CHAPTER - THREE

MUSEUM AS AN AGENCY OF MILITARY STUDIES

Need for Military Studies and Museum of war materials:

The subject 'Military Studies' is very much a subject based on science. It includes all the branches of major science and technological subjects like — Physics, Chemistry, Biology, Geography, Psychology, Engineering, Medical etc. Besides science subjects, it also includes subjects like History and Law. So one can easily estimate the importance of the subject — Military Studies.

In a free country, whether its people are peace loving or not, the importance of military studies can not be overlooked or underestimated. We the Indians are by nature a peace loving nation and our national policy is not to capture lands of neighbouring foreign countries by aggression. Still, to maintain internal peace and security and to save our country from external aggressions, the knowledge and training in military science are desirable to each and every citizen, specially to the able bodied younger generation, both boys and girls.

In India, there are Art museums, Archaeological museums, Science and technological museums, Natural History museums, Children museums, Biographical museums and even beautiful Doll museums but there is not a single museum which can be called 'Museum of War-materials' in the true sense of
In military academies like Dehradun, Khadakwasla etc., there are mini war-museums but those are not for public use. In different Regimental Centers of the Indian Armed Forces, one will find a few galleries having some war materials, mementos and the Regimental history only, which are also closed to the public. There are some galleries having some good specimens of military importance in Red Fort museum, Salarjung museum, Jaipur Palace museum, Victoria Memorial Hall, Murshidabad Nawab Palace museum and various other Archaeological museums distributed all over India, but these museums have no educational activities for the students or the general mass on the particular subject nor these museums project any theme on Military Studies on their collection. Beside these, in different places throughout India objects of military importance like big guns, tanks etc., are scattered even without proper care. For example mention may be made about the 'Tank' just left over in the Brigade Maidan area of Calcutta, captured by our brave Jawans during the recent war with Pakistan. There is none to explain it to the public where from this tank was collected, when it was captured, which unit did it, how this tank is used and many other queries that may arise in the mind of the interested visitors. Unless proper care is taken to preserve this important object and other such objects, these will be worn out in course of time through natural hazards and the nation will suffer a great loss. Museums are the proper place to these objects
for study, enjoyment and to evoke a sense of national pride among the posterity and also to know Indian History and Culture in proper perspective. A part of the history of mankind is the history of war and feuds, economic growth and political supremacy of different countries and regions or nations and people and is always based on its military prowess and their cultural history is never devoid of military profile of such people.

Military education and galleries of military museum:

In the foregoing discussion the necessity of military education and military museum has been briefly explained. Now the problem is what are the objects to be displayed in galleries of a museum of war materials for the education and enjoyment of the general mass and the interested visitors. The main aim of a museum of war materials is not to produce trained soldiers but to stimulate interest in the defence of the country, to arouse a national feeling, to feel proud about our national heroes and to help to become a disciplined citizen.

A museum of war materials, regional or national, should have well organised different galleries at least for the following: (I) Uniforms, (II) Badges of ranks, (III) Insignia of different Regiments, (IV) Flags, (V) Medals, Decorations and Ribbons, (VI) Armour, (VII) Armaments and vehicles, (VIII) Ships and Aeroplanes, (IX) War musical instruments, (X) Weapons, (XI) Forts, (XII) Battle-formations,

Each of these galleries should be broadly divided into three sections: (a) One section will show the chronological changes in Indian articles starting from Stone Age to the date; (b) the second section should contain the articles actually used by the outstanding soldiers and leaders of forces and (c) the third section should contain the relevant articles of the neighbouring states of India, viz., Afghānistān, Pakistan, Nepal, Bhutan, Burma, Bangladesh, China, Russia and Sri Lanka.

The first section will stimulate interest in the defence and defence forces of the country, in all the citizens of India, while the second section will arouse the sense of national pride and make the people conscious about the national heritage in this sphere of life. The third section is equally, if not more, important in defence preparedness of the people, as this section will make them more knowledgeable about the soldiers of the neighbouring countries, and will thus minimize the chance of infiltration or sabotage by the soldiers of those countries, if any of them becomes enimical to India. On the other hand, if good neighbourly relation exists, common-folk of our great country will be in a better stead to the isolated soldiers of the neighbouring countries whenever the need would arise.
(I) Uniforms: Throughout the ages soldiers of all countries have dressed themselves in some specific uniform. The uniform has varied effects upon a soldier. It instils discipline, irons out the individual angularities, brings in the sense of homogenity, develops the sense of belonging, and infuses the required sense of pride as also alertness. The colour, pattern and the design of the uniform reflect the social taste and efficiency in dress technology. Further, for the reasons of tactics the pattern and colour of the uniform change.

The different regiments of the present Indian Armed forces have their specific uniforms. These varieties should be displayed in the galleries to give a comprehensive idea about the variety and usefulness of the uniforms.

Further, the uniforms of the Indian soldiers have also undergone evolutionary changes from time to time. The gradual transformation of the uniforms if exhibited chronologically from the earliest record to date in properly set galleries would give us an insight into the subject.

The particular uniforms worn by the national heroes, e.g., Sher Shāh, Shāh-Jehān, Rāna Pratāp, Aurangzeb, Šivāji, Netāji Subhās Chandra, Major Saitān Singh and others should form a special gallery. These will unobtrusively develop the sense of national pride in all the visitors, besides enabling them to comprehend about the physical and mental characteristics of these worthy men of the Indian history.

Another important section should be the gallery
containing all the existing types of uniforms of the neighbouring countries — Afganistān, Pākistān, Russia, Chinā, Bhutān, Nepāl, Burmā, Bānglāadesh and Ceylon.

Where the exact articles would not be available, those can be substituted by models, charts and photographs etc. Probably, the best way of exhibiting the uniforms would be to prepare life-size models of soldiers of the respective regiments of various ages and countries.

(II) Badges of ranks: In this section the insignia of ranks from the highest officer down to the sepoy of all the arms of defence forces of India should be displayed according to the rungs of the organizational ladder. This section will have additional educative value, if along with the insignias, charts showing the organizational ladder can be exhibited.

As the organizational pattern, ranks and the badges of ranks have also undergone changes in different ages, the evolutionary section can be easily organized, and this section will be quite colourful. Rank-badges of all the ages may not be available; those can be refabricated from the available descriptions and in certain cases authentic paintings and prints may also be used.

These badges of ranks differ from one country to the other. Therefore, to make the section attractive and educationally significant the badges of ranks of the neighbouring countries should be exhibited; if possible with
the chronological development.

(III) Insignia of different Regiments: Each regiment has its own specific insignia, e.g., Cap-badge, Plumage, Special type of head-gear, Lanyard, Shoulder-badge, Ceremonial dress, Durbar-dress, Buttons of the shirts, Neckties, Sticks,Scarfs, Cuff-links, Tie-pins, etc. These have also changed from time to time. All these can be exhibited in scintillating ways.

The badges and other insignias actually used by the national heroes, if exhibited in proper way, will surely arouse the sense of national pride in all Indians irrespective of age, language and religion.

The insignia of the various regiments of the neighbouring countries will easily arouse interest and make the people more knowledgeable about their neighbours.

(IV) Flags: Colourful standards bearing emblems as distinctive symbol of different heroes and of different regiments of India along with brief history in chronological order will be of great educative value to the onlookers. These flags have also changed from time to time to meet historical demands.

Flags are also being used now for various formations, regiments, officers of different ranks, ships, planes etc. Besides decorations some special types of flags are also used for Semaphore messages sent mainly by ships. The Regimental Flags of the neighbouring countries will add additional interest to this gallery.
(V) Medals, Decorations, Ribbons etc.: There are and were various medals and decorations for different stages of bravery, leadership and service for the soldiers of all ranks. In this gallery original, replicas or models of various medals, decorations etc., awarded by the government of India and those of other countries should be kept.

(VI) Armours: The different types of armours like coat of mail, helmet, hand-guard, foot-guard etc., used by Indian soldiers through ages and the armours used by the animals deployed in war can be shown in the museum galleries. It is better to keep the original objects as far as possible, otherwise, lifesize replicas of these armours should be substituted to give an idea to the visitors about the armours of those days. Charts should be used to explain names of different parts, their uses, weights, cost, materials used etc.

(VII) Armaments and Vehicles: In this gallery different types of Tanks, Weapon-carriers, MT Vehicles etc., used in India and other countries may be shown with the help of cut-out models and working models to explain their mechanism. Original objects too can be kept in a separate place.

War-vehicles have also changed through the process of evolution with the advancement in technology. In many cases the original specimens may not be available — particularly of the ancient and medieval ages. Models of those
war-vehicles may be fabricated from the available description in various texts, historical documents, or from sculptures, paintings and archaeological discoveries.

(VIII) Ships and Aeroplanes: Cut-out model and models of different types of boats, men-of-war and aeroplanes including helicopters used in Indian military operations can be precisely demonstrated and their working principles should be explained by the museum personnel to all the visitors. Charts and diagrams would be useful to show the names of different parts of these objects, their gradual evolution due to advancement of science and technology, materials required for their preparation and the fuel used and other interesting information if any.

Gradual evolution and transformation of these would not only be attractive but exciting for soldiers, common folk as also for the technologists and engineers. Proper reconstruction of the ancient and medieval ships and planes with indigenous materials may open new vistas of research.

(IX) Musical instruments: Musical instruments have been used by the soldiers in India since the pre-historic days to arouse the martial spirit in the soldiers, to cause panic in the opponents, to signal some messages, to declare victory and also to rejuvenate the battle-tired soldiers. The instruments were not and are not always sophisticated ones.

The gallery presenting various types of musical instruments used in war through ages in India by various
tribes, clans and regiments is sure to attract the visitors. This gallery will be more lively if records of instrumental and vocal musics of marching songs, regimental songs and some of the important and favourite songs of the soldiers can be played. This will not only be entertaining for the common folk but also stimulate the musicians and music directors. At the same time this will highlight the effectiveness of some crude instruments played by the soldiers.

(X) Weapons: This gallery will necessarily be very big one and will be more attractive. Different types of weapons used in India starting from the Stone Age to the date can be displayed in a chronological order. The weapons should be classified according to prevalent system of the particular period as discussed in the earlier part of this thesis.

In the same section, galleries containing weapons normally used by the armed forces of the neighbouring countries and advanced countries can also be kept. It is better to keep the originals along with the cut-out models of these objects and charts explaining the mechanism, rate and cost of production, place of manufacture, effectiveness and peculiarities if any.

In a National museum of war materials at least one set of weapons used by the Nawabs, Rajas, Emperors and other national heroes should be displayed. If more than one such museum can be organised (in a vast country like India, there
should be many such museums) then each museum should have one set of weapons used by those men of history. In cases where the required number of sets may not be available, photos of the original along with fabricated models should be kept to fill up the gaps.

(XI) Forts: This gallery will contain the replicas and photographs of still existing forts in different parts of the country. Models and charts of different types of forts and fortified cities in India since the pre-historic period can be reconstructed and drawn according to the available records and archaeological findings and can be displayed in this gallery. These models and charts when displayed are sure to arouse interest and inquisitiveness amongst the common visitors, the scholars, the civil engineers and also the architects. Each of these models must be accompanied with short description, blue-print and its history in outline.

(XII) Battle-formations: Models and charts of different battle-formations normally used now and deployed in different operations of historical significance since early days in India will be of great educative value and interest.

Working models showing attacks and defences in different formations are bound to make this gallery popular to all types of visitors.

Besides these, the Vyūhas (battle-formations) described in the Epics, Saṁhitās, Purāṇas, if represented
by models reconstructed from the available descriptions would not only be a perpetual source of interest but might give some insight about the tactical conduct of battles of those by-gone days.

(XIII) Military History: In this gallery important battles and campaigns described in Indian history can be well represented through models, charts and paintings. The educative value of these can not be over-emphasized. Apart from the students of History, those who are interested in Strategy and Tactics would also be immensely benefited from these models, charts, paintings etc.

In addition to these, films of actual battles and other operations may be screened in this section at regular intervals. Films of these nature are available with the government, war-offices and in the archives.

Further, to make this gallery a meaningful centre of educational and research activities, lectures of outstanding soldiers and researchers should be organized at regular intervals. Maps, charts, relief maps and sand-models will also be very helpful to students coming in this gallery.

(XIV) Military Geography: When geography is studied from the military point of view it is called Military Geography. This includes the physical features of the terrain with minor details, methods of communication for military movement, i.e., road, railways, air-routes, water-routes and electrical communication line for telegraphs etc., climatic
peculiarities of a particular place and the human population. People living in urban areas or in developed villages can hardly visualize the difficulties the fighting soldiers have to face in different borders of India. The geographical nature of the various borders of India are widely different. To bring home the actual state of affairs pertaining to the borders of India this gallery would play a vital role. This section will also enable the scientists and technologists to gauge the logistical problems in the borders of India.

This gallery can be well represented with colourful relief models of Indias borders. Side by side, the military geography of neighbouring countries would enable the people of India to understand and appreciate the problems and advantages of those areas.

Here again, the evolutionary section of this gallery would enable the common visitors and the scholars to understand and estimate the military leadership of the outstanding soldiers of India.

It will also enlighten the people about the factors responsible for Indian military power and the nature of geopolitics of India and its neighbouring countries.

(XV) Documents etc.: Photostat copies, microfilms of important military pacts, treaties and arms and instruments of surrender, manuscripts of war diaries and photos of some important military incidents or personnel may be displayed in this gallery. Microfilmed copies of
such documents may also be collected from various sources and preserved in museum of war-materials.

Documents and materials actually used in some noteworthy espionage operations should also find their place in this gallery. This gallery may be less popular to the common people but will be a valuable source of knowledge to the students of military law, International Law, International relations and Political science.

(XVI) Instruments used for communications: In this gallery the visitors will find the various types of small and large machines and materials used by the military engineers and signallers. They are to send messages, and construct roads, bridges etc., to facilitate army movement.

Here different types of radio sets, telephones, telegraphs, and models of different types of small and long bridges etc., could be shown to the visitors. This gallery would become lively if actual demonstrations of different machines and instruments are shown to the visitors. The semaphore communication system used before the invention of telecommunication will be an interesting attraction to the visitors.

(XVII) Billets: Different types of living accommodations, cook-houses, dining-halls, stores, information-cum-recreation rooms etc., of the soldiers during peace time and in field areas, along with their plans for lay-out through charts, diagrams, photos and models with descriptions
can be shown in this gallery.

(XVIII) **Hygiene and sanitation**: The knowledge of personal and public health and hygiene along with healthy surroundings come within the scope of the subject **Hygiene and Sanitation**.

Soldiers while living in barracks or in camps or while on move or in operation areas always obey the orders regarding hygiene and sanitation.

Physical fitness is a must for all the soldiers to remain battle-worthy; at the same time they are to spend the most part of their life in semi-urban areas, jungles, mountains etc., where even the minimum amenities of the urbanized areas are not available. Thus the responsibility of keeping the soldiers fit devolves on themselves. The soldiers discharge their duties in this job like all other duties quite efficiently. The steps usually taken by the soldiers can be exhibited through models, charts and other audio-visual means. This job includes the following:

(a) Personal hygiene which consists in cleanliness of body, skin, teeth, nails, hairs, clothes, drinking and eating utensils and rest of body and mind.
(b) Sanitation regarding dwelling places, cook-houses, dining places and canteen;
(c) Supply of pure and filtered water;
(d) Storage of dry and green foods;
(e) Soakage and refuge pits;
(f) Latrine and urinals;
(g) Anti-malarial precautions and precautions against Cholera, Typhoid, Pox and other important problems of
(h) Precaution against insect bite and irritant flora and fauna contact could also be of general educative value.

(XIX) Medical: In the gallery for medical education, the museum educator can give thorough ideas to the visitors about various first-aid treatments like — use of different kinds of bandages; carrying of injured soldiers by various ways and methods of evacuating the wounded soldiers and casualties from the operational areas; treatment of different kinds of haemorrhage, shock, and fractures; precaution against and treatment for snake bite, bites from venomous insects and rabid animals, frost-bite, heat-stroke, blisters, burns etc.; methods of supplying artificial respiration for asphyxia due to various reasons, with the help of charts, photographs, models and by actual demonstrations. Photos or models of some improvised operation theatres (OTs) in the fields of operation can also be shown to highlight the role of doctors and nurses in war.

(XX) Materials of Psychological warfare: The subject psychology as a branch of military studies has a great importance and it plays a major role in war since time immemorial.

The aim of the psychological war is two-fold — (1) to boost the morale of own soldiers and countrymen, and (2) to brake the same of the enemy. To achieve these, multi-pronged propaganda is launched through news and entertainment
media, cartoon pictures, posters, pamphlets etc. The designs and the effectiveness of these propaganda materials indicate the genius and the psychological traits of the nations on which the propaganda is launched. Some of these publicity materials also become very popular for more than one reason — to quote an example from recent history the 'CHARAMA PATRA' a feature of Bānglādesh Radio (1971) may be referred to.

In this gallery the above mentioned materials, i.e., posters, pamphlets, tapes etc., should be chronologically exhibited. These will make aware the general public of such effective media and will attract the people connected in various capacities with the discipline of public relations and different publicity media, commercial advertising agencies etc. They will derive much benefit from this section.

In addition to the above mentioned galleries, a National Museum of War Materials should have the following galleries too: (a) Personal affects of outstanding soldiers, (b) War-animals, (c) Flora and Fauna available at different seasons in the borders of India and neighbouring countries.

(a) Personal affects of outstanding soldiers: In the foregoing discussions it has been suggested that the weapons, uniforms and other items used by the outstanding soldiers should be kept in the respective sections. It is now being suggested that in addition to those a separate gallery may be organised for each individual outstanding soldier in the manner of biographical museums — where all the
items both military and non-military e.g., books, pens, civil clothes, beds, articles of personal hobby etc., should be preserved to project as idea about the total personality of the great heroes. This is not the duplication, but an essential medium to make an in-depth personality study. It is needless to mention that this gallery will remain attractive to people of all categories.

(b) War-animals: Different kinds of animals are good friends of the soldiers and they are being used in war since pre-historic days. These animals are monkeys, dogs, horses, mules, camels, elephants, crocodiles, iguana etc. In this gallery models or staffed specimens of these animals, their types, duties, amount of load they can carry, distance they can march and many other informations about them and references about their uses in different wars or operations can be presented to the visitors. As for example, Shivaji used to tame and train the iguanas, a kind of big mountain lizard (in Marathi it is called 'Ghorpađ') and send them to climb up the most difficult hill sides or ramparts with a rope round its body. These animals used to drive their nails in convenient places, steadfastly clung and enabled the soldiers to climb up the rope that hung loosely down.

(c) Flora and Fauna: Modern war is a total war. Soldiers are to fight and stay long periods in different natural zones like deserts, forests etc., and occasions may arise when supplies of food and medical aid may be cut-off,
or a soldier may be lost in deep forests. So the knowledge and identification of various kinds of beneficial and harmful botanical and zoological specimens are essential for every soldier, so that they can depend on these flora and fauna for food and medicine in emergency. At the same time our soldiers should know the plants and animals of the neighbouring countries so that they can take care of them. It will not be out of place to mention here that modern 'Commando' soldiers are actually trained to face like situations.

In this gallery, useful animals, edible plants and medicinal plants of different regions of India are preserved and displayed for identification and study, and their mode of uses are explained.

Over and above the galleries mentioned so far, a museum of war materials having educational activities must possess a gallery presenting the war mementos, a gallery on War-Actions, a library and sufficient space for performing museum games.

In the 'War mementos' gallery, original objects captured by Indian soldiers in different operations at various wars should be displayed with a brief account, relating to those objects and the unit or regiment that captured those objects.

In the 'War Action' gallery actual fighting, especially important portions of any operation i.e., live
war may be exhibited with the help of various audio-visual means.

A library is a must for the use of interested students and research scholars. This library need not be a big one but should provide sufficient space, preferably separate cubicles for research scholars. It should be located near the main administrative building and should have separate entrance which can be used when the gallery or museum administrative office is closed. Besides, the books and journals on 'Military Studies', collections of photographs, films, records of lectures of great military heroes and on war musics should be maintained with proper system of cataloguing to facilitate easy reference when required. For playing records and tapes a sound-proof cubicle be provided with; but to project a film the museum auditorium should be used. However, provision of slide-viewer may be made in such library.

If the museum possesses its own photographic laboratory then the catalogue of the negatives must be kept separate from its general collection of photos. This catalogue should provide a space to mount a positive copy of the subject indicating the negative for easy identification by the research scholars asking for an extra copy.

The museum game is a game played within the museum, and meant especially for the children. Different games are held for making the children better acquainted with the
objects displayed in the museum. It is a play-way method of learning.

Museum games are such types of educational activities as based on the idea of interpreting and understanding of the museum objects through interesting question-sheets, puzzles, date-boards, location-boards and similar economically cheap but educationally fruitful devices. There are some simple games, which serve as a recapitulating medium. Sporting games are played on a sheet in which the different portions of a particular object are arranged in an erratic or disjointed manner. The young visitors participating in the game will be encouraged to reconstruct the whole. Similarly, a date-board with a combination of pictures, dates and other relevant datas showing historical events is much helpful for chronological understanding of sequence of events or cultures. Puzzles and blank question sheet require filling in the blank spaces either with words or drawings, also clarify and correct many misconceptions. Sometimes, cut-out models placed in special boxes are supplied to the young visitors and they are asked to reconstruct the specimen as displayed in the museum gallery. In another form of activity they are asked to draw or paint certain objects which correspond to the figures drawn on a chart supplied to them. For instance, a big sheet is supplied to every participant with figures of soldiers of different chronological and ethnological groups. Then the participants are asked to draw in the blank
squares against each figure the particular dress, weapons, etc., corresponding to the figures. This game will result in developing a complete all round intimate knowledge of different historical periods and racial groups; and simultaneously provides the participants with pleasure and endeavour. Likewise, in another sheet the figures of flags of different regiments may be provided and the participating visitors are asked to write down the names of the regiments corresponding the figures.

The museum games are usually used to arouse keen interest among the young visitors of the museum. The games will be such that they will sharpen the visitors’ power of observation, concentration of mind, successful and articulate expression of the objective world. Constant experiments about the museum games should be made and they have to be pragmatically evaluated before being introduced as a popular museum programme. The fundamental advantage of organising the museum games is that it lays stress on derived topics and may be utilised for particular ends in view.

To sum up, the number of galleries, sections and the list of articles to be shown can be made longer and that too can be shown in various ways which depend upon the imagination, experience, interest and the talent of the museum education officer.

The growth and development of museum of war materials in India:

The origin of a museum of war materials in India is
obscure. But, when the historical development of museums in different countries is traced we are amazed to note that the first museum in the world is a notable collection of war materials. Alexander the Great is known to have presented his respected teacher — Aristotle — a good collection of materials that fell into his hands in the course of his conquest. The ancient Romans too took pride in keeping the war trophies they gathered from Greece and Magna Graecia, Asia and Africa. With the Renaissance and the Reformation in the 15th century, the intellectual curiosity burst all bounds. Kings and nobles eagerly paid for excavations to dig out treasures buried deep in the earth.

In India, the Asiatic Society first intended to establish a museum in 1796 A.D., and for this purpose requested its members to present curio goods to the Society. But, due to want of a permanent space and for other unknown reasons the idea of establishing the museum was considered premature. In 1809 A.D., the Society got its permanent house at Park Street, Calcutta. In 1814 A.D., Dr. Nathaniel Wallich, the renowned botanist requested the Society to establish a museum and promised to contribute his own collections and to work as a honorary curator of that museum. At last, to honour the request of Dr. Wallich, in 1814 A.D., the first museum in India was founded by the Asiatic Society in Calcutta. This museum was not a museum of war materials, but there was an archaeological section in it. Though the
actual date of establishment of a museum of war materials in India is not known to us, still it can be said that probably museums of war materials in India were born and reared in the houses of rich men like the kings, nawabs and big zamindars of mid-nineteenth century A.D., but these collections were closed to the public. The owners of these collections feel proud of their collections by showing them to their friends and visiting high dignitaries.

By the close of 19th century large number of Art and Archaeological museums developed throughout India. These museums possess many old arms, weapons and various kinds of war materials of different ages. These objects are acquired either through collection, donation or excavation in different parts of the country. These museums have no educational activities on military studies.

It is only during the mid-twentieth century a few museums of war materials have been established at different military academies in India for instance Khadakwasla, Maharastra or Mhow, M.P., for the purpose of their own students' and cadets' education and these museums are strictly closed to the general public.

After independence of India in 1947 and merger of State Forces with the Indian Armed Forces the private collections of war materials of the ex-kings and nawabs were thrown open to the public and the Indian War Memorial Museum at Red Fort, Delhi was established.
Thus we find that after thirty years of independence, still to-day in India there is not a single National or Regional museum of war materials, in the true sense of the term, for the use and benefit of the general mass of the country. Some of our ancient war materials are displayed in the galleries of archaeological museums; a few stored within the protected place of military academies and regimental centres; some are locked in the houses of ex-kings and big zamindars of India and the rest are still scattered all over the country uncared and unnoticed.

Survey and review of the collections of war materials in different museums in India:

Archaeological Museum — Bijāpur, Mysore

This museum was founded on 19th July, 1912. Its collection consists of antiquities of historical and archaeological interest of India in general and of Bijāpur in particular. The collection comprises sculptures, paintings, coins, inscribed slabs, sanads and farmāns, bidriware, wood-carvings, china-ware, pictures and photographs, manuscripts, maps, arms and armours.

Various types of war materials were found while levelling the ground near the Ārk Quilā or citadel of Bijāpur. War materials of this museum are mainly acquired by excavations, purchase from private parties, treasure trove, donation and exchange of duplicate materials with other museums on
mutual basis. At present there is no printed catalogue
of the objects though in 1928 a catalogue was prepared by
Dr. V.S. Suttankar.

Some of the important and remarkable war materials
of this museum are as follows:

(i) A small mortar cast in gun metal with a calibre
larger in proportion to its length; it is popularly known as
'Kāchchā Bāchchā'.

(ii) A cannon of cast iron with names of twelve
Imāms in Persian script engraved on the plain face of the
muzzle.

(iii) A large cannon measuring 16 feet 3 inches with
a bore of 1′2½″ made by fagoting iron bars together, over
which square section rings were passed and welded together.
The cannon bears the name 'Pānjmani Ādīl Shāh'. This name
is understood to have reference to the quantity of gun-powder
(five maunds) with which it used to be charged and the famous
Sultān of Bijāpur, Ādīl Shāh.

(iv) A double edged sword of about 3 feet 4½ inches
long.

(v) A steel elephant goad of two feet nine inches
length, carved along the whole length of the handle with a
series of texts from the Holy Qurān. On the flat projecting
knife edge is engraved the name of Pādshāhī Shāh-ī-Ālī (Ālī
Ādīlshāh-ī-II).

(vi) An iron helmet with a movable guard for nose
and mouth.
(vii) A coat of mail revitted with iron rings.

Apart from these the museum possesses varieties of swords, arrows, guns, cannon balls which are of great interest regarding the military history of the Ādil Shāhis from 1500 to 1700 A.D.

Maratha History Museum

Deccan College Post-Graduate Research Institute, Pune-6.

This historical museum is concerned mainly with Maratha history and is the legacy of Late Rāi Bāhādur D.B. Parasnis of Sātārā. He collected varied historical materials from different quarters. In 1925 he opened this museum at Sātārā and was known as Parasni’s Museum. This private museum was purchased by the then British Government of Bombay and was transferred to the Deccan College in 1939.

This museum at present possesses a separate Archival section containing important military and historical records of 17th, 18th and 19th centuries. The main bulk of collection of this museum pertains to the period 1720 – 1818 A.D.

In 1958, this museum acquired a good collection of art objects, armoury and coins from the Rājā of Jamkhindī State.

The war materials of this museum can be classified under following heads:

(A) Records in the Archival section—

A good number of Mārāthi papers in this section give exhaustive details of some of the battles connected with the
Marathas, the Nizām and the British in the 18th century. Among them, the Battle of Khardā and the First Anglo-Maratha war are most important and worth mentioning.

The Marathi Rumāls connected with Chatrapati Pratāp Sinha of Sātārā contain military plans with details of different modes of warfare in ancient, medieval and modern India. They are very useful and of great military importance in studying the evolution of the mode of Maratha warfare in the 17th, 18th and 19th centuries.

(B) Military maps and plans

Again in the Archival section there are three military maps and five battle-plans. The first one is a map of Southern India by Assistant Surgeon Lorimer. It shows the military divisions of the Madras Presidency and the places of the out-break of cholera among the native troops from the year 1820 to 1844. The second map shows the disposition of the Bengal Army. The third one is drawn by John Walker but the content is not clear.

The Battle-plans include those of Palāsy (1757), Talegao (1778-79), Khardā (1795), Shriangapāṭam and Waterloo. The battle-plans of Talegāo and Khardā are drawn by the Marathas and they are in Modi script; but the other battle-plans are drawn by the Englishmen. Besides these military maps and plans, there are four paintings. Two of them depicts different views of the battle of Sitārdi at Nagpur in 1817 between the British and the Bhonsles of Nagpur and the other
two represent the views of the battles between the British and Tipu Sultan at Bangalore (1793) and Shrirangapattam (1799).

(C) Pictures — This museum possesses twenty-two very important and rare coloured pictures showing the evolution in the military uniforms of the Indian infantry and cavalry under European powers in India from 1750 to 1900 A.D.

(D) Arms and weapons — The collection from the Raja of Jamkhindi has a sizable armoury consisting of different types of arms and weapons. There are about 72 swords in this collection of 18th and early 19th centuries. Most of them are Maratha swords and the others are French, British and Mughal swords. These swords are of again different varieties like khandas, serpentine swords, swords with straight and curved blades etc. Apart from swords, there are various types of daggers, katyars, guptis, spears, shields, helmets, armours, guns and rifles. These guns and rifles are belonging to the 16th, 17th, 18th and 20th centuries. The total number of these arms and armours will be about one hundred twenty-five.

(E) Stone age implements — The museum has a good collection of tools and implements of various stone ages. The Stone Age room displays comparative materials obtained by exchange from Africa, Australia, America, Europe and Palestine. The main collection of these tools was excavated by the Institute at Gujrat, the Deccan, Karnatak, Andhra and
Kutch Museum Bhuj

The Kutch Museum at Bhuj located in a fine red stone building situated on the bank of Lake Hamirsar, initially formed part of the School of Art established by Maharao Khengarji III in 1877 A.D. It is the oldest museum in Gujarat State.

At the time of Rao Khengarji's marriage in February, 1884 an exhibition of Kutch arts and crafts was organised in which 5697 items were exhibited. Of these, exhibits of Rs 3300/- worth of that time, were handed over to the museum at the termination of the exhibition. These exhibits required the construction of a new building.

Accordingly, on 14th November, 1884, the foundation stone of the present museum building was laid by the then Governor of Bombay, Sir James Fargusson. This building was designed by Mr. McLelland and the cost of construction was Rs 32000/-. Then the museum was named after Mr. Fargusson by the Maharao. Till the independence of India this museum was a private one and only the guests of Maharao were allowed to visit it. The public was shown the museum only on important religious occasions.

After independence, this museum was thrown open to the public and through usage came to be known as Kutch Museum.

This museum is mainly regional and so it is of great interest to tourists who want to know about Kutch. In
other words it serves as a guide to this district.

The exhibits consist of silver-ware, embroideries, enamel-ware, all pertaining to Kutch, special arms peculiar to the region, the minerals of the State, sculptures, coins and various other articles of historical importance relating to Kutch.

This museum is divided into nine sections. The arms and ammunition section displays swords, shields, spears, guptis, daggers, pistols and bayonets and locally made knives. A few of the interesting war materials housed in this museum are as follows:

(i) A brass cannon, bearing inscription in Arabic which says that the cannon belongs to Hyder Ali, which was presented to Kutch Army Commander Jamsādār Fateh Mohammad by Tipu Sultān. This gift was given because Tipu Sultān wanted to fight against East India Company forces and wanted to get support of powerful princes of India. This proves that the Kutch Army was quite powerful as to draw the attention of Tipu Sultān. The cannon was manufactured at Śrīnagarṇaṭaḥ now in Karnataκa and weighs 700 lbs. Its size is about 90 x 33 cms and it was made by Tāṣār Ḥāssān.

(ii) Another cannon dated 1622 and bearing an inscription and an emblem of the Portuguese over it is also of great interest. Its size is 117 x 48 cms. Probably it was brought to Kutch by sea route. There is a legend that a Katchi warrior had shown the sea route to Vasco-de-Gama to India in 1498 A.D.
(iii) Yet another cannon of 100 x 43 cm³ size is also noteworthy. This cannon is bell shaped. Huge hollow balls filled with small pieces of stone, glass and iron used to be fired from this cannon. The balls used to burst into two and its splinters would injure the enemies. Probably this cannon is not made in India. A similar cannon can be seen lying on the ground of the Teen Murti Bhavan in New-Delhi.

(iv) Two in one weapon is a peculiar weapon. This weapon has a dagger over which a passage is provided for cardboard. So, this may be called as a revolver-cum-dagger. It is inscribed as 'Kutch Bhuj' probably meaning that Bhuj had an armament industry just a century ago.

(v) A sword with saw like edge. This is possibly meant to draw out the intestine of the opponent and probably it is made at Bhuj.

(vi) The museum possesses a complete armour made of iron but its origin and history could not be traced.

(vii) Two small machine guns used in First World War are displayed. These are named as Spandau. Probably they are made in Germany and named after that town in West Germany.

(viii) Numerous locally made knives and Chhuras, Jamaiyas are displayed in the arms gallery. The knives and nut-crackers of Kutch are famous even to-day.

(ix) A big bomb dropped by Pakistani air-force during the 1971 war is of special interest. The bomb is of
The National Defence Academy (NDA) at Khadakwasla, Pune was established in 1955. In fact, this academy was shifted at Pune from Dehra Dun to train potential officer cadre for Army, Navy and Air Force, the three Services of the Indian Armed Forces. The NDA is indeed a unique institution of its kind in the world due to its Inter-Service in nature and composition.

The museum is an integral part of the NDA. The scope for study and research in military studies is vast but this museum has not yet been able to collect exhibits covering all aspects of this vast field of knowledge. The museum is still in its infancy and in the process of development. The exhibits collected at present are only representative in many aspects and in certain spheres it still requires exhibits to fill up gaps and new areas. The main aim of this museum is to familiarise the officer cadets with the evolution of Arms and Weapons used in war, and their development to suit the needs of the Indian Armed Forces and at the same time to preserve the military traditions of India for instructional values as well as the inspirational values for the cadets only.

The construction of the museum building was completed by the end of 1957. In the initial stages, there were three model rooms, one for each Service, viz., Army, Navy and
Air Forces. Efforts were made through the three Services headquarters, former Indian Rulers and other institutions to find out ways and means to establish a museum, but unfortunately the museum did not develop in a satisfactory manner due to paucity of suitable exhibits, staff and funds. So, at one stage, the NDA recommended to drop the idea of establishing the museum.

However, in October, 1965, the first recurring Grant of Rs 12000/- was sanctioned for the museum by the Government of India. Subsequently in 1966, a Museum Advisory Board, consisting of three eminent museologists, was constituted by the Ministry of Defence to advise NDA regarding the setting up and expansion of the NDA museum on sound and scientific lines. In September, 1967, a Local Museum Committee was also formed to deal with the maintenance and progress of museum. So far (till August, 1976), both the Committee have met thrice and have laid down the aim and scope of this museum. A comprehensive scheme for the reorganisation and expansion of the NDA museum was drawn by the Local Museum Committee, and the same was subsequently approved by the Museum Advisory Committee in its Second and Third meeting convened on 19/20th October, 1967 and 30th January, 1969, respectively at the NDA. Ultimately the NDA museum has been organised into the following galleries:

(A) NDA Gallery — This gallery aims at depicting the origin and growth of the National Defence Academy through
the media of photographic illustrations and albums pertaining to the multifarious activities of the institution, besides displaying gifts, presentations and models of the various NDA buildings.

(B) Services gallery — This gallery is devoted to the Indian Navy and Air Forces and aims at depicting the history and development of these two wings of the Indian Armed Forces.

(C) Arms gallery — This gallery depicts the chronological evolution of arms and weapons through the ages, with special reference to our country. This gallery possesses arms and weapons starting from the Stone Age up to the early 19th century East India Company weapons and has a separate section pertaining to the Rifle and Pistols of First World War, Second World War and tribal weapons, beside Naga weapons. Further, these arms and weapons have been supplemented by suitable maps, charts, battle-plans, photographs and a dioramised scene of the Stone Age.

(D) Army gallery — The Army gallery has been planned and is being developed on the following pattern:

(i) Medals, Badges, Ribbons and Decorations of Status of the Indian Army including that of the Native State Forces.

(ii) Statuettes and dress/uniforms of soldiers through the ages.

(iii) Busts or photographs of the prominent War Heroes since World War II with special emphasis on the
roll of Honour of ex-NDA cadets.

(iv) History of the various Regiments of the Indian Army and their Regimental Colours.

(v) Models of tanks, armoured cars, armoured personnel and other army equipment since World War II.

(vi) Exhibits connected with the gradual development of small arms and other infantry weapons.

(vii) Gradual development of Machine-guns, Revolvers and Rifles from the 19th century to World War II.

(viii) Weapons captured by Indian soldiers in different operations.

(ix) Badges of Ranks of the Indian Army.

The following are some of the interesting and important exhibits of military significance possessed by the National Defence Academy Museum:

(1) Weapons and implements of the Stone Age, Copper Age and photographs of weapons and dresses used by the soldiers of the Gupta period in India.

(2) Swords, Daggers, Shields, Maces, Khandas, Guptis, Fire-arms associated with Rajput, Mushal and Maratha periods of Indian history. A few bows and arrows belonging to Rajput period are also displayed.

(3) Rifles, Guns, Bayonets, Cannons, Pistols, Light Machine-guns, Bombs of the 19th century belonging to Hyderabad State and British India during First and Second World War, and of Japanese, Italian, German, Belgian, Iranian, American and Spanish origins.
(4) Service Medals, Decorations, Badges and Ribbons since 1842 onwards including Imperial and Indian Badges and Ribbons of Post Independence India.

(5) A few Regimental Colours are on display, such as Deccan Infantry, Brāhmīṇa, Punjābis and Mārāṭhās.

(6) Nine busts of Victoria Cross holders of Pre-Independence period.

(7) 157 photographs of Param Vir Chakra (PVC), Mahāvir Chakra (MVC), and Vir Chakra (VC) holders of Indian Armed Forces.


(9) Models of Aircrafts, Ships, Tanks and other equipments used by Indian Armed Forces.

(10) Some captured weapons and a Patton Tank of 1965 Indo-Pāk war.

(11) Portraits of prominent Rājput, Mughal and many other Indian Rulers.

(12) A few battle scenes, viz., Haldighātī, Fall of Chittorgarh, siege of Golkūndā and Udaipur, Fall of Śrīrāṅga- paṭīn and Battle of Talikota.

(13) Original Ghat, Toofāni and Mystere aircrafts are on display.

(14) A few Regimental uniforms of British period.

(15) Armour of Rājput, Mughal and British period.
(16) Tribal weapons mainly consisting of Bows and arrows, Dāos, Balasimhas of various types associated with Khāsis, Bāstārs and Nāgā tribes.


The Mahārājā Sawai Mān Singh II Museum, Jaipur

The most important landmark in the historic city of Jaipur is the Chandra Mohal. This was the residence of the Mahārājā of Jaipur State for more than 200 years. This Chandra Mohal consists of Pothikhānā and the Silehkhānā. Amidst the Royal palace quarters lies the palace museum. It was long shut off from the common museum goers and was not very well known even to the residents of Jaipur, the Pink City of India. The Mahārājās loved to show their proud possessions and interesting collections to friends and visiting dignitaries.

This private museum was reconstituted and converted into a public museum in 1959 under a Trust, now known as the Mahārājā Sawai Mān Singh II Museum Trust. This private museum in the City Palace is now called as The Mahārājā Swāi Man Singh II Museum after the name of its founder. The museum consists of three main galleries: The Textile and Costume gallery, The Arms and Weapons gallery and the Art gallery.

The Arms and Weapons gallery — The Silehkhānā of the museum is situated on the south of Pritam Nivās. It contains one of the largest and finest collections of edged
The galleries of the museum contain some of the important and noteworthy exhibits of this gallery are as follows:

(a) Swords — Single edged curved Persian "Unnas", slightly curved Mughal Shamshers and Talwârs and double-edged Khandas. There are two swords — a Talwâr and a Khanda — inscribed with the name of emperor Shâh Jâhân and a few with the names of Persian Emperors and Mughal Generals and many swords of Maharâjâ Râm Singh and Maidho Singh II. Swords of European type and workmanship received as presents from the Viceroy in the 19th century and some exotic types including the huge broad sword used by Râjâ Mân Singh — I are displayed in this gallery.

(b) Shields — Shields made of tough crocodile hide or rhinoceros, antler and buffalo hide embossed, lacquered or painted and set with bosses of chiselled steel gilt or set with gem stones are really good collections.

(c) Other weapons — Among other weapons mention may be made of numerous pointed Guptis, broad Jamdârs, curved Janâhâks, long and narrow Kâtârs, hiltless Jhambwâs and Chhuris, Lances, Axes, Knives, Ankusas, and arrows of various shapes and sizes. The handles and scabbards of some of the weapons provide the visitors with some idea about the finest Mughal and Jaipuri gold, enamel or jewellery works as many of these are delicately engraved, enamelled or chiselled and set with diamonds, rubies, emeralds and pearls. The knives have hilts of ivory, walrus ivory, silver, gold,
crystal, jade etc., carved in the form of heads of ram, horse, elephant, nilgau etc.

(d) Gun-powder flasks — This museum has a fine collection of beautiful gun-powder flasks made of horn, leather and sea-shell, inlaid with delicately carved ivory on mother of perl or decorated with emboidered motifs.

(e) Firearms — A good number of Pistols, Matchlocks and Handguns of different sizes with inlaid or chiselled stocks and barrels preserved in this museum are also equally interesting and important for study.

Among other war materials mention may be made about a few open Howdâhs used by the Maharâjâs while moving on elephants' back and a few uniforms of the members of the Royal family.

Assam State Museum, Gauhâti

It was on the 7th April, 1912, a Research Society named Kâmarupa Anusandhan Samiti or Assam Research Society was established at Gauhâti, to carry on research in matters relating to history and archaeology. Due to the devotion and untiring efforts of some selfless workers, the society made a rapid progress in collecting historical and archaeological objects within a short time and formed the nucleus of a museum. These collections were transferred to the new building of the Assam State Museum of which Rai Bahadur K.L.Barash, C.I.E., an eminent historian was the founder.
president. This museum is thus the offspring of the Kāmarupa Anusandhān Samiti. The museum was formally inaugurated on 21st April, 1940 by Sir Robert Neil Reid, the then Governor of Assam, and in March, 1953 it was taken over by the Government.

This museum has a good collection of war materials belonging particularly to the late medieval and the British periods in India. Most interesting objects of the Arms gallery are as follows:

(a) War materials of late medieval period —

In the gallery various types of swords, shields, armour and guns are displayed. Typical swords of Ahom kings called Hengdan are objects to note here.

(b) Cannons of Ahom period —

Twenty-six iron and brass cannons, inscribed either with Assamese or Persian scripts are displayed on the porch and in the Arms gallery. On these cannons are generally inscribed the names of the maker, the date in Saka or Hijri and a short account of wars of the Ahom kings with the Mughals. It is reported that some deciphered inscribed cannons have references in the reports of E.A. Sait and Late Hem Chandra Goswami. A good number of iron and stone cannon balls are also on display.

(c) Japanese weapons of World War II —

Here in this museum there are several bombs, Bren-guns, Sten-guns, Hand-guns and bullets displayed for the visitors. A diving outfit of Japanese origin is of special
interest in this section.

(d) Tribal weapons —

The Nāgā and Kuki Dāos of various types and Nāgā spears collected from different parts of Nāgā Hill region by Dr. J.H. Hutton are the interesting war materials used by the tribal people of this area and are displayed in this section. A rhino-hide shield of over 215 years old of the Thadde Kuki tribe of Manipur is of special interest.

(e) Musical instrument — The most interesting war musical instrument in this museum is a long copper bugle, locally known as Bheri, collected from Darang district of Assam.

Central Museum, Nagpur

On 27th October, 1862, a committee was formed by the then Chief Commissioner at Nagpur, Sir Richard Temple. The main purpose of the committee was to consider a plan for establishing a museum and public library. In the beginning the museum occupied only a wing of the Museum Library and a public room. As the collection increased the entire building was made available for the museum.

The collections of the museum are mainly provincial, though specimens obtained from other States in India are also displayed. The museum mainly deals with Art and Industry, Archaeology, Ethnology, Economic products, Geology and Natural History.

The war materials mostly belong to both Ethnological
and Archaeological galleries, which are used by the abori­
ginals of the State and confiscated by the State Government. 
This museum is not at all organised. Regarding the collec­
tion of war materials the Curator writes, "To start with 
there was no specific plan or programme for collection of 
objects of this type (war materials). Actually this should 
be described as a collection just for the shake of collec­
tion. The result is that collection at present in this 
Museum is just an incomplete collection. Many weapons are 
et to be acquired. For this no cronological order can be 
arranged as at present." (Curator’s letter No.CMM/1012/vii, 
dated 13th Sept., 1976)

However in the section named 'Marvellous and Rare' 
one will find varieties of Swords, Daggers, Knives, Lances, 
Spears, Battle-axes, Farshis, Bows and arrows, Helmets, 
Chain-shirts, Breast-plates (locally known as Chilkhat) made 
of brass and steel, Shields of different shapes and materials, 
Pistols, Guns and Rifles. Most of these materials are of 
common types having no particular interest. The only exhibit 
that creates a little interest is called as 'Weapon of War'. 
As reported it is made of the bony parts of fishes, and used 
by a tribal king as a symbolic weapon of war.

Dr.Bhaudaji Lad Museum. Bombay

On 30th March, 1973, the Municipal Corporation of 
Greater Bombay resolved to rename the museum so long named
The museum at present is a two-storeyed building and is of general nature having twelve sections, viz. Agriculture and Village Life (Ground-floor East), Armoury (near the entrance of the building and first-floor South), Cottage Industries (ground-floor and first-floor, West), Ethnology (first-floor, East), Fine Arts (ground-floor and first-floor, West and South-West rooms), Fossils (first-floor, East, near railings), Indian Coins (first-floor, West, near railings), Minerals (first-floor, East, near railings), Miscellaneous collection (ground-floor, first-floor and near the building), Pre-history and Geology (first-floor, near railings), Religion and Mythology (first-floor, South).

Though the museum has a separate section (Sec.II) for the war materials but the details as regard the origin and development of these collection are not recorded. However, it is learnt that majority of the specimens are supplied by the Mahārājā of Baroda and the War Trophies of the first World War are supplied by the Government of India in the year 1924 and 1973.

Among varieties of war materials, the following objects of this museum are important and interesting from museological point of view:

(1) The models of Indian Cavalry and soldiers of other regiments during the British period along with uniforms and weapons used by them.
(ii) The show-case for Historical figures gives the details of dresses and arms pertaining to the Marathi and Mughal periods.

(iii) A suit of amour weighing about 19 Kgs fitted on the model of a Rajput warrior of 19th century is worth seeing.

(iv) The model of a German Destroyer of 1916.


(vi) War medals from 1799 to 1918 A.D.

(vii) A Dutch cannon of brass found at Kurkhumb in Pune district bearing the date 1640 A.D. and the name of Shri Udaji Powar.

(viii) Another big cannon found near Chandanwadi.

(ix) The steering wheel of a Turkish gun-boat.

(x) Relief map of old Bombay (Heptanesia) showing seven islands ceded to the king of England in the year 1662 A.D. by the king of Portugal.

(xi) Models of Dredgers named Kuphus, Pholas and Teredo, the barge Mudlark and the tug Princess.

(xii) Model of the yacht named Subeni built by Nawab of Janjira.

(xiii) Model of S.S. Siam.

(xiv) Models of boats, the native crafts of Bombay harbour.
The Government Museum, Pudukkottai was established and thrown open for the public in the year 1910, by the then Tondaiman Rulers of erstwhile Pudukkottai State. This is a multipurpose regional museum, comprising of various sections like — Arts and Industry, Archaeology, Epigraphy, Numismatics, Anthropology, Economic Botany, and Natural History.

The collection of war materials of this museum is though not very rich but still the Arms and Armour gallery exhibits some objects, among various other specimens, which are very important and at the same time interesting from museological viewpoint. They are as follows:

(a) Swords — There are in all 23 swords of different shapes and sizes and all belong to 18th century A.D. Among these swords, a sword-cane, two rapiers used as thrusting weapon and a pair of Surul Kathi are worth-mentioning. The rapier is long narrow sword and the Surul Kathi is a coiled sword. The blade of Surul Kathi is kept coiled like a watch-spring and is really interesting to look at.

(b) Daggers — The daggers with short butts and straight blades are referred to here as Jametads. Some Bangalore Jametads have inscriptions in Telegu and they all belong to 18th century A.D.
(c) Bichuvās — The daggers with curved blades are called here as Bichuvās. The handles of these Bichuvās are either made of bone or ivory.

(d) Battle-axes — Among the Battle-axes a crescent shaped battle-axe draws the attention of the visitors much.

(e) Spears — The museum possesses total 22 spears. Typologically they all belong to c.17/18th century A.D. The blades of these spears are of different shape and size. They are all finely and artistically worked. The blades of two spears are curved and they are used in hunting wild-boars. Five other spears have got bolt like projections, one on each side below the blades. The collection of these spears have come from the Pudukkottai Palace Armoury.

(f) Goad — In the collection the museum has only one goad, the sharp pointed instrument used for controlling and diving beasts like elephants. This goad is an interesting exhibit of this museum because it has two blades, one straight and the other curved to a side and the handle is beautifully decorated with glass pieces.

(g) Magudu — There are only two pairs of Magudus displayed in the gallery. This is an interesting weapon made of two horns of antelope, mounted together side by side and their points are in opposite directions.

(h) Bayonets — There are a few bayonets that can be fixed by their handles to maskets. This collection includes
a Japanese and an Italian bayonet and all these are presented by the Ordnance Department, Allahabad.

(i) Military locks — A small group of exhibits that illustrate iron locks of letter-lock pattern and their parts are very interesting to the visitors. These locks were used by the armed forces at Thirumayam Fort (Puţukkottăi) during the 80s of 17th century (c.1687 A.D.)

(j) Boomerangs — Boomerangs, both returning and non-returning types are displayed in this museum. These weapons were used even in the recent past by the Kallars, Maravars and Valayars of Trichirăppalli, Mădūrăy Puđukkottăi and Rămnăd districts. These were made of iron or hand grained wood. Single specimen of wooden returning boomerang of Aurstalian origin is also exhibited here. Some of the boomerangs are found along with other iron implements that were excavated from the Megalithic burial sites of Puţukkottăi and the rest are collected from the armoury in the old palace at Puţukkottăi.

(k) Armours — A pair of gauntlets. These are meant for the protection of arms and used as gloves. The gauntlets are made of steel and decorated with koft-work of floral designs damascened in silver.

There are two wooden manikins clothed in mail armour (chain-dress). This armour is to protect a swordsman in by-gone days from head to ankle region.
A leather shield is also on display in this museum.

The helmets in this museum present an interesting range of exhibits. There are chain helmets and steel helmets. Among the steel helmets, the Javanese helmet depicts brass decorations consisting of lion's head and creepers on the sides. At the front lies the emblem or the crest of the warrior. A plume at the top of the helmet gives a resemblance of a Greek design in brass. From the top edge of this plume hangs a rose coloured fez. On the whole the helmet appears to belong to a warring monarch who does not enter into the thick of fray, but only puts on a grand show to inspire confidence in his men. Other helmets to mention are the funnel shaped Chinese helmet, the German helmets of 1914-18 A.D., and the East India Company helmets of 17/18th centuries.

(1) Bows and arrows — Various types of Bows and Arrows of 18th century are good collection of this museum.

(m) Stone-sling — It is an instrument for throwing stones and consists of a small cup-like closely woven rope-net with two long ropes attached to it one on each side. The net and ropes are prepared from the fibres of hemp or cotton thread. The rope from one side of the net has a noose and that from the other side a knot at ends. The noose is held by the thumb and the end of the rope is firmly held by the hand. A spherical stone is placed in the net and the sling is whirled round and round in the air with great
force. Finally, a jerk is given and the stone darts straight towards the target with a tremendous force and whistling sound. Experts can hit the target with this stone from a distance more than 100 yards. This instrument was once the chief weapon of Kallars and Maravars, the two Ethnic castes of Tamil Nadu in the past, but its use at present is fast disappearing. It was also used in the battles of 18th century in India.

(n) Fire-arms — Among the fire-arms following are worth-mentioning:

(1) Ten cannons and cannon-balls (both exploded and unused) are displayed.

(2) Eleven different types of guns, both breach-loading and muzzle loading, are also exhibited. Among them a gun in the shape of a walking stick and a flint musket are interesting from museological standpoint. These guns are all of 17th century A.D.

(3) Muzzle-loading and flint locking types of pistols are also interesting objects. One of the flint-locking type pistol has a bayonet fixed to it, which is a rare exhibit.

(o) Besides all these, models of aircrafts and tanks used in the Second World War exhibited in this museum draw the attention of the visitors.
The Hyderabad State Museum was established in 1950 A.D. (1349 H.) by H.E.H. the Nizam. The principal collections of this museum are Sculptures, Inscriptions, Coins, Indian Miniatures, Copies of Ajantā paintings, Bidri-ware, Metal-ware, Old China-ware, Pre-historic antiquities, Arms and armours, Textiles, Arabic and Persian manuscripts, Modern Arts and Miscellaneous.

As regards the collection of Arms and armours the museum is highly remarkable both for its high quality and huge quantity. Besides the selected objects displayed in the galleries a large number of war materials are stored at three places. The main storage of arms and fire-arms lies within the museum building itself. A good number of swords and daggers are stored in the office building of the Department of Archaeology and Museum, Government of Andhra Pradesh, Hyderabad. The third store, consisting of bows, arrows, swords, armours, broken parts of guns and many miscellaneous objects, is in a building, known as 'Shāmsheer Kothā', which was probably meant for the storage of war materials during the Kutubshāhi period.

The collection mainly represents the arms of the Deccan, but no doubt, the war materials of the other parts of India and also the foreign countries, viz., Persian, Nepalese, Dutch, French and English objects are also on display. The weapons of Deccani origin must have been
manufactured in the famous arms-producing centres, like Vizianagaram, Seringapatam, Jagdopur, Hyderabad and Warangal. Close examination of these swords will reveal that it was customary during the medieval period to import sword-blades from Persia and other European countries and get them mounted with the Indian hilts in the local workshops. So, we find a large number of swords and daggers in the museum are provided with imported blades but the hilts and its craftsmanship of those exhibits are typically Indian.

The collection of each category of war material is represented through numerous varieties which will provide us with some idea on innumerable traits and forms which the arsenals in Southern India had evolved.

There are a large variety of arms of the late medieval period which in fact stood for the hunting, pastime as well as the different religious ceremonies and as gifts in official functions or the Durbars.

The important war materials having museological interests displayed in this museum are enumerated below:

(1) Bows and Arrows — Among the bows displayed two are made of steel and the rest are wooden. Steel bows are with recurved ends and a few wooden bows are polished and painted with human figures and floral patterns. One wooden bow is 125 cm in length and the rest are between 60-65 cm.

There are more than 370 arrows collected in twelve
lots. Some of these arrows possess steel arrow heads of various shape and size.

(2) Swords — The museum collected different types of swords having different names, such as, Teghā, Sailabā, Pātā, Khanda, Kirāch etc. These swords are mostly of 17th, 18th and 19th centuries and their total number is more than 170. The only Sailabā of late 19th century A.D. (1294 H.), in the museum shows chiselled workmanship on the hilt and the blade is watered and bears inscriptions from the Qurān. As mentioned earlier, most of the hilts are fixed later. All the swords of the collection are important and interesting from museological and historical point of views for their nature, shape, artistic works and legends associated with them. In some cases the name of the makers are also inscribed. Some of these swords are briefly described below:

(a) Curved swords — (i) A curved sword with Indo-Muslim hilt bearing Koftgari in gold. Its blade is watered and incised with the Royal insignia of parasol and cartouches bearing inscription of date 1017 H. and the name of Bādshāh Jahāngir. The hilt is latter than the blade. The length of the hilt is 18 cm. and that of the blade is 84 cm. (Museum No.1774).

(ii) A curved sword with the hilt having saucer shaped pommol, grip and guards. The floral pattern in koft-workmanship is on the hilt. The blade is watered
and chiselled at the root. The maker's name is mentioned as Āsād of Ispāhān. The measurement is same as above (Museum No.2590).

(iii) A curved sword with pistol-shaped hilt having ivory plates on both sides. The blade is grooved in the centre. The maker's name is given as Mohammad Yousuf Misri. The measurement of the hilt is 15 cm, and that of the blade is 81 cm. (Museum No.4041).

(iv) A curved sword, Zulf-i-Khār, with enamelled hilt and the blade dented and forked at the apical portion. The mystic symbol 'Bedouh' is on the blade and the maker's name Āmalā Mohammad Misiri is curved on the blade. The measurement of the hilt is 18 cm, and that of the blade is 86 cm. (Museum No.9794).

(v) A curved sabre with pistol-shaped hilt covered with ivory plates. The hilt has long straight quillons and ecusson which is lozenge shaped. The blade is crescent shaped and watered. The scabbard has 'Bādāmchā' and 'Kothī' made of steel. The hilt measures 18 cm and the blade is 82 cm, long (museum No.1768).

(vi) A curved sword with hilt having saucer-shaped pommel, rolled grip and knuckle guard. The hilt is carved with figures of Hindu gods and goddesses and Sanskrit álokas in gold. The blade is made of fine steel and the 'Bedouh' is carved on the blade. The maker's name Āmalā Mohammad Misri is also inscribed. The hilt measures 19 cm, and the
blade is 76 cm. (Museum No. P260).

(vii) A curved sword with hilt having creeper designs in gold inlay. The knuckle guard is shaped as peacock. The blade exhibits fine chiselling with figures of animals. The measurement of the hilt is 19 cm., and that of the blade is 64 cm. (Museum No.1788).

(viii) A curved sword, Zulf-i-Khār with the basket hilt and spike. The blade is dented and forked. The measurement of the blade is 61 cm., and that of the hilt is 20 cm. (Museum No.1222).

(ix) A curved sword with pistol shaped hilt of steel with ivory plates. The blade is chiselled with floral designs on the upper edge and having inscription of the owner's name, Sirājuddaulā Bāhādur. The blade measures 80 cm. and the hilt is 16 cm. (Museum No.1286).

(x) A curved sword with hilt decorated with red and green enamel and studded with flat diamonds. The inscription gives the owner's name as Nīsām, the ruler of Hyderabad State. The measurement of the hilt is 23 cm., and that of the blade is 76 cm. (Museum No.9760).

(b) Teghā — (1) A Teghā with steel hilt consisting of broad saucer shaped pommel, rolled grip and knuckle guard. The blade is grooved and wider at the tip. Seating on the upper edge of the blade is improvised with a view to strengthen the blade. The measurement of the hilt is 19 cm., and the blade is 67 cm. long (Museum No.1221).
(ii) The Teghā bearing the inscription in Arabic in praise of God, the name of the owner, Nizāmuddaulā Bahādur and the date 1220 H. The hilt measures 19 cm., and the blade is 81 cm. long (Museum No.1225).

(c) Sailabā — (i) A Sailabā with hilt decorated with floral designs in gold. The root of this forward-curved blade is also decorated with gold inlay. The blade is inscribed with Qurānic verses and bears the date 1028 H.

Measurements: Hilt - 19 cm., Blade - 65 cm. (Museum No.2563).

(ii) A Sailabā with Indo-Muslim hilt which has chiselled workmanship. The blade, watered, has inscriptions in Arabic all along the upper edge. The blade is decked with gold inlay at the root. Qurānic verses are also inscribed on the blade. Measurement: Hilt - 19 cm., Blade - 69 cm. (Museum No.3953).

(iii) Sailabā, a special sword of Hyderabad with forward-curved blade and inscriptions all over the blade. The blade bears the name Sāheb Āli and the date 1194 H.

Measurements: Hilt - 17 cm., Blade - 65 cm. (Museum No.1686).

(d) Pāṭā — (i) A Pāṭā with gauntlet hilt is carved with figures of birds and floral designs. The blade is straight, tapering and double edged. It is inscribed with Qurānic verses and the parasol insignia in gold. The hilt measures 35 cm., and the blade is 99 cm. (Museum No.7019).

(ii) A Pāṭā with gauntlet hilt which is inlaid with gold and has velvet padding inside. The blade is long,
double edged and pointed at the end. It has seating arrangement too. Measurement: Hilt - 31 cm, Blade - 97 cm. (Museum No. 235).

(e) Khanda — (i) A Khanda with basket hilt with Picasso work at the base of the blade. The blade is grooved and bears inscription in gold. The owner's name inscribed as Chin-Klich Khan Bahadur dated 1116 H. Measurements: Hilt - 18 cm, Blade - 103 cm. (Museum No. 1737).

(ii) A Khanda with basket hilt. The hilt and the reinforcement are decorated with gold inlay. The hilt has a spike above and velvet padding inside. The blade is straight and tongue-shaped. Measurements: Hilt - 21 cm, Blade - 84 cm. (Museum No. P299).

(iii) A Khanda with ordinary Indo-Muslim hilt and the straight spoon shaped blade. The blade is improvised with the seating to the half of its length. The blade is 80 cm long and the hilt is 18 cm. (Museum No. 1776).

(iv) A Khanda with hilt having bulb-shaped pommel, rolled grip and straight quillons. The blade has fine damascening work and bears inscriptions in cartouches. The royal insignia and crescent in gold are represented on the blade. The inscription gives the name of the Mughal Emperor, 'Shāhjehān'. The hilt measures 16 cm and the blade is 78 cm. (Museum No. P 762).

(v) A straight sword, Dha, with the hilt having crown-shaped pommel and pierced workmanship. The blade is
straight and edged on one side only. An inscription in Devnagri reads, 'Gyadi Samadup Danadyu'. The measurement of the blade is 68 cm., and that of the hilt is 16 cm. (Museum No. P 4560/A).


(3) Daggers: The daggers displayed in this museum are of various shapes, sizes and designs. According to the nature of the weapons, they are called by different names, such as, Katar, Pesh-kabz, Qumâ, Jambiâ, Khanjara, Chhurâ, Gâqu, Bânk, Kukari, Bichhavâ and Mâru. Some of them are described below.

(a) Kâtâr — This is a kind of dagger with 'H' shaped handle and fluted blade. The museum possesses 108 Katars.

(i) A Kâtâr with forked blade and the hilt is 'H' shaped. The blade is grooved in the centre and chiselled at the root. The date is inscribed on the blade as 912 H. Measurement: Hilt—19 cm., Blade—19 cm. (Museum No. 3954).
(ii) A Katar with fluted blade and waved edges and chiselling in praise of God. Inscriptions invoking God for blessings, the name of the owner 'Mohammad Sāh' and the date 1013 H., are seen on the body. Measurement: Hilt- 26 cm., and the blade- 27 cm. (Museum No. 2348).

(iii) A Katar on the hilt of which the names of God are chiselled and the owner's name is inscribed as 'Āminuddin Āli'. Measurement: Hilt- 21 cm., Blade- 33 cm. (Museum No. 3581).


(b) Peshkabz — It is a dagger with pointed, one edged blade with thick back. The museum got 31 Peshkabas.

(i) A Peshkabz with hilt pistol-shaped and chiselled. The pointed one edged and the broad blade has straight back to which the edge gradually slopes. The date is inscribed as 773 II., on the blade. Measurement: Hilt- 13 cm., Blade- 48 cm. (Museum No. P3896).

(ii) A Peshkabz with hilt of Jade is encrusted with eight red stones. The blade is watered and inlaid with gold. Measurement: Hilt- 15 cm., Blade- 33 cm. (Museum No. 1762).

(c) Qumā — It is a kind of hunting knife with double-edged sloping blade. The museum got about 18 Qumas.

(i) A Qumā with hilt of horn and the blade is finely watered, double-edged and tapering to the point. The inscription on the blade gives the name of the manufacturing place 'Daghistan' and the date 1004 H. Measurement: Hilt-11 cm, Blade- 36 cm. (Museum No. 8961)

(ii) Another Qumā with horn hilt and blade with deep channel down the centre and gradually tapering to the lower end and gold inlay at the tip of the blade. Inscriptions in cartouches carved on the blade gives the name of the maker, Æmale Hussain and the place of manufacture, Daghistan. Measurement: Hilt- 14 cm, Blade- 31 cm. (Museum No.1533).

(d) Jambīa — It is a dagger with curved blade having mid-rib. The museum possesses more than 25 Jambīas.

(i) A Jambīa having 12 cm, hilt chiselled with scenes of Sikārgarh. The 20 cm, blade is curved and inscribed. The inscription reads 'Ṣāḥ Ālī Bādshāh' (Museum No. 1213).

(ii) Another Jambīa, hilt covered with ivory plates and the blade chiselled at the root with inscription of the name 'Hyder Sāheb'. Its hilt is 12 cm, long and the blade is 24 cm. (Museum No. 1155).

(iii) A similar Jambīa with hilt chiselled with floral pattern and the blade ribbed and inscribed in cartouches.
Inscription gives the date 'Rajab 1202 H*'. The length of the hilt is 12 cm., and that of the blade is 22 cm. (Museum No.2512).

(e) Khanjarā — It is a kind of dagger. Its blade may be curved or doubly curved. The museum possesses about 50 Khanjarās and some of them are really interesting.

(i) A Khanjarā with parrot-shaped hilt and chiselled to show birds and floral patterns. The blade is watered and inscribed in praise of God. Its blade is 45 cm., long and the hilt is 15 cm. (Museum No.1170).

(ii) Another important Khanjarā with jade-hilt encrusted with precious stones. Its blade is pierced, watered and inscribed with Persian couplets. Its blade measures 20 cm., and the hilt is only 12 cm. (Museum No. 9759).

(iii) The Khanjarā with metal hilt chiselled and inscribed. The blade is curved. The inscription shows the owner's name 'Haider'. The hilt measures 11 cm., and the blade is 21 cm., long (Museum No.P2375).

(iv) This Khanjarā's hilt is covered with ivory plate and the blade is doubly curved. Its measurement is same as above (Museum No.1565).

(v) This is a simple Khanjarā but its hilt is made of fish-bone which measures 12 cm. Its blade is about 23 cm. (Museum No.4010).

(f) Chhurā — It is a bigger knife with sharp cutting edge. The museum got 18 Chhurās. The important varieties are—
The Chhura with pistol-shaped hilt and covered with ivory plates. Its blade is fine damasc with broad straight back. The cutting edge slopes gradually towards the back. The length of the blade is 55 cm., and that of the hilt is 12 cm. (Museum No. 1220).

This Chhura's hilt is carved and seems heavier. The blade is chiselled at the root and measures 56 cm., and the hilt is only 14 cm., long (Museum No. 8894).

The hilt of this Chhura is made of fish-bone and the blade is inlaid with gold. The blade measures 35 cm. and the hilt is 15 cm. long (Museum No. 3513).

Caqu — Caqus are ordinary knives. The museum possesses 32 Caqus. The hilt of these Caqus are mostly made of ivory, horn, agate, jade or iron. A few of them are described below:

The handle of this Caqu is of jade and shaped like a goat's head and provided with silver bands. The blade is watered and measures only 12 cm. The hilt is only 9 cm. (Museum No. 1630).

This Caqu's hilt is of ivory plates. The blade has Jeuhar (the inherent quality of steel which comes out after even heating and burnishing) on one side and the other side is plain. The blade measures 24 cm., and the hilt is only 10 cm. (Museum No. 8998).

Its blade is watered and inscribed. The inscription reads the name 'Maulvi Muhammad Abdul Zabbar Khan.
Asafíñ Nizanây, and the date 1331 H. The hilt is covered with ivory plates. The hilt is only 11 cm., in length and the blade measures double the hilt (Museum No.1647).

(h) Bânk — It is the dagger with crescent-shaped curved blade. In the museum only two Bânts are displayed. The hilt of the first one is of ivory with knuckle guard and measures 10 cm. Its blade is 13 cm., long. The measurement of the second one is 27 cm., including 16 cm., blade. The blade of both the Bânts are recurved (Museum No.2422,1172).

(i) Kukri — A Nepali dagger is known as Kukri. In this museum there are only three Kukris and all are interesting specimens.

The first one possesses hilt made of agate and mother of pearls. The hilt measures 11 cm., and the blade is 23 cm., long. The second one possesses hilt with knuckle guard. Its blade is forward curved and inlaid with hunting scene. The blade measures 36 cm., and the hilt is about 15 cm. The third Kukri is a simple one with 41 cm., long forward-curved blade. Its hilt is 12 cm. (Museum No.2254,1333,427).

(j) Bichhawā — It is a small double-edged dagger that can be concealed in the sleeves. The only Bichhawā in the museum is peculiar due to its 20 cm., long forked blade and 19 cm. hilt. (Museum No.4051)

(k) Māru — The Māru that this museum possesses has two pronged blade on either side and handle in the middle. Its total length is 69 cm., and the quillons are downward. (Museum No.439).
(4) Paraśu — It is a kind of battle-axe. The museum possesses five Parasus of which the following two are worth mentioning.

(i) The blade and the handle of the first one are made of steel. The blade is pierced and the handle possesses a Gupti inside. Its total length is 68 cm., and it is inscribed. The inscription reads 'Rustam-i-Deuran'. (Museum No. 2528)

(ii) The second one is a double-faced battle-axe with a disc above. The cutting edges of both the blades are crescent shaped. Its total length is 88 cm. (Museum No. 434).

(5) Tabar — It is also a kind of axe. Among the five Tabars in this museum the following two are interesting to note.

(i) The first Tabar is with blade pierced and a spike attached above it. The steel handle contains a Gupti concealed inside. Its total length is 52 cm. (Museum No. 435)

(ii) The handle of the second Tabar also contains a Gupti inside and the blade is inlaid with silver in floral pattern. Its length is 57 cm. (Museum No. 4022)

(6) Gurz or Gurgaz — Both are maces. The Gurz possesses steel gobular head while the Gurgaz has six or eight bladed steel head. The two Gurzs in the museum are made of steel and their total length is 58 cm., and 65 cm., respectively.
The only Gurgaz in the museum possesses basket hilt with spike and multibladed head. Its length is 78 cm. (Museum No. 442, 430, P894)

(7) Jaghnal — It is a kind of axe with crow-bill type blade. The museum possesses only two Jaghnals. The blades of both of them are crow-bill type and their lengths are 70 cm. and 71 cm., respectively. The handle of the larger one has a Gupti inside. (Museum No. 437, 4040)

(8) Ankuś — It is the Goad to control and drive animals like elephants. The interesting specimen of the Goad in this museum possesses a pistol attached to its handle. The length of this AnkuŚ is 69 cm. (Museum No. 441)

(9) Binout — It is an interesting weapon. The specimen possesses a round metallic ball attached to a metallic whip of about 81 cm. length. (Museum No. 430)

(10) Spear, lance etc. — The museum possesses a good number of different types of spears and lances. Their blades are made of steel but the handles are either metallic or non-metallic. The total length of these specimens varies. One spear with steel handle is 200 cm. long. (Museum No. 7009)

(11) Armours — The body armours of this museum consist of coat of mail (Zirāh-Bakhtār), arm-guards (Dastānā), helmet (Tope) etc. The interesting specimens are described below:

(i) A coat of mail composed of unriveted links of steel and brass. This is of 17th century A.D. (Museum No. F138)
(ii) A cuirass (Chār-āinā) composed of six plates of damascus steel which are lined with cotton to cover chest, back and sides. (Museum No.1559)

(iii) Another suit of armour of 17th century A.D. consisting of coat of chain mail, helmet and arm-guards. (Museum No.433)

(iv) A helmet of steel inlaid with gold. Its shape is semi-spherical, surmounted by a quadrangular arrow-head and the nose-guard. The linked chain falling in points on the shoulders. The height of the helmet is 24 cm. (Museum No.1554)

(v) A few steel helmets with chiselled workmanship or Koftgari (inlay of gold-leaf or wire). The diameter of these helmets vary from 20 cm. to 28 cm.

(vi) Arm-guards with chiselled workmanship or Koftgari and lined with velvet. Their lengths vary between 32 cm. and 33 cm., and all belongs to 17th century A.D. (Museum No.1151)

(12) Shields — There are about twenty-five shields of different shapes, sizes and materials. Some of them are described here below.

(i) A circular shield of 46 cm. diameter. It is made of steel with fine chiselled workmanship depicting hunting scene. It possesses inscriptions in Kufi script and it is of pre-Mughal period. (Museum No.1148)

(ii) Another circular steel shield of 31 cm., diameter
with inscription in cartouches mentioning the son of Jahangir, Shâjehân, dated 1037 H. (Museum No. P289)

(iii) A wooden shield (Pari) of 25 cm. diameter used for parrying. (Museum No. 2591)

(iv) A basket-shaped shield with metallic rim alround. (Museum No. P135)

(v) A circular steel made shield having 33 cm. diameter. Four metallic bosses are rivetted on its top with gold inlay of very fine quality and velvet padding inside. (Museum No. 3906)

(vi) A leather shield of 50 cm. diameter with four metallic bosses on the top and cotton padding inside. (Museum No. 1629)

(vii) Another leather shield of 52 cm. diameter with a crescent and four bosses of copper on its top. (Museum No. 1619)

(13) Fire-arms — The fire-arms possessed by this museum are mainly different types of Matchlocks, Flintlocks, Blunderbussos, Pistols and Cannons of the periods between 17th to 20th centuries A.D. The notable specimens are described below.

(a) Matchlocks — The matchlocks are country made guns. There are a good number of matchlocks displayed in the museum. The matchlock with wooden butt and long barrel attached to the stock by numerous broad bands of brass is really interesting. Its barrel is 153 cm. with inscription, 'Asaf Jâh'. The inscription is very faint now. The total length is 200 cm. (Museum No. 8927)
The second matchlock is heavier than the first one with wooden butt and long barrel attached to it. The barrel is 162 cm. long with the inscription, 'Sarkar Nizam Ali Khan Bahadur', 1193 H. The total length is 213 cm. (Museum No. 8928)

The third matchlock is 104 cm. long and the barrel is shaped as a tiger's mouth. The length of the barrel is 66 cm. (Museum No. 1748)

(b) Flintlocks — The flintlocks are commonly called as 'Banduq'. Most of the flintlocks of this museum are of 19th century A.D. One flint lock with gold-work on the barrel and ivory inlay on the butt is an interesting specimen. Its total length is 98 cm, while the barrel is 67 cm. only. (Museum No. 1404)

(c) Guns — Among the guns mention may be made of the muzzle-loading gun, double-barrel gun and modern gun. One muzzle-loading gun in this museum is 138 cm. long. Its barrel is 95 cm. in length and is damascened and inlaid with gold. The barrel also depicts a lion insignia and inscription. The inscription reads the name, 'Shânsâh Dârâ Nâzir'. The date inscribed is illegible. (Museum No. 4058)

Another gun of historical importance is about 121 cm long. Its 80 cm. long barrel is chiselled and inscribed. The inscription reads, 'Ahade-Aurangzeb'. Though the inscription mentions the gun to be the contemporary to Aurangzeb yet it seems to be of much latter period. (Museum No. 4107)
(d) Blunderbusses — All the blunderbusses in the museum may be called as flint-lock carbines. There are about twelve blunderbusses and most of them are similar in shape but sizes vary. Only three of them have got bell-shaped mouth. A few of them got gold-work and inscriptions on the barrel. The largest blunderbuss is 108 cm. long including 67 cm. long barrel. (Museum No. P 1703)

(e) Pistols (Tāmānchā) — The museum got only eleven pistols. One of them is fitted with an umbrella. Its length is 84 cm. (No. 4116). Another pistol possesses a lion insignia. Its length is 39 cm. including 29 cm. long barrel (No. 1090). There is another pistol which may be called as pistol-shaped flint-lock and it contains gold-workmanship. Its total length is 32 cm. including 17 cm. long barrel. (No. 2519)

(f) Gun-powder flasks (Tumbi) — There are only two gunpowder flasks in the museum and both of them belong to 18th century A.D. The first one is made of ivory and carved with figures. Its length is 22 cm. only (No. 424). The second one is peculiar in shape. It is more or less a fish-shaped and its length is only 25 cm. (No. 3959).

(9) Cannons — The museum possesses a good number of big and mini cannons. They are either made of iron and steel or of brass. Almost all of them are inscribed. A few important cannons are described below.

(i) A long cannon of early 17th century A.D., is really an interesting object. Its length is 212 cm. and the
size of the bore is 6 cm. The inscriptions on its body depicts the name of Adil Shah and the date as 997 H.

(ii) A huge cannon of brass with the inscription 'Sarkar Nawab Mir Nizam Ali Khan Bahadur'. It also depicts the names of Fouzder Khan and the maker Mai Faraile dated 1207 H. Its length is 320 cm and bore 25 cm.

There are six more similar brass guns of different size and bore with similar inscription but the date differs. All these guns are important for museological interest.

(iii) One cannon is mounted on wheels. The monogram RV is inscribed on it and it bears the crown insignia. Its length is 187 cm. and bore 8 cm.

(iv) One mini cannon of 46 cm. length and 5 cm. bore is an important object of this museum. It is chiselled and inscribed. The inscription reads the name, 'Aurangzeb'. (No. P 1725).

(v) Another mini-cannon of 53 cm. length and 7 cm. bore with the head of a bull, Nandi, carved on it is also worth mentioning. (No.4169).

The museum also possesses a few small cannon balls.

Victoria Memorial Hall Museum. Calcutta

The Victoria Memorial Hall Museum owes its origin to Lord Curzon, the then Viceroy of India. This charming marbel edifice was constructed with the liberal contribution of the princes and the people of India as a memorial to Queen
Victoria. The museum was thrown open to the public by the Prince of Wales on 28th December, 1921.

The exhibits displayed here unfold the panorama of Indian history from the Mughal period down to the recent times. The collections comprise paintings, engravings, lithographs, records, manuscripts, arms and armours, medals, coins, models, personal relics, trophies, maps, plans, musical instruments, uniforms, sculptures etc., depicting different phases of British Indian History.

Among the war materials possessed by this museum, arms and armours used in medieval and comparatively modern warfare and historical documents relating to British period in India are noteworthy. Some of these important exhibits are described below.

(1) Daggers and Knives — There are ten different types of daggers and knives such as - Kätär, Dakshní-Kätär, Peskabja, Khanjarā, Kamā (Qamā), Jambiā, Bichhwā, Kurauli, Pholadi, Jāfar-tākīā. Kätär is the double edged sharp dagger and the blade is triangular in shape. Dakshní-Kätārs are just like the Kätārs in shape but their blades are much longer. The blades of Peskabjas are narrow and pointed. Their cutting edges are sharp and straight but the other sides of the blades are stout and strong. There lies a great difference in holding the handle between a Kätär and a Peskabja. The blades of the Khanjars are curved. The difference in shape and size of the blades are made for special uses, as for
example, the broad blade of a Katar can not cut or pierce the body armours while it can be easily done with the help of a narrow pointed blade of a Peskabja.

(2) Swords — Dhop, Khanda, Tega, Salva, Sayef, Nimca, Tamac, Naraju, Shirohi, Torap, Lokai, Shemser, Juffikar, Sasapatta, Langarkat, Katti, Patta are the swords of different shapes and sizes displayed here. The curved-blade swords are more strong and powerful to hit than the straight swords. Marathas always preferred swords having curved blades and this shape they accepted from the Portugeese, commonly known as Firingi and so the Maratha curved sword is known as Farang. The proportionately longer swords were probably used by the cavalry men. But, the long sword Dhop was not for the use of cavalry. It was used by the nobles as a walking stick, and it was a symbol of aristocracy. The Dhops were never hanged from the waist-belt and were always carried by hand. The handles and blades of some of these swords are well decorated. The scabbards too are highly ornamented with artistic works of Jali, Mirakari, Koftgari, etc., and with precious stones. On some blades of different types of swords we find tigers, lions running after deer and war scenes are beautifully carved.

(3) Spears of Barchha — Different types of spears and similar weapons are displayed in this museum. According to the shape and size these spears are called as Pesro-ballam, Ballam, Sang, Saingin, Nagin, Valla etc. Some of these weapons
were used in actual warfare while others were used for ceremonial purposes only. The designs of these spears are worth-seeing. Some of the blades of these spears are leaf like, some are triangular and another historic spears of Murshidabad's Nawab has a trident shaped blade, but its three blades are not sharp and pointed and the middle blade is proportionately longer than the other two. On one side of the central blade the figure of 'Garuda' and on the other side the figure of Lord Vishnu are carved. On another spear having a broad triangular blade the figure of a tiger is faintly carved on the blade.

(4) Armours — Among the armours mention may be made of some metallic and leather shields, iron helmets and metallic body armour. The metallic shields are known as 'Sipâr' and the shields made of buffalo and rhinoceros hide are called as 'Dhâl'. The 'Topes' are the metallic helmets and 'Jirâ-bakhtâr' is the metallic body armour. The designs and engravings on the Sipârs and Topes are really beautiful and charming.

(5) Firearms — Among the firearms, most of them are of Mughal period and of later ages. Different types of flint-lock and match-lock guns of the Mughal period are interesting from museological point of view. Most of these guns are either made in India or at Persia. European guns or guns made in India according to European design are also displayed here. The butt end of these guns are triangular in shape.
'Chounali', a peculiar type of gun in this gallery consists of four chambers to load gun-powder. After once loading this gun can be fired four times consecutively. A few heavy and big guns in this museum will surely attract the attention of the visitors. These guns are known as 'Jhājhāwal'. Probably these were used for firing from fort-walls and hill tops. Due to heavy weight the barrel of the Jhājhāwal is supported by a short 'Y' shaped stand. In this connection mention must be made of a Turkish gun in this museum presented by the Nizām of Hyderabad. This gun is basically a flint-lock but it can also be used as a match-lock if required.

(6) Special weapons — Siṅgārā-Āshani, a peculiar weapon presented by the Nizām of Hyderabad is displayed in this museum gallery. The weapon is made of iron and its shape is the simplest form of water chestnut (B. Pāniphal). It has four sharp pointed, big needle shaped structures arising from the centre of the main body. These needles are so arranged that when it is thrown on the ground, at least one needle will always remain facing upward. Siṅgārā-Āshanis are placed scattered surrounding the forts during the Mughal period to check the advance movement of the enemies.

(7) Bān is another awe inspiring weapon of the Mughal period. It is like our modern fire-work 'Hāwoi', used during different ceremonial functions in India. There are two Bāns in this museum brought from Golkonda Fort. These
were manufactured when emperor Aurangzeb invaded Golkonda Fort. A Bān can be described as a cylindrical iron case filled with gun-powder and tied at one end of a bamboo stick with the help of ropes made of leather or sniews. The soldiers who are specialist in throwing this weapon are known as Bāndār or Bān-Āndāj. It is reported that in the army of Haidar Ali and Tipu Sultan there were five thousand Bāndārs. In the 'Hastings Gallery' of this museum a painting of James Hunter depicting the Bāndārs of Tipu Sultan is displayed.

(b) Documents — The collection of documents relating to the British period of Indian history are a distinctive feature of this museum. The treaties, engagements and Sanads and official minutes, despatches and letters which this museum preserves are the original sources for the study of military history of late medieval and modern India. Among the huge number of documents a few are mentioned below.

(a) Treaties and letters between the East India Company and Mirjāfar, Nijāμuddaulā, Saifuddaulā, Mubārkuddaulā, the Nawābs of the then Bengal, that narrates the fact how these independent powerful Nawābs became powerless rulers.

(b) The political map of India changed thoroughly during the 18th and 19th centuries A.D. This gallery presents a few factual stories of these changes such as — the stories about the ill-fate of the Nawābs of Oudh; the historical facts about the fights between the Englishmen and Hyder Ali, the king of Mysore and Tipu Sultan.
(c) The agreement (1775 A.D.) between the Englishmen and Nawāb Sujāuddaulā of Oudh relating to the transfer of Allahabad and Kada provinces.

(d) The treaty (1784 A.D.) between Tipu Sultān and the Englishmen after Second Mysore War.

(e) The agreement between the Englishmen and the Marathas along with the Nijām of Hyderabad of 1790 A.D., to overpower Tipu Sultān.

(f) Letters written by Jhon Malkom to Lord Wellesley, 6th February, 1804 and Resident Marsar to Lord Lake dated, 14th December, 1805.

(g) Minutes dated 3rd April, 1814 written by Lord Mayra about the Pindāries.

(h) Agreement dated 5th February, 1817, between Daulat Rao Sindhia and the Englishmen.

(i) Several other agreements between the East India Company and Sarvoji, the king of Tānjore (1799 A.D.), Nawāb Walajar of Karnatak (1801 A.D.) and Mahārājā Balaram Burma of Trivancore (1805 A.D.) respectively.

(j) Among the documents relating to the Sepoy Mutiny of 1857 A.D., the first independence movement of India, the description written by Lord Canning is worth mentioning. The description mentions about the 19th Infantry Battalion Sepoys' revolt on 26th February 1857 at Berhampur (Murshidābād) and recapture of Lucknow and Delhi by the Englishmen.

(k) After the Sepoy Mutiny of 1857, Queen Victoria
took herself the charge to rule India. The proclamation of the then Governor General of India to this effect is also displayed in this gallery.

(9) Guns — At the centre of the Statue gallery is placed a big gun made of brass. Over its body it is engraved that the gun was constructed for Mahārājā Krishna Chandra by Sri Brojokishore Das Dey Karnakar.

On either side of this gun is placed two more guns facing each other. These two guns are made in France and it is reported that these two guns were used at Palassey battle field by the gunners of Nawāb Sirājudānillā.

(10) Miscellaneous — Among other important objects of military studies mention may be made of the following:

(a) Numerous paintings and photographs relating to military activities in India during the Mughal and British rule.

(b) The Royal Chair of Murshidābād’s Nawāb. This Royal seat is made of a single piece black stone measuring two meters in diameter and having sixteen sides. From the engravings on its sides in Persian language it is learnt that this seat was prepared under the supervision of Khājā Nājar Bokhāri at Munger (Bihar) in the year 1641 A.D. (1052 H) when Sāhājāhān’s son Sujā was the Subedar of Bengal, Bihar and Orissa.

(c) The Āchkan (long coat like private dress) and a lock of hairs of Tantiā Topi, the famous national hero of
Sepoy Mutiny of 1857, along with copies of letters and photographs of many Indian heroes and politicians connected with Indian freedom movement are displayed in the 'National Leaders' gallery of this museum.

(d) In the North-East balcony of the museum one will find a few lithograph picture by Captain Green and Lieutenant Micham depicting many events of Sepoy Mutiny occurred at different places of Lucknow and Kanpur.

(e) The North-East verandah of the museum is attractive to the visitors due to display of some printed photos of British war-ships and merchant vessels of 18th and 19th centuries A.D. Over and above there are many pictures showing the cantonment areas of Berhampore and Dacca towns.

(f) In the North-West balcony of the museum about thirty water-colour pictures drawn by Samuel Davis depicting the Udhuanalâ bridge and the forts of Hunger, Chunârârâh and Benaras will surely add additional attraction of the visitors and remind them many military events of those days.

(g) In the Calcutta gallery the visitors will get an idea of the old Fort William which was situated at the present site of Calcutta General Post Office during 18th century A.D., while looking round the pictures drawn by Vyandergust, Vanrhine, Daniel and Hiki and the wooden model of the same.

(h) The 'Hastings' gallery presents a good number
365

of pictures depicting different events of First, Second, Third and Fourth Anglo-Mysore wars, Tipu's surrender, Tipu's death, Tipu's army and march of Hyder Beg on elephant's back towards Calcutta.

(1) This museum possesses a few rare books depicting the uniforms of soldiers during medieval and British periods in India. If models can be prepared wearing the replicas of these uniforms then it will be of great interest to study the evolution and gradual development of uniforms of Indian soldiers. The names of the books are as follows:

(i) Uniforms of French Troops in India (coloured sketches) c.1410 - 13 A.D.
(ii) Military Costumes of India by Captain James,
(iii) Costumes of the Indian Army by Harris,
(iv) Costumes of the Madras Army by W. Husnasley,
(v) Costumes of the Bengal Army, and
(vi) Tipu's soldiers (c.1333-1341).

(j) Flags — The museum got the colour presented to the Second Bengal European Regiment at Hazāribāgh in October, 1839 A.D.

Central Sikh Museum, Amritsar

The Central Sikh Museum is earnestly and laudibly doing its works in the cause of the country as a whole and particularly of the Sikh community in India. Earlier efforts were made by a few renowned Sikh ruling families, the Gurdwara Committees and some individuals to collect and preserve relics and paintings relating to Sikh history. Most of the collections
of Maharaja Ranjit Singh were taken away by the then British rulers in India and the remaining objects still exist in the Lahore Fort and is known as Sikh Museum.

It is only very recently in the year 1958, the Shiromani Gurdwara Parbandhak Committee decided to establish the Central Sikh Museum. This museum started on 11th July, 1958, above the Northern Deodhi of the famous Golden temple, Amritsar with a small collection of objects procured from the Sikh Reference Library and from various other sources. At present the number of objects counts beyond one thousand and all these objects relate to Sikh history, religion and culture.

The Sikhs in India are recognised as a martial race and so their history and culture depict full of military activities. From the stand point of Military Studies the exhibits of this museum are not only important but interesting too.

The articles of the Central Sikh Museum can be classified into the following groups and important items are only mentioned below.

(i) Oil-paintings — There are more than 125 big size oil-paintings drawn by artists named Sobhā Singh, Gurdit Singh, Kirpāl Singh, Hasmat Singh, Sohan Singh and Thākar Singh. This important collection of paintings, widely portraying the trials and tribulations through which the Sikh leaders had gone. A pilgrimage to this gallery of the museum will keep a
life long impression about the historical events of the Sikhism and reminds us about the brave heroes who sacrificed everything to protect their religion and freedom.

(2) Other paintings and drawings — Among other pictures mention may be made about 16 water colour paintings (Kangra Art) and a few sketches and etchings, all depicting the figures of heroes and leaders who created the Sikh history and inspire us to learn a lesson of sacrifice for the sake of country and the faith.

(3) Photos and prints — There are about fifty photographs and prints of different battle scenes and ex-rulers of native states of Punjab.

(4) Arms — In the arms gallery of this museum following objects are worth mentioning:

(a) One gun barrel and forty lead bullets of the time of Guru Gobinda Singh Ji. (b) Two wall-guns of the 18th century A.D. (c) One pistol of the time of Maharaja Ranjit Singh. (d) One bow of 18th century and fifteen arrows of 18th or early 19th century A.D. (e) One armour (date not known). (f) Five spears of 18th or early 19th century A.D. (g) Seven swords of 18th century A.D. (h) Three shields of 18th century. (i) One big German cannon. (j) Three cannon balls of 19th century. (k) Bomb shells used during the Indo-Pak wars, 1965 and 1971. (l) The sword of Maharaja Ranjit Singh. Its hilt is studded with precious stones. (m) One double-edged sword (Khanda) with which 30,000 people were baptised in the year 1941 at Aligarh, U.P.
(5) Hukum Nāmās — There are about ten Hukum Nāmās of which the Hukum Nāmā of Guru Gobinda Singh Ji is the original one and the rest are the photographs of the Hukum Namas (secred letters of the Holy Gurus) of Guru Tegh Bāhādur Ji, Mātā Gujri Ji, Mātā Sundri Ji, Mātā Sahib Kaur Ji and others.

(6) Miscellaneous — Among various articles used by the Sikh heroes the following are worth mentioning:

(a) Belt and strap of Guru Gobinda Singh Ji’s sword.
(b) Glass ball of Guru Gobinda Singh Ji’s seat.
(c) A few musical instruments such as Mardang, Šarāngi, Rabāb, Dilrubā and Sītar. We do not know who are the heroes played on these instruments.

Trichur Museum, Trichur

As reported by the Director of the museum, this museum is under the supervision of the Director of Museums and Zoological Gardens, Trivandram. Its archaeological section was thrown open to the public in the month of March, 1947 and it possesses historical objects of archaeological interest. The principal exhibits are: (a) antiquities from Mohenjo-daro and Harappā sites, (b) antiquities from Taxilā, (c) types of megalithic monuments in Cochin and mid-Kerala regions, (d) microliths representing flakes of polished milky quartz found associated with the megalithic sites of Cochin, (e) Reproduction of about hundred panels of mural paintings from the wall of the Mattancheri Palace, Cochin and Vadakkunathan temple, Trichur (c.16th to 18th century) and (f) a few war materials.
The war materials displayed in this museum are only ten in number; some were presented by the Military adviser, Southern India Circle through the Commandant, State Forces, Cochin and some other were transferred from the Police Department. The objects are as follows:

(i) A good number of 65 mm Munji-type Rifles.
(ii) A few 8 mm Type 'A' Rifles with bayonets.
(iii) A few 8 mm Type 'B' Rifles with bayonets.
(iv) A few 10.35 mm Rifles with bayonets.
(v) 6.5 mm and 8 mm Type 'A' Carbines.
(vi) A few Turkish Rifles.
(vii) Turkish helmets.
(viii) A few machine-guns.
(ix) Different varieties of swords and axes.
(x) Some models of war equipments.

As reported, items 'i' to 'v' are war trophies captured by the Cochin State Forces and others are war trophies captured during 2nd World War.

Bengiya Sāhitya Parishad Museum, Calcutta

The Bangiya Sāhitya Parishad was established on 29th April, 1894. The first six years of its life passed in the house of Rājā Benoy Krishna Deb at Sovabazar, Calcutta and then for about a period of seven years it was housed in a small building in Cornwallis Street (present Bidhan Sarani) and finally shifted to its present building on 6th December, 1908. The total cost of the building at that time
was Rs 38070/- only and this amount was collected from public 
as subscription and donation from big zamindars.

To perpetuate the memory of Sir Ramesh Chandra 
Dutta, the first President of the Parisad it was proposed to 
establish a Literary and Historical Museum. The Bhagalpur 
session of the Bengal Literary Conference held in February, 
1910 accepted the proposal and a General Committee was formed 
with Sri Sāradā Charan Mitra, the then President of the Parisad, 
as the Chairman of the Committee and representatives from all 
the provinces of India were taken in the Committee.

The museum called as 'Ramesh Bhawan' was constructed 
in stages with the money donated by Mahārājā of Baroda 
(Rs 5000/-) and subscriptions from the public on the adjoining 
land (7 Cottahs) donated by the Mahārājā of Cossimbazar.

The ground floor of the museum was completed in 
1924 and the first floor was constructed in 1938. After the 
completion of the ground floor the Ramesh Bhawan Committee 
vested all responsibilities of its management with the Exe­
cutive Committee of the Bangiya Sāhitya Parisad in 1931.

The collection of this museum can be classified 
under following heads : (a) Manuscripts of eminent literary 
men of Bengal and also the Sanskrit, Oriya, Assamese, Tibetan 
and Persian treatise. Their total number is about 6000. 
(b) A good library including the personal libraries of some 
eminent scholars. (c) Rabindra collections. (d) Old pictures 
and paintings, statues and photographs. (e) Letters and 
documents. (f) Ācharya Prafulla Chandra collection.
Among the objects the following are most interesting to the visitors interested in Military history of India and particularly in Military studies.

(1) One iron cannon ball from Palasssey, used in the battle of Palasssey. It is presented by Aksaya Kumar Mitra.

(2) Three stone cannon balls used by Pratapaditya of Bengal in his wars with the Mughals. These are presented by Sris Chandra Adhikari.

(3) A conical copper helmet consists of three concentric bulbous sections decreasing in diameter (minor axis - 6\(\frac{1}{8}\) inches, Major axis - 6\(\frac{7}{8}\) inches) as they rise and surmounted by a final representation of Vajra. The second section is engraved with four rosettes fixed on it. The bottom section is ornamented with a flat band showing a knot in the centre on the reverse. The bottom of the peaked portion in front shows a representation of three cords tied in the centre by three rosettes and terminating at the ends in two circular decorative devices; higher up are found two creepers springing from three rosettes corresponding to those below and terminating lotuses on two sides of the central figure of Buddha in Dharmachakra Vyakhyana mudra. The back of the helmet is inscribed. This object is presented by
Mahomophadhyya Haraprasad Sastri. It is dated Nepali Sambat 707 i.e., 1587 A.D.

(4) Another iron cannon ball from Bishnupur (Bankura), presented by Atul Chandra Singh.

(5) A portion of a chain-mail probably a part of a surcoat. It is also from Bishnupur and presented by Atul Chandra Singh.

(6) A very heavy sword. Nothing is known about its find-spot, user and doner.

(7) An iron gun presented by Dr. Sarasvati Lal Sarkar.

(8) There are six copper-plate Grants in this museum. Two of them are of Lakshman Sena, one each of Viswawrupa Sena, Vijaya Sena, Mahipala-I and Vigrahapala III. These Grants may be described as landmarks in the pre-Muhamedan history of Bengal. These Grants have helped much in supplying valuable informations to fill in some lacunae in the connecting links in the history of Bengal and corrected many conjectures that served as history at earlier periods before they were discovered.

(9) The picture of a soldier on camel's back drawn on mica is really an interesting object of this museum.

(10) The collection of metal images in this museum consists of beautifully made figures of different Hindu deities in various postures and holding weapons such as Vajra, Gada, Cakra, Trisula and Agni.
The Kittur Rani Channamma Memorial Museum was founded to commemorate the famous queen Channamma, who fought bravely with the British Government. The museum was established due to the keen interest of Mr. S.R.Kanti, the then education minister of the State. This museum is situated within the ancient fort of Kittur, a few yards away from the ruins of Kittur Palace. This museum was thrown open to the public on 10th January, 1987, by Sh. Indira Gandhi, the then Prime Minister of India.

The collection of this museum includes stone sculptures, coins, inscriptions, arms and armours, wood-carvings, costumes of the 19th century A.D., leather puppets and paintings depicting the Kittur history.

Among the important items of war materials in this museum a few swords, steel maces, steel axes, a peculiar bayonet type sword that can be used both as sword and shield, a few shields made of elephant's skin and wood, an armour used by the commander Gurusiddappa of Rani Channamma, two cannons and a few cannon balls made of iron and stone are sure to draw the attention of the visitors. The museum got no catalogue or detail records of the war materials.

Hazarduari Palace Museum. Murshidabad, West Bengal.

The foundation stone of the Hazarduari Palace was laid on 29th August, 1829, by Nawab Nazim Humannjah Bahadur in presence of British inhabitants and elites of Murshidabad.
town. The building plan was prepared by Colonel Dunkan Mackloid of Bengal Engineering Regiment. The construction was done by local masons and labourers under the direct supervision of Colonel Dunkan Mackloid. After nine years the construction was completed in the month of December, 1837, and at that time Rs 18,00,000/- were spent for the construction. The Palace is three-storeyed and its dimension is 425 feet long, 200 feet broad and 100 feet high (425' x 200' x 100'). The technique of this construction is influenced with the Italian architect.

The attractions of the Palace are the paintings of Raphel, Marshal, Titian, Vandyke etc., the old master painters; the library which is enriched with rare books and valuable scripts and documents in Urdu and Persian language; the original manuscript of Ain-i-Ākbari by Ābul Fazal and the armory containing huge number of valuable and rare war materials that were mainly used in the battle of Palässey. The Palace is at present under the control and management of a Trust Body. It is painful to mention that this historical site along with its materials housed there is not at all well maintained. From museological point of view the rich armory situated on the ground floor of the Palace is fully neglected and it is reported by the local people that many valuable and rare objects have been shifted from this armory to different places. With much endeavour I failed to get authentic information about this
armoury from the managing authority of the Palace. However, as reported by the guide of the Palace and unofficial information received from the Special Officer on duty there, the following objects seem to me worth mentioning among many other war materials displayed in this armoury.

1. A straight sword used by Nawab Sirajuddaulah.
2. A sword with forked anterior portion used by Nawab Aliardi Khan.
3. Four medium sized cannons used during the reign of Nawab Murshid Kuli Khan (1706-1725 A.D.), the founder of the city of Murshidabad.
4. One small size six-barrel cannon.
5. One eight-barrel gun of Nawab Sirajuddaulah.
6. The historic cannon used in Palassey battle, which caused the accidental death of Mirmadan while charging it.
7. One trident-shaped spear of Vikramaditya of Bengal (?).
8. The shield, iron chain armour and the spear of Nadir Shah.
9. The iron helmet of General Rustam.
10. A good number of small (18 inches) brass boat-guns. The effective range of these guns as reported is about 300 yards.

Besides the above mentioned objects innumerable swords, daggers, knives, battle-axes, spears and lances, etc. of different shapes and sizes; shields made of hide and iron
with bosses and engravings, a large number of guns, muskets, cannons; the standard used by the army of Sirājuddaulāh at Palāssey Battle and many other war materials are stored here and all these materials are interesting to the visitors, specially to the students and research scholars.

In this connection two big cannons, though not housed in this armoury draw special attention of the visitors at Murshidabad, are described below.

The first cannon is known as 'Jāhānksā' (the destroyer of the world). It is situated at the eastern side of the city Murshidabad near Katrā Mosque. The cannon is 18 feet long with a circumference of five feet on the bore and twenty inches at the mouth. It weighs nine tons and about twenty-five Kilograms gun-powder requires for one shot only. At present there are six inscribed brass plates (previously there were nine plates as reported) fitted on the body and the inscriptions are in Persian script but now they became illegible. As reported, the inscriptions read, 'this cannon was constructed during the reign of Mughal Emperor Shāhjāhān, by Janārdan Karmākār of Jāhāngīr Nagar (present Dacca) under the supervision of Haraballav Das, a sub-ordinate staff of Dāroğā Sher Mohammad, on 11th day of Jamadiassani month in the year 1047 Hizri'.

The second one is left neglected near the Imāmbārā close to Ḥāżārdhari Palace. No record is available about this cannon. As reported by the guide there, Nawāb Nājīm Humāunjāh discovered this cannon from the bed of river Ganges.
It is of three barrel system and requires about fifteen kilograms of gun-powder for one shot only. Before discharging any shot the people residing within the area of ten square miles are warned beforehand. There is a hearsay that once with the discharge of a shot from this cannon a few pregnant women were aborted and since then this cannon is called as 'Bāchchavāli Tope'.

**Border Security Force Museum, Indore, M.P.**

The Border Security Force (B.S.F.) museum of Indore is a good store-house of war materials. It is situated on a small hillock away from the city near the Indore Air-port. It is a three-storeyed old residency of the Holkar family of Madhya Pradesh. No catalogue or official records about the history of the museum and its materials is available. The war materials housed here are mainly of British period in India and a few tribal. The museum is strictly closed to the general public. This museum may be helpful for studying the evolution of modern arms if it is organised and displayed in a scientific way. It is learnt that the present authority is planning to organise this store-house of weapons into a museum of war materials in the true sense of the term.

Some of the important objects housed here are as follows:

1. A good number of bows and arrows. Probably some of them belong to the medieval period and some are of tribal origin.
(2) An Ardhacandra Bān.
(3) One reverse curved sword.
(4) A mace and a double faced battle-axe.
(5) A trident either made of Brass or mixed metal.
(6) A leather sling.
(7) A set of Assamese Pāraśu, Spike and Sickle-axe.
(8) One rifle collected from a Pakistani para-trooper at Punjab during 1860 war. This is presented by Sri Aswini Kumar.
(9) Two Light Machine-gun and two Pistols presented by Sri G.K. Mazumdar, Inspector General, B.S.F. (W.B.), as war trophies.
(10) A wrist-watch and a pistol with case (Italian), presented by General J.N. Choudhuri as war trophies.
(11) A few Tāngi and Dāo of NEFA area.
(12) A set of Nāgā cane shield, big Dāo, Spikes, bows and arrows.
(13) Three .410 walking stick type guns.
(14) A set of fourteen revolvers of different bore (.38, .45, .55)
(15) A model of Vietnamese observation-post to lead enemy to booby-trap for certain death.
(16) Another set of Pistols of various sizes (4 inches to 18 inches), shapes and makes.
(17) An Assamese bamboo model of B.S.F. Bāshā i.e. outpost.
(18) A few documents appreciating B.S.F. soldiers' performances in peace and war at different sectors.

(19) Photographs of operations conducted mainly by B.S.F. Jawans in different sectors during 1965 and 1971 Indo-Pak wars.

 Various other war materials stored here are —

Percussion guns, Match-locks, Flint-locks, Javelins, .30 Browning Machine-gun (USA, 1918), .303 Bren LMG (Britain), 7.62 mm LMG (Checoslovakia), 7.7 mm LMG (Japanese, 1939), 6.5 mm LMG Japanese (Nambu, 1922), Cannon-locks of 1343 (make not known), Rocket-luncher, 57 mm Recoilless Rifle (USA), Two inches Mortar Shells, High Explosive Bombs, Hand Grenades and huge quantity of ammunition, a few statues of outstanding B.S.F. Heroes.

Allahabad Museum, Allahabād, U.P.

The Allahabad Museum was established in the year 1931, under the supervision of Sri B.M. Vyas, Executive Officer, Allahabad Municipal Board. In the year 1943, Dr. Satish Chandra Kala took the charge of this museum as the first curator. Since July 1958, Dr. R.R. Tripathi is the curator of this museum and Dr. Kala is working as the Chief Advisor. The museum embraces objects of art, archaeology, terracottas, historical documents, zoological specimens and the objects donated by Sri Jawaharlal Nehru, the ex-Prime Minister of India. The museum has no printed catalogue or detail accounts of the objects.
The notable war materials of this museum are as follows:

(1) A few paintings on ivory (20th century) depicting different forts of India and the figures of the members of the Nawab families of the Medieval period in India.

(2) A few miniature paintings of 18th century depicting the uniforms of Mughal soldiers.

(3) "King busy in smoking", a painting (Bundi Style, 18th century A.D.) depicting a straight sword, hat-shaped shield and a Jamadhār (dagger) with 'H' shaped hilt at the waist.

(4) "Conversation", a Mewār style painting of 18th century A.D., depicting a short-bow and arrows.

(5) "King's Court", a Mughal painting of 18th century depicting swords and daggers of various shape and size and big pistols.

(6) "Prithvirāja", a Kotā type painting in sitting posture depicting sword, bows, quiver and arrows. (19th century)

(7) A Rājasthāni painting of 19th century depicting an elephant yoked in a four-wheeled chariot.

(8) A hunting scene of Mewār style (19th century) depicting straight sword and round shield.

(9) A procession scene (18th century Rājasthāni painting) depicting men carrying swords, shields, spears,
flags. Añkuśa is also visible in the hand of the Māhūta on the elephant's back.

(10) “Ākbar and his courtiers”, a Rājasthānī painting of 18th century depicting swords and daggers.

(11) “Rāṇā presenting a sword”, is a beautiful Mewar style painting of 18th century, depicting two elephants fighting.

(12) A Kota style painting of 19th century depicting a man with a sword in slope-arm position on the left shoulder and holding a Gupti in the right hand and a dagger kept at the waist.

(13) “The King”, a Basohli type painting of 18th century depicting a man with a sword in slope-arm position on the left shoulder and holding a Gupti in the right hand and a dagger kept at the waist.

(14) “Battle Scene”, a Rajasthani painting of 19th century depicting elephantry, cavalry and foot-soldiers.

(15) “Protection of Ajamil”, a copper plate depicting sword, bow and arrows, mace and cakra.

(16) Five medium size round metallic shields, each studded with four metallic bosses and highly decorated. (c.18th/19th century A.D.)

(17) One small round hat-shaped hide shield.

(18) A pair of metallic hand-guard.

(19) A curved sword on which the figures of Hindu gods are curved.

(20) Another curved sword of which one side is serrated and the other side is dented with minute spikes between the teeths.
(21) A slightly curved broad sword with knob-like hilt and hilt-guard.

(22) Two daggers with 'H' shaped hilt and fully decorated.

(23) An iron chain body armour consisting of a helmet with neck-guard, nose-guard and a spike at the top, probably to attach plumes and a coat of mail with four ways (pocket-like) probably to keep different weapons.

(24) A few Copper Age weapons of c.1200 B.C., from Bissauli, Budaun, Rewa and Kanpur. The weapons are:

(a) A sword with two antennae of about 15 inches long, (b) eight copper celts and (c) a copper Anthropomorphic figure like weapon.

(25) A terracotta chariot palaque of c.2nd century B.C., (Kausambi) showing four horses, two spiked wheels, an umbrella, a flag mast and the charioteer.

(26) Two terracotta figures from Kausambi of c.2nd century to 1st century B.C., showing a mace and a man with quiver full of arrows.

(27) A few copper coins of Dhruvamitra from Ahichchatra (c.1st century B.C.) depicting a boat with sail and some showing a chariot.

(28) A few Punch mark silver coins (c.300 to 200 B.C.) depicting different weapons.

(29) A few copper objects from Kausambi depicting Arkusa, arrow-heads and Singa (war musical instrument).
A letter by king Kajjld Ali Saha of Oudh, dated H.1275, to his queen Malikā Afsar Unnisā Begam who could not accompany him to Matyā-Burj i.e. Meṭiā Buruz in Calcutta.

A good number of Formāns (contents not known).

Ten medium and one small cannons are displayed at the gate and in the precinct of the museum building. All of them are of late medieval age or of early modern period. No record about these guns is available.

Madrās Government Museum-Emore, Madras

The Government Museum, Madras has celebrated its centenary in the year 1931. In the year 1851, the museum started with Dr. Balfour as its organiser. He was then the Chairman of the committee of the Madras Literary Society and also the Secretary of the Central Committee of the 1851 Exhibition. The museum started its life in the college of Fort St. George and Balfour did not limit the scope of the museum and articles of great value and interest were received from liberal donors. The notification regarding the opening of the Museum to the public first appeared in the Fort St. George Gazette, dated April 29, 1851.

By August, 1853, the museum had a total collection of 19,830 specimens and the rooms allotted for the museum in the college building were so overcrowded that the Government was requested for a separate building. It was then decided to move the museum to the Pantheon, in December, 1854,
which was then occupied as the office of the Collector of Madras. This Pantheon then consisted of two long halls, two small wings and two outhouses. At present, very little of this old structure remains except the plinth, and a part of the ornamental floor of the two rooms where foreign animals are now exhibited.

The collection of war materials of this museum is very rich. Some of the important and interesting war materials are described below:

(a) Medals — There are about 250 medals and most of them are exhibition medals. The rare pieces are the Mysore Medals. These medals were awarded by the East India Company for services during the Mysore Wars. On the obverse of the rare Mysore Medal of 1791-92, the figure of an English soldier is seen holding the British standard, half unfurled, with a distant view of the fortifications of Seringapatam and the following Persian inscription which reads as 'Struck in the year 1791-92 (corresponding with the Mohamedan era 1202 H)', a memento of the self-sacrificing devotion of the British Government in Mysore.

The Seringapatam medal of 1799 is another piece of important object. This medal was distributed to the officers and soldiers — both European and native. One side of this medal represents the storming of the breach of Seringapatam from an actual drawing on the spot with the meridian sun denoting the time of the storming of the city and the Persian
inscription which reads, "The Fort of Seringapatam, the
gift of God the 4th May 1799". On the other side of this
medal is the British lion, subduing a tiger, the emblem of
Tipu Sultan with the date of the conquest. Another Bronze
medal depicting Lord Cornwallis on one side and the scene
of the surrender of Tipu's sons as hostage is the most
interesting and rare piece in the Mysore Medal series.

(b) Charters, Documents etc. — Original charters,
documents and treaties mostly relating to the history of the
East India Company in the 17th and 18th century A.D., were
handed over by Madras Record Office on a permanent loan basis
to this museum.

Documents in Indian languages, letters written by
famous persons like Lord Clive and General Lally are some
of the interesting specimens. Further, the collection in
this museum includes a facsimile of the Great Charter of
England, the Magna Carta of 1215 A.D., believed to be the
only copy in India.

(c) Arms — The prehistoric tools and implements
of the Stone and Iron Ages are displayed on the ground floor
in the right wing of the front building while on the left
wing are housed the arms of the historic period. At the
entrance of these wings is a very long row of spears from
the Tanjāvūr armoury arranged against the wall. There also
are displayed two huge bronze bells from China, brought as
trophies of the notorious opium war.
At the entrance of the Arms gallery is seen a varied assortment of halberds, pikes, spears and a set of Spanish plate armour from Manilla. The arms collections are displayed in two rooms only while a good number of huge cannons are displayed around the front building. All the cannons were collected as trophies from Manilla, Mysore and Tarangambadi.

In the first arms room following objects will draw the attention of the visitors:

1. Early matchlocks, musketeons, huge guns, blunder-busses, rifles and pistols either used by the men of East India Company or captured by them as war trophies.
2. A set of artistically engraved powder flasks.
3. A series of battle-axes, arrows and chain shot fixed to the wall.
4. Two guns richly inlaid with gold presented by the East India Company to Sarfoji Maharaja of Tanjāvūr.
5. A few Chinese helmets and some stone shots.
6. Some cannons, mortars, wall pieces and grape-shots. Of these a large breach loading cannon is an unique exhibit and some miniature models of mortars and cannons are also interesting.
7. A few coats of mail armour are also displayed.

The other room contains a varied collection of lethal and ceremonial weapons received from the Tanjāvūr armoury. The exhibits include swords, maces, daggers, choppers, knives, spears, elephant goads, bows and arrows.
Some of these objects are exquisitely designed with carved designs of yalis, makaras and parrots on them. Among the cannons displayed in this room, two are very old (date not known) which represent the earliest method of cannon manufacture. Here we find longitudinal strips of irons are arranged inside a series of circular iron rings and the whole structure is welded together. Other interesting objects are the reversible steel bows, the signed arrows of the Maharājā of Tamilnūr and the Bag-Makh (tiger-claw), the typical weapon which could be concealed in the palm and which was used by Sivaji against Aīzal Khān.

The Infantry School Museum, Mhow (M.P.)

Mhow is an important cantonment town near Indore (M.P.). During British rule in India, the Military Head Quarter of Weapons (MHOW) was situated here. In the year 1965, the then Commandant, The Infantry School, proposed to establish a museum of war materials within the campus of the school with an idea to give a progressive picture of the evolution of different war materials and to make the museum really colourful, interesting, educative and purposeful to the cadets and trainees.

For this purpose, a three-men Committee was formed to make detail study and to submit its report. In February, 1966 the Committee submitted the report with the following recommendations:

(1) The museum should contain weapons, equipments,
clothings, badges, insignia and other items of historical interest of India since early period.

(2) The sections should be divided as follows:
(a) Early period (4000 B.C. - 1000 A.D.), (b) Muslim period (1001 A.D. - 1700 A.D.), (c) British period (1757 A.D. - 1946)
(d) Modern period (1947 - to date).

(3) The museum should have a foreign section to cover the development of arms and equipments in all foreign countries.

(4) The important battles of each period will have to be studied and attempt should be made to cover the development of arms and equipments used in these battles.

(5) For acquiring exhibits following sources are to be tapped: (a) Houses of the erstwhile ruling princes be approached for loan/gift. (b) Archaeological departments are to be contacted for loan/gift. (c) To contact Government of India archives for documents.

(6) The education officer should be made responsible for progressing the case and maintaining the museum.

(7) The building should cover: (a) separate sections for the periods as enumerated above, (b) a central library-cum-office, (c) a waiting room, (d) a toilet room.

(8) The building design should cater for large possible expansion for the future acquisition of exhibits.

(9) The arrangement should meet all the facets of a military museum including aspects of tactics, organisation
and logistics, pertaining to each battle and the periods as a whole to have the necessary value in terms of military education.

However, still to-day the recommendations of the committee have not been fulfilled. The present museum is a small one containing only modern unclassified infantry weapons under the charge of a staff-officer, as there is no curator or education officer for the museum. The museum is mainly used by the cadets or trainees of the school and the military personnel. Visitors are allowed with permission of the Defence Department, Government of India. A good number of objects displayed here can also be seen at War Memorial Museum, Red-Fort, and Border Security Force museum, Indore.

If this museum ever be constructed according to the plan and recommendations of the committee, then it may be a good museum of war materials but how far it will serve the purpose of mass education is doubtful.

Note: The author visited the museum in the month of September, 1977. He submitted the informations collected there for pre-security clearance and also requested for other informations to the Commandant of the school. Still to-day the author did not receive the pre-security clearance certificate from the Army Headquarter though he got the intimation that it has been issued. So, further detail about this museum could not be added here.
REFERENCES

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(2) Data supplied by the curator. (Ref. letter No.3210 dated
30/31.7.76)

(3) Data supplied by the curator. (Ref. letter No.KM/Misc/76-326)
Hand-out of the museum.

(4) Data supplied by Rear Admiral M.P. Awati, Vr.C. Commandant NDA.

(5) Personal visit and data supplied by the Director of the
Museum.

(6) Data supplied by the Director. (Ref. letter No.ASM, 26/76/363
dated 16.9.76)

(7) Personal visit and data supplied by the curator.

(8) Data supplied by the curator. (Ref. letter No.CM/462 dated

(9) Data supplied by the curator. (Letter No. 597/76-B dated,

(10) Sri Nigam : Arms and Armour in the State Museum, Hyderabad,
A.P. (Andhra Pradesh State Museum Series No.13.
Hyderabad, 1975)

(11) Personal visit and data supplied by the curator. (Ref.


(13) Data supplied by the Director. (Ref. letter No.L.Dis.
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(14) Personal visit.
(15) Data supplied by the Assistant curator. (Ref. letter M0.141/MES/76-77 dated, 17.1.77)

(16) Personal visit.

(17) Personal visit.

(18) Personal visit and guide book.


(20) Personal visit.