during the second half of the eighteenth century tried to copy the West European Military Revolution model. But, the indigenous armies failed because they were not ready to give primacy to firearms-equipped infantry that could operate in unison with field artillery. In 1994, Pradeep Barua asserted that between the late eighteenth and early nineteenth centuries, the indigenous armies underwent transformation by imitating Western-style military techniques. The feudal army of Mysore became a somewhat centralized monarchical army. The Maratha and the *Khalsa* armies from feudal became somewhat like semi-national armies. However, the three feudal monarchies of India did not get adequate time to create centralized institutions for governance.³³ In 2008, Peter Lorge asserted that the EIC by initiating a Military Revolution between 1750 and 1850 gained military dominance in South Asia. Like Barua, Lorge accepts that the indigenous rulers' failure to modernize the state structure resulted in their failure against the EIC.³⁴

The most powerful indigenous power which opposed the EIC was the Maratha Confederacy. Most of the scholarship related to the military collapse of the Marathas focuses on the Second Anglo-Maratha War (August 1803–1805), and especially on the year 1803. This is because 1803 was characterized by several big battles between the Maratha Confederacy and the EIC, while the First Anglo-Maratha War (1774–83) and the Third Anglo-Maratha War (1817–18) were characterized by protracted attritional struggles and numerous indecisive skirmishes. And military historians are generally enamoured of decisive battles. John Pemble and Randolph Cooper belong to this group. Pemble and Cooper claim that the Maratha failure was due to disintegration of their command, control, communications and intelligence in 1803. The desertion of the European officer corps made the Westernized contingents of the Marathas militarily ineffective just before the confrontation with the EIC in 1803.³⁵ Cooper continues that the Maratha command system disintegrated due to financial constraints and faulty policy of Daulat Rao Sindia. Cooper in his monograph speculates that the superior financial resources of the EIC enabled it to buy off several officers from the contingents of Sindia.³⁶ The 'big' questions are why the British failed against the Marathas during the First Anglo-Maratha War and how the Marathas were able to make a comeback for a final confrontation with the British during the Third Anglo-Maratha War. Further, we still lack academic analysis of the failure of Mysore and the *Khalsa* Kingdom against the British.

Scope and objectives of this volume

Racial superiority of the West Europeans, a key factor in the paradigm of colonial scholars like Irvine and Malleeson, is transformed into cultural superiority of the *feranghis*, in the framework of the modern Culturalist School. Both British colonial scholars and the Culturalist School fail to explain why the racial character/culture of the South Asians was different from that of the West Europeans. For both groups, racial characteristics/cultural uniqueness of the West Europeans was a sort of *terra incognita*.

The strength of this volume lies in the comparative analysis of the three most powerful South Asian polities (Mysore under Haidar Ali and Tipu Sultan, the Maratha Confederacy and the *Khalsa* Kingdom) vis-à-vis the EIC. In addition, South Asian land and sea warfare have been compared and contrasted with warfare in Europe and other parts of the world. The uniqueness (or lack of it) of warfare in South Asia becomes clear when one puts it in a global perspective. Both Keegan and Hanson, following the culturalist approach, and Parker, in accordance with his technological determinist perspective, accept that the Western Way of Warfare could be traced back to the close-order infantry battles waged by the hoplites of Classical Greece. However, unlike Parker, Keegan writes that the so-called modern warfare of the West borrowed a lot from the 'Orient'.³⁷

A judicious blend of Western techniques and indigenous traditions, claim a group of scholars using organizational approach, enabled the West European powers to emerge victorious in the non-Western regions. For example, John K. Thornton writes that during the sixteenth century, the Angolans fought with infantry in open order and they did not enjoy numerical superiority over their European opponents. The Portuguese not only had to recruit indigenous manpower but also had to adopt Angolan skirmishing tactics in order to gain victory. Only in the late nineteenth century was the West able to gain substantial military technological superiority over the Central Africans.³⁸

This volume will show that the British adopted certain war-making elements from the South Asians and integrated it within the format of their Western military organization. This in turn made the EIC's military establishment more combat effective in South Asia. For instance, besides retaining drilled and disciplined firearms-equipped infantry, the EIC recruited a large number of light cavalry from the subcontinent. Hence Surendranath Sen and N.K. Sinha's argument that by Westernizing³⁹ their armies instead of retaining their traditional light cavalry force, the Maratha Confederacy and Tipu's Mysore fell easy prey to the EIC's military machine,⁴⁰ is not sustainable.

This monograph highlights the role of military technology but steers clear of technological determinism. John Law defines technology 'as a family of methods for associating and channelling other entities, both human and non-human'.⁴¹ The role of technology is mediated by key figures who occupied positions of power. The inter-linkages between organization, human agency and military hardware are highlighted in this volume. Challenging linear determinism, the role of chance is also highlighted in this volume. A.S. Bennell notes that the Maratha defeat during

the Second Anglo-Maratha War was not inevitable. Had the Marathas achieved political cohesion among all the *sirdars* in 1803 and if the Maratha *sirdars* had shown the aggressive efficient military command style as exhibited by Jaswant Rao Holkar, then history would have taken a different course.⁴² Such possible turning points, when history could have turned but refused to turn, also occurred during the Third and Fourth Anglo-Mysore and the First Anglo-Sikh wars as this volume will show.

Whether the Military Revolution gave rise to centralized polities or vice versa is a chicken–egg controversy.⁴³ What is important is that a radical transformation of the armed forces was not possible without the existence of a centralized state. Hence, this volume discusses the dialectical relationship between evolution of centralized bureaucratic states and radical transformation of the militaries in South Asia. David B. Ralston in a monograph claims that successful adoption of the West European military organization involved radical changes in the host society.⁴⁴ Societal transformation and Westernization of the armies in South Asia during the eighteenth and first half of the nineteenth centuries is also a theme addressed in this book.

The first chapter shows how the EIC acquired naval supremacy in the Indian Ocean, Arabian Sea and Bay of Bengal by fighting the French, Maratha and Mysore navies. The second chapter traces the changing patterns of Mughal Warfare until the first half of the eighteenth century. The third chapter focuses on the evolution of the EIC's armies and the colonial state. The fourth, fifth and sixth chapters portray the political economies, state structure and armies of Mysore, the Maratha Confederacy and the *Khalsa* Kingdom. The volume also depicts the simultaneous and sequential struggles between the Indian powers as well as the conflict between the Indian states and the EIC. The French appear in our story both as the official representatives of their company as well as individual mercenaries.

As regards warfare in colonial India, most of the sources were generated by the British for the British. Official, semi-official as well as individual British private accounts all exaggerate the strength of the indigenous armies and underrate the size of the British-led armies. The British sources also overestimate the casualties of the indigenous South Asian armies and underestimate their own casualties sustained in different campaigns and battles. This was partly done to highlight the valour and heroism of the British and also was due to lack of accurate knowledge about the military organization of their 'native opponents'. Hence, it is difficult if not impossible to narrate the South Asians' side of the story. A similar problem as regards reconstructing the military activities of the Maori tribe of New Zealand who fought the British during the nineteenth century is pointed out by James Belich.⁴⁵ For Chapter 3, archival records from the National Archives of India at New Delhi and India Office Records, British Library, London and the *Parliamentary Papers* have been used. However, the British-generated records give us the British perspective. Hence, for the rest of the chapters, archival documents have been used sparingly. For a holistic and not merely British perspective, documents generated by the indigenous powers as well as French accounts have been used. Memoir materials by British individuals (who travelled in private and

official capacities) and by those Frenchmen who were employed in the *durbars* of the Indian princes provide a perspective different from the 'official' one of the archival records. This volume is a cross between a piece of original research and a work of synthesis. Besides using primary sources, the volume also draws upon a large number of lesser known works dealing with various local aspects of colonial warfare. Now, let us turn the focus to the transformation of naval warfare in South Asia during the early modern era.

1 Naval warfare in South Asia: 1500–1850

The first step in the British conquest of South Asia was mastery over the Indian Ocean, and the seas (Bay of Bengal and the Arabian Sea) and rivers (Ganga and Indus) of the subcontinent. However, the British were latecomers in the Indian Ocean. Before them, the Portuguese had established maritime dominance. During the eighteenth century, Portuguese power was declining and the principal West European maritime competitor for the British was the French Navy. After the French were defeated, there was no serious threat to the British in the high seas. Among the indigenous powers, only the Marathas constructed a coastal navy, which over time went from a nuisance to a serious threat for the EIC. Now, let us have a comparative look at the indigenous naval traditions vis-à-vis the Western naval warfare that unfolded as part of the Military Revolution.

The Naval Revolution in West Europe and its impact on the wider world

The Naval Revolution was the product of the fusion of maritime technology of West European sailing ships with heavy artillery born out of the Gunpowder Revolution. This occurred in the sixteenth century.¹ Between the fourteenth and fifteenth centuries, the West Europeans developed long-range naval capabilities following the development of sailing vessels, navigational methods and armaments. Caravels (three-masted *naos*, i.e. Columbus' ships), carracks and galleons were operating during the mid-sixteenth century. And ships of the line came into existence during the seventeenth and eighteenth centuries. Geoffrey Parker asserts that by 1500, the full-rigged ship which first emerged in the Iberian Peninsula spread northward in the course of the fifteenth century and became the most important sailing vessel along the Atlantic Coast. With its powerful construction it was not only capable of absorbing the recoil of outgoing gunfire but its superb sailing qualities made possible voyages of discovery and exploration.² The appearance of sliding carriages for the principal center-line bow guns came around 1500.³ The broadsides (heavy naval artillery) required the invention of hinged gunports in the hull because heavy artillery could only be safely deployed along the sides of the ship's lower deck.⁴ By the 1580s, the size of galleons was doubled. By the 1620s, galleons mounted heavy guns in broadside batteries close to the waterline.⁵

The Chinese Navy of the fourteenth century used only light cannons capable of anti-personnel fire. These light cannons were not able to sink the West European ships because the junks, being weakly planked and timbered, were unable to carry heavy guns.⁶ During the Anglo-China War (late 1839 to 1843), the Chinese used fire ships/fire rafts in an effort to burn British ships anchored in the mouths of rivers and creeks. However, the fire ships proved to be useless.⁷ Lieutenant John Ouchterlony, who participated in the Anglo-China War, describes the fire rafts in the following words:

The vessels employed... to set fire to our fleet... being large strong boats crammed and piled up with brushwood, straw, oil, and other combustibles, and having chests of powder at the bottom, to explode and scatter the burning fragments among the ships.⁸

As regards the naval encounters that occurred between the Chinese warships and their shore batteries vis-à-vis the British ships, the British found out that the quality of gunpowder used by the Chinese was bad and their gunnery worse. The Chinese gunners failed to hit their targets.⁹

In the sixteenth century, the Portuguese were the premier maritime power in the Indian Ocean and the Arabian Sea. The principal Portuguese base in the Indian subcontinent was Goa. Initially, Goa was part of the Bijapur Sultanate. The Portuguese maintained fortified enclaves at Cochin and Cannanore. The Portuguese Governor of India Alfonso de Albuquerque captured Goa by assault in 1510.¹⁰

During the sixteenth century, the Sultanate of Gujarat and the Moplas of Malabar manufactured ships, each of which was about 150 tons. Each was about 74 ft in length and 25 ft in width. These ships were made of wood with iron nails used for the joinings.¹¹ In the seventeenth century, the crews of Malabar ships were equipped with stink pots (primitive hand grenades which were thrown towards the enemy ships for threatening the rowers) and lances but lacked ship-borne artillery. Their tactics involved closing with the enemy and then boarding the enemy ships to overpower the crews and capture the vessels.¹² This was similar to the Roman naval tactics.¹³

At Calicut, the caste known as Odayis specialized in shipbuilding. For lashing the planks of the vessels they did not use nails but made them fully waterproof with proper caulking. The ships which they constructed weighed between 350 and 400 tons.¹⁴ In 1498, eight ships of Zamorin of Calicut attacked unsuccessfully the caravel *Berrio* of Vasco da Gama's fleet. *Berrio* had bronze cannons while Zamorin's ships had crews equipped with bows, arrows, lances, swords and javelins but no guns. The Portuguese ships were constructed with iron nails while Zamorin's ships were sewn with coir. In response to the superiority of Portuguese naval artillery, Zamorin acquired cannons from the Ottomans. However, the cannons of Zamorin's paros could throw only stone shots.¹⁵ In 1503, the fleet of King Zamorin of Calicut comprised of 160 paros and each paro had two guns. These ships were designed by two Italians named Antonio and Maria. The sides of the

ships were protected against cannon balls by hanging sacks filled with cotton.¹⁶ These ships were designed for coastal warfare along the littoral of the Arabian Sea. Such ships could carry cargos in the rough sea but were not purpose-built warships and their hulls were unable to absorb the recoil of the heavy guns.

In north India, gunpowder weapons in the ships used for riverine warfare were introduced by the Mughals. For conducting riverine warfare in Bengal, the Mughals initially depended on war boats supplied by the zamindars.¹⁷ In 1539, during the riverine naval battle which Emperor Humayun fought at Karmansa River near Chausa against the Afghan warlord Sher Khan (who founded the short-lived Suri dynasty after defeating Humayun), the Mughal boats were filled with men equipped with matchlocks, spears and stones.¹⁸ In east Bengal, the Mughals set up a naval post at Dacca under Akbar (Emperor from 1556 to 1605). The Mughals used small boats known as *khelna* which recorded the depth of the rivers before the main fleet moved into those parts of the rivers. The *khelna* boats were pilot boats of the latter-day navies.¹⁹ In 1582, the Mughals under Akbar hired 923 Portuguese sailors for the Mughal Eastern Fleet stationed at Dacca. At that time, the Eastern Fleet comprised 768 armed ships.²⁰

The wounded marines in the Mughal ships were treated with opium mixed in the soup.²¹ Until the eighteenth century, one in four of the European crews on the ships that made voyage from London to Bombay fell prey to scurvy. Strict discipline among the European sailors was maintained by means of flogging with the cat-o'-nine-tails. During long voyages, European sailors to reduce boredom in the ships resorted to cards, music, dancing and fishing.²²

Under Aurangzeb (Emperor from 1659 to 1707), the largest Mughal ship named *Ganj-i-Sawai* and equipped with 800 guns and 400 musketeers, was stationed at the port of Surat. Towards the end of the seventeenth century the Siddis of Janjira became a powerful non-state naval power in the Konkan region. The Siddis were engaged in naval conflict with the Marathas. Soon, the Siddis and the Mughals joined forces against their common enemy, the Marathas. In 1689, Siddi Yaqut received a subsidy of Rs 400,000. He had large ships, each of which weighed between 300 and 400 tons. These ships were not suitable for fighting a sea battle with the West European battleships but were able to transport soldiers for conducting an amphibious attack on islands situated near the coast.²³ The big Mughal ships ought to be compared with the battleships of the strongest maritime power of West Europe, i.e. Britain, as well as with another agrarian bureaucratic empire founded by the steppe nomadic horse warrior aristocracy, i.e. the Ottoman Empire.

The ships of the Ottoman fleet at the end of the eighteenth century, writes S.J. Shaw, were massive and bulky with very high poops, superstructures, riggings, and of a width almost as great as their length. These ships were very difficult to manoeuvre in normal conditions, let alone in battle, and were prone to capsize during storms and under attack. Further, the ships were structurally weak as the excessive distance between their principal beams caused them to break up with violent movement. The failure to apply caulking regularly between the underwater planks caused them to be porous and to take on water continuously. Even towards the end of the eighteenth century, most of the Ottoman ships were