Plates
SOME INDIAN WEAPONS

Plates I to XLIV represent a few weapons of India. A museum of war materials can collect original objects or prepare replicas according to the descriptions available in different texts, records, sculptures, paintings, coins etc., of various types of weapons used in India through ages and exhibit them in galleries in a chronological order to present a complete theme about the nature, development, uses, effectiveness, materials used, legend associated, peculiarities if any and many other interesting points about Indian weaponry.
PLATE I

STONE AGE TOOLS

1) **Handaxe**: Unifacial pebble tool of Early Stone Age. Only working edges are flaked and is prepared by Anvil method (Block-on-block technique).

2) **Handaxe**: Triangular shaped tool of Early Stone Age. Probably prepared by Clactonian technique.

3) **Handaxe**: Heart shaped stone tool of Early Stone Age having broad butt end with incurved sides.

4) **Borer-cum-scraper**: A tool of Middle Stone Age. Probably used both for scraping and boring.

5) **Bifacial Point**: A tool of Middle Stone Age. Probably smaller and thinner Points served the purpose of arrow-heads and larger ones used as spear or javelin heads.

6) **Mace head or Ring-stone**: A tool of Late Stone Age. Probably prepared by grinding and polishing technique.

7) **Axe inserted in an antler sleeve**: It is a tool of Late Stone Age.

8) **A spear head hafted in a wooden pole**: It too belongs to Late Stone Age. This hafting could be done in many ways and this hafting technique continued in latter period.

(Collection: Department of Anthropology, Bangabasi College, Calcutta)
PLATE II

INDUS VALLEY WEAPONS

1-3) Spear-heads: Bronze spear-heads of different shapes. Probably used by setting in the split-end of shafts.

4) Arrow-head: Copper arrow-head with narrow barbs but no tang. Probably used by inserting it in a split bamboo shaft. It was difficult to set it in wooden shaft without enclosing a portion of the arrow-head into the shaft.

5) Axe-adze with shaft-hole: Its working end is crescent shaped, the butt end is straight but slightly curved and the middle portion is the thickest.

7-8) Parallel-sided Chert-Flakes: These were probably used for cutting like knives.

6) Copper Flat Axe: Sides are nearly parallel, the butt end is more or less straight and in cross section it is double convex.

(Source: G.N.Pant — Studies in Indian weapons and warfare.)
PLATE III

COPPER HOARD WEAPONS

1-2) Antennae swords: These are long, tapering swords with strong medial rib and bifurcated hilt like the antennae of an insect. The hilt and the blade are of one cast.

3) Bar-celt: It is a parallel sided bar of about two feet long and six inches width with a rectangular cross-section but upper side convex.

4-7) Axes: Simple flat copper axes of different shapes and sizes.

8) Anthropomorphic figure: Probably it was a throwing weapon or an all purpose tool.

9-10) Harpoons: These are barbed arrow-like weapons having strong medial rib and tapering blades. Finely curved barbs of cylindrical cross-section are at the middle region. A hole is present at the junction of the tang and the barbed portion. Probably the hole is for the purpose of tying the weapon to a shaft.

(Collection: Allahabad Museum, Allahabad, U.P.)
PLATE IV

Antennae swords from Kallur, Raichur District, Karnatak

(Collection: State Museum, Hyderabad)
PLATE V

TOP: WAR MATERIALS FROM SĀΝCHI BAS-RELIEF

(1) Sword, (2) Dagger, (3) Simple Axe,
(4) Elephant goad (enkuś), (5) Trident,

(Source: G.N. Pant - Studies in Indian weapons warfare)

BELOW: VEDIC ARROWHEADS

(1) Sucimukha, (2) Khurapra, (3) Ardhacandra,
(4) Batsadanta, (5) Gopuccha, (6) Aramukha,
(7) Karanika, (8) Kākatunda, (9) Valla,
(10) Dibivalla.

(Conjectural drawings by the present scholar)
PLATE VI

TOP: WEAPONS ON PUNCH-MARKED AND TRIBAL COINS

(1) Arrows round a wheel, (2) Cakra, (3) Simple bow with arrow, (4) Curved arrow, (5) Elephant goad (?), (6) Battle-axe (?), (7) Trident with battle-axe, (8) Spear, (9) Human figure carrying sword and shield, (10) Curved arrow.

(Source: G.N. Pant - Studies in Indian weapons and warfare).

BELOW: WEAPONS FROM THE SCULPTURE AT UDAIGIRI

(1) Straight sword, (2-3) Tridents, (4) Arrow, (5) Shield, (6) Thunderbolt (vajra), (7) Simple bow.

(Source: G.N. Pant - Studies in Indian weapons and warfare).
PLATE VII

WEAPONS ON GUPTA COINS

First row from the top : Different types of spears.
Second row from the top : Different types of battle-axes.
Third row from the top : Different types of bows and arrows.
Fourth row from the top : Spear and different types of swords.

(Source : G.N.Pant - Studies in Indian weapons and warfare).
PLATE VIII

AN INSCRIBED BOW OF EARLY 17TH CENTURY A.D.

(Collection: National Museum, New Delhi)
PLATE IX

BOWS AND ARROWS OF 19TH CENTURY A.D.

(Collection : State Museum, Hyderabad)
PLATE X

WEAPONS OF GURU GOBINDA SINGHJI (c.1675-1708 A.D.)

(Collection: Central Sikh Museum, Amritsar)
PLATE XI

SPEARS AND LANCES OF 19TH CENTURY A.D.

(Collection : State Museum, Hyderabad).
PLATE XII

A FEW WEAPONS USED BY THE SIKHS OF 17TH-18TH CENTURY A.D.

(Collection: National Museum, New Delhi)
PLATE XIII

SPEARS, BOWS AND BOOMERANGS OF 18TH CENTURY A.D.

(Collection: The Government Museum, Pudukkottai, Tamil Nadu).
PLATE XIV

MĀROO OR BUIJ-DHIR OF 18TH CENTURY USED BY THE MARATHAS

(Collection: National Museum, New Delhi)
PLATE XV

MUGHAL WEAPONS

1) Shāmsher : A sword having slightly bent blade.
2) Khadā : A straight sword.
3, 3a) Guptis : Swords within walking sticks
4) Jamdhār : A double edged broad dagger with 'H' shaped hilt.
5) Khanjar : A curved dagger with triangular shaped hilt.
6) Jamkhak : A simple curved dagger.
7) Bāk : A curved knife.
8) Jhaṃbāwa : A curved dagger with simple hilt.
9) Kātārā : A long and narrow dagger similar to a Jamdhār.
10) Nar sing-moth : A short and narrow dagger like a Jamkhak but the hilt differs.
11) Kaman : A simple bow.
12-13) Takhash Kaman & Tīr : A small bow and the arrow.
14a) Tīr : A simple arrow
14b) Paikarkhash : The arrow-drawer
15) Tarkash : The quiver
19-20) Sainthi and Selara : Varieties of spears.
21) Sushbur : A club meaning lung-tearer.
22) Tabar : The battle-axe.
23) Gurz : A kind of mace.
24) Zaghnal : A battle-axe with crow-bill type head.
25) Cakra : A ring like weapon with sharp outer edge.
27) Tarangala : Use not known. Probably used by the cavalry men.
28) Kard : A kind of knife.

(Source : Blochmann - Āin-i-Ākbari)
PLATE XVI

(Left to Right)
Khanjarā, Jambiā, Peshkabja and Kātār of 18th century A.D.

(Collection: State Museum, Hyderabad.)
PLATE XVII

Teghā swords of 18th century A.D.

(Collection: State Museum, Hyderabad)
PLATE XVIII

Top: Battle-axe of Nadirshah.

Below (L to R): Khand of Aurangzeb,
Sword of Tipu Sultan,
Dagger of Aurangzeb.

(Collection: National Museum, New Delhi)
PLATE XIX

Sword of Netaji Subhas Chandra Bose

(Collection: National Museum, New Delhi)
PLATE XX

Quāmā with horn hilt; blade double-edged, grooved and tapering to the point. (18th century A.D.)

(Collection: State Museum, Hyderabad)
PLATE XXI

Daggers with Jade-hilt, studded with precious stones of 18th century A.D.

(Collection: State Museum, Hyderabad)
Left to right:

1. Gurgaz with multi-bladed head, basket hilt and spike. (18th century A.D.)
2. Gurz made of steel. (18th century A.D.)
3. Gurz made of steel. (18th century A.D.)
4. Māru with two-pronged blade on either side and the handle in the middle. (18th century A.D.)

(Collection: State Museum, Hyderabad.)
PLATE XXIII

Left to Right:

1. Parasu with handle and blade made of steel. Handle has a gupti inside. (18th century A.D.)

2. Tabar with blade pierced and spike above. The handle has a gupti concealed inside. (18th century A.D.)

3. Jaghnol with crow-bill type blade. The handle has a gupti inside. (18th century A.D.)

4. Jaghnol with crow-bill type double blades, a disc and spike above. The handle has a gupti inside. (18th century A.D.)

(Collection: State Museum, Hyderabad)
Tulf-i-khar, the curved sword with the basket hilt and spike. The blade is dented and forked. (18th century A.D.)

(Collection : State Museum, Hyderabad)
PLATE XXV

Persian-type sword, Talwär of c.17th century A.D.

(Collection: State Museum, Hyderabad)
PLATE XXVI

RAJPUT SWORDS

Left: Sakelā blade with scabbard of late 17th century A.D.

Right: Kirk Narduban of c 1750 A.D. of Jaipur.

(Collection: National Museum, New Delhi)
PLATE XXVII

Studding of jewels on the hilts of swords of early 19th century A.D. The inscription gives the owner's name as Nizám, the ruler of Hyderabad State.

(Collection: State Museum, Hyderabad)
PLATE XXVIII

STRAIGHT SWORDS

Left: Pāṭā with gauntlet hilt which is carved with figures of birds and floral design. The blade is tapering and double-edged. The blade is inscribed with Qurānic verses and the parasol insignia in gold. (early 18th century A.D.)

Right: Pāṭā with gauntlet hilt chiselled and decked with animal figures. The blade is double-edged and tapering. (18th century A.D.)

(Collection: State Museum, Hyderabad)
Left to Right:

1. Khanda with basket hilt. The hilt and reinforcement are decorated with gold inlay. The hilt has a spike above and velvet padding inside. The blade is straight and tongue-shaped. (18th century A.D.)

2. Khanda with ordinary Indo-Muslim hilt and the straight spoon-shaped blade. (18th century A.D.)

3. Khanda with basket hilt, chiselled and gold-plated. This has reinforcement on the upper edge only. (18th century).

4. Khanda with basket hilt made of steel. The hilt is padded inside and a spike above. The blade is reinforced, double-edged and tapering. (18th century A.D.).

(Collection: State Museum, Hyderabad)
PLATE XXX

Chiselled workmanship on the hilts and blades of swords.

(Collection: State Museum, Hyderabad)
PLATE XXXI

Close-up view of the gold-inlay on the hilt.

(Collection: State Museum, Hyderabad)
PLATE XXXII

Hilt of a sword with gold 'Tahnishan' work, i.e., inlay of gold or silver wire in deep cuttings.

(Collections: State Museum, Hyderabad)
PLATE XXXIII

Close-up view of the inscribed section of the blade.

(Collection: State Museum, Hyderabad)
Ivory inlaid elephant goad of Rājasthān, c 1750 A.D.

(Collection: National Museum, New Delhi)
PLATE XXXV

Decorated Gun-powder flasks.

(Source: G.N. Pant - Studies in Indian weapons and warfare)
PLATE XXXVI

Ivory Gun-powder flask of early 18th century A.D.

(Collection: National Museum, New Delhi)
PLATE XXXVII

Decorated Ivory Gun-powder flask of late 17th century A.D.

(Collection: National Museum, New Delhi)
Decorated upper, middle and lower fittings of the scabbards.

(Source: G.N. Pant - Studies in Indian weapons and warfare)
PLATE XXXIX

Matchlocks and Blunderbuss

Left to Right:

Left - Country made gun (matchlock) with wooden butt and barrel attached to the stock by numerous broad bands of brass. The barrel is inscribed. The inscription reads 'Asaf Jäh'.

Middle - Country made Matchlock with a heavy wooden butt and long barrel attached. It is inscribed and the inscription reads 'Sarkār Nizām Āli Khān Bāhādur, 1193 H'.

Right - The Blunderbuss (flintlock gun) of 19th century A.D.

(Collection: State Museum, Hyderabad)
PLATE XL

Top : Mounted Cannon of c. 1780 A.D.

Below : Muzzle-loading gun with damascened barrel of the Mughals of c. 1700 A.D.

(Collection : National Museum, New Delhi)
PLATE XLI

Left - Flintlock gun (Banduq) with gold-work on the barrel and ivory inlay on the butt of 19th century A.D.

Right - Flintlock pistol (Tamânchâ) with gold workmanship of 19th century A.D.

(Collection: State Museum, Hyderabad)
PLATE XLII

Mahārājā Krishnachandra's cannon.

(Collection: Victoria Memorial Hall, Calcutta)
A Cannon of 19th century A.D. mounted on wheels. The monogram RV is inscribed. The crown insignia is also there.

(Collection: State Museum, Hyderabad)
Ākbar's machine for cleaning guns. His Majesty Ākbar invented this machine from his practical knowledge. By the motion of the wheel 16 barrels may be cleaned in a short time. The wheel is turned by a bullock.

(Source: Blochmann - Āin-i-Ākbarī)
SOME INDIAN SHIELDS AND ARMOURS

Armours may be called defensive weapons. These defensive weapons are shields, coat of mails, helmets, hand-guards, neck-guards etc. Here the Plates XLV to LIII represent a few armours used by the Indian soldiers. In a museum of war materials different types of armours may be collected, or replicas may be constructed on the basis of available descriptions in different books and records, paintings, sculptures and other archaeological evidences. With the changes in war techniques the nature of these defensive weapons have also changed considerably or became out of use. These armours may be presented before the visitors in a chronological order to give them an idea about the nature, designs, materials used, methods of uses and the evolutionary changes that took place. Charts and drawings are also helpful for this purpose. Armours used by the war animals can also be presented in a separate gallery or at a separate corner in the same gallery.
30. Qamchi-Kard : A whip with a handle.
32. Kaman : An unstrung bow.
33. Kamtha or Kaman-i-qurohā : A bow for clay bullets.
34. Tufak-i-dahan : A tube like weapon. Blochmann described it as a pea-shooter.
35. Pushtkar (?) : It is not described by anybody.
37. Khar-i-mahi : It means fish-spine but its use not known.
38. Gobhan : A sling.
40. Sipār : A kind of shield.
41. Dhāl : Another kind of shield.
42. Phāri : A plane cane shield.
43. Dubalgha : A kind of helmet.
44. Ghughuwā : An one piece mail-coat for head and body.
46. Zirih : A common mail-coat.
47. Bagtār : A mail-coat with breast-plate.
49. Chār-āinā : The armour with breast-plate, back-plate and two side-plates.

(Source : Blochmann - Āin-i-Ākbarī)
PLATE XLVI

Mughal armours

50. Kothi: A coat with plates and helmet.
51. Sadiqi: A simple coat armour.
52. Angirakhā: A long coat worn over the armour.
54. Chihilqād: A doublet worn over the armour.
55. Dastwānā: A long glove.
56. Mozā-ī-āhani: A small iron stocking. The large one is called Rak.
57. Kajam or Kajem: A mail covering for the back of the horse.
58. Artak-i-Kajem: The quilt over which the Kajem is put.
59. Qashqā: The armour for the protection of horse's head.
60. Kantha-Sobhā(?): Blochmann described it as neck-guard. The figure clearly represents a spear. Probably the term has been wrongly put by Blochmann.

(Source: Blochmann - Ain-i-Akbari)
Khud Dabalgah or Top, an inscribed Mughal helmet of c.1750 A.D.

(Collection: National Museum, New Delhi)
Mughal arm and foot guards of early 18th century A.D. These are made of steel attached to over a quilted velvet.

(Collection: National Museum, New Delhi)
Rajput body armours of early 17th century A.D.
These are of damascened steel and profusely decorated.

(Collection : National Museum, New Delhi)
Three different types of shields from Ajanta Paintings

(Source: G.N. Pant - Studies in India weapons and warfare).
PLATE LI

A South-Indian shield of early 17th century A.D. showing pattern welding work.

(Collection: National Museum, New Delhi)
PLATE LII

Decorated shields

Top: (Left to Right) - Bamboo, Damascened steel, Lacquered work.

Below: (Left to Right) - Gold-plated steel, Rhinoceros skin, Hide.

(Collection: National Museum, New Delhi)
PLATE LIII

A Rajasthani shield of late 17th century A.D. depicting hunting scenes.

(Collection: National Museum, New Delhi)
A FEW DRESSES AND UNIFORMS OF INDIAN HEROES

Plates LI to LXIV represent a few dresses and uniforms used by the Indian heroes. A museum of war materials can collect original uniforms or prepare replicas according to the designs and descriptions available from different sources. These uniforms can be displayed with the help of full size models of soldiers and national heroes in a chronological order mentioning the regiments or the forces used them. These varieties of uniforms of various colours and designs displayed in a gallery will give a comprehensive idea about the nature, colour, evolutionary changes and the usefulness of uniforms and surely give an insight into the subject.
PLATE LIV

A Rājput Sepoy of 17th century A.D.

(Collection: 1st Bengal Battalion NCC HQ, Calcutta)
PLATE LV

A Mughal Sepoy of 17th century A.D.

(Collection: 1st Bengal Battalion NCC HQ, Calcutta)
PLATE LVI

A Hindu Sepoy of Maratha Army of 18th century A.D.

(Collection: 1st Bengal Battalion NCC HQ, Calcutta)
PLATE LVII

A Mārātha Sepōy of c. 1773 A.D.

(Collection: 1st Bengal Battalion NCC HQ, Calcutta)
PLATE LVIII

Maharana Pratap Singh

(Collection: 1st Bengal Battalion NCC HQ, Calcutta)
PLATE LIX

A Sepoy of Mahārājā Ranjit Singh's Army

(Collection: 1st Bengal Battalion NCC HO, Calcutta)
PLATE LX

A General of Mahārājā Ranjit Singh's Army (1802-1829 A.D.)

(Collection: 1st Bengal Battalion NCC HQ, Calcutta)
Top: Baba Banda Bahadur Ji
(Collection: Central Sikh Museum, Amritsar)

Below: A Coat of Arms of the Tondaiman rulers of Pudukkottai.
(Collection: Government Museum, Pudukkottai, Madras)
PLATE LXII

Bābā Phul Singh Ji Ākālī

(Collection: Central Sikh Museum, Amritsar)
PLATE LXIV

Bābā Deep Singh Ji Martyr

(Collection: Central Sikh Museum, Amritsar)
Plates LXV to LXX represent some fortified areas and fortified palace in India. In a museum of war materials, a gallery can be arranged with the models of still existing forts in India and with maps, photos, charts, and models prepared according to the descriptions available in records and archaeological findings of those forts and fortified places that existed in ancient and medieval periods in India. If displayed chronologically, these photos, charts, models, etc. are sure to arouse interest and inquisitiveness among visitors, civil engineers, and architects. The study of the forts and fortified areas since early days in India along with their plans, nature of construction and administration, materials used, etc. makes interesting inroads in the military engineering skill, storage arrangements, nature of war, planning of operations, and the evolution of military culture in India.
A folio from Bābāramā showing a fortified Mughal Palace, 1597 A.D.

(Collection: National Museum, New Delhi)
PLATE LXVI

Fortifications of Rājgir, Bihār.

(Source: G.N. Pant - Studies in Indian weapons and warfare)
PLATE LXVII

Fortified area of the citadel (mound AB) and cemeteries at Harappa, 1946.

(After Wheeler, Archaeological Survey of India. Source: G.N. Pant - Studies in Indian weapons and warfare)
PLATE LXVIII

Sketch plan of Gingee fort.

(Source: G.N. Pant - Studies in Indian weapons and warfare)
PLATE LXIX

Western gateway No. I of Sisupalgarh, Orissa (1948)

(Source: G.N. Pant - Studies in Indian weapons and warfare)
South face of Mangalore Fort when besieged in 1783-84.

SOUTH FACE OF MANGALORE FORT WHEN BESIEGED IN 1783-84
A FEW FORMS OF BATTLE-FORMATIONS (VIUHAS)

Plates LXXI to LXXVIII depict some of the battle-formations used in the Kurukshetra war. In a museum of war materials, the gallery showing the models and charts of various battle-formations used and deployed in different operations of historical importance since early days in India must give some insight about the tactical conduct of battles. If animated models can be prepared to show attacks and defences in different formations then this gallery will surely be very popular to the visitors.
THE LEGENDS

- A commander on the chariot
- Chariot
- Elephant
- Horse
- Foot-soldier
- The arrow-head indicates the general line of approach
PLATE LXXI

Top: Garura-vyūha - The figure depicts the formation adopted by Bhīṣma on the third day of the Kurukṣetra battle.

Below: Cakrasakata-vyūha - The figure depicts the outline and the position of the royal gentries as indicated in the narratives of the Mahābhārata.

(Source: Major P. Sensarma - Kurukṣetra War - A Military Study)
PLATE LXXII

Top: Makara-vyūha - The figure depicts the formation adopted by Karna on the 16th day of Kurukṣheta battle.

Below: Kraunca-vyūha - The figure depicts the formation adopted by the Pāṇḍavas on the 2nd day of Kurukṣheta battle.

(Source: Major P. Sensarma - Kurukṣheta War - A Military Study)
PLATE LXXIII

Top: Ardhacandra-vyuha - The figure is based on the description given in Mahabharata about the position of the royal gentries only.

Below: Kraunca-vyuha - The figure depicts another form of Kraunca-vyuha formation adopted by Bhismma on the 6th day of Kurukshetra battle.

(Source: Major P. Sensarma - Kurukshetra War - A Military Study)
PLATE LXXIV

Top: Ardhacandra-Vyuha - The figure is the another form of Ardhacandra-vyuha formation based on the available description in the Mahabharata about the position of the royal gentries only.

Below: Syena-vyuha - The figure depicts the formation formed by the Pandyavas on the 5th day of Kurukshetra battle.

(Source: Major P. Sensarma - Kurukshetra War - A Military Study)
Top: Sakata-vyūha – The figure depicts the formation adopted by Dronācāryya on the 11th day of Kurukṣetra battle.

Below: Ocean like vyūha – The figure depicts the formation organised by Kāma on the 17th day of Kurukṣetra battle.

(Source: Major P. Sensarma – Kurukshetra War – A Military Study)
Top : Sarbatomukha-vyūha - The figure is based on the available description in the Mahābhārata.

Below : Bajra-vyūha - The figure is based according to the description available in the epic. It is also known as Acala-vyūha.

(Source : Major P. Sensarma - Kurukshetra War - A Military Study.)
PLATE LXXVII

Top : Sarbatomukha-vyūha - Another form of Sarbatomukha-vyūha organised by Bhīṣma on the 2nd day of Kurukṣetra Battle.

Below : Bajra-vyūha - This is another variety of Vajra-vyūha.

(Source: Major P. Sensarma - Kurukṣetra War - A Military Study)
Top: Sringaṭa-vyūha - The figure depicts the position of the royal gentries as described in the Mahābhārata.

Below: Ocean like vyūha - It is another variety of Ocean like vyūha. This formation was organised by Bhiṣma on the 8th day of Kurukṣetra battle.

(Source: Major P. Sensarma - Kurukṣetra War - A Military Study)
SOME INDIAN BOATS AND SHIPS

The plates LXXIX to LXXXVII depict some Indian boats and ships of different periods. In a museum of war materials, boats and ships of different periods can be shown by preparing models and cutout models from available descriptions in books and records, photos, drawings, paintings, sculptures, coins etc. The charts and diagrams will also be useful to show the names of different parts of these objects, their gradual evolution due to advancement of science and technology, materials used for their preparation, the fuel used and other interesting informations if any.
PLATE LXXIX

Mohenjo-daro boats (c. 3000 B.C.)

(Source: R.K. Mookerji - A history of Indian shipping)
Boats from Ajantā paintings.

The plate depicts the landing of Vijaya in Ceylon
(c.543 B.C.)

(Source: R.K. Mookherji - A history of Indian shipping)
PLATE LXXXI

Boats from sculptures

The plate depicts Indian Naval adventures as depicted on the sculptures of Barabudur.

(Source: R.K. Mookerji - A history of Indian shipping)
Boats from sculptures

The figures depict the boats as represented on the sculptures from the Sānchi Stupas.

(Source: R.X. Mookerji - A history of Indian shipping)
PLATE LXXXIII

Top : A sea-going vessel from Ajantā paintings.

Below : The royal pleasure-boat from Ajantā paintings.

(Source : R.K. Mookerji - A history of Indian shipping)
A SEA-GOING VESSEL

THE ROYAL PLEASURE-BOAT
PLATE LXXXIV

Boats as represented on Indian coins.

The figure(s) depict some Andhra Ship-coins (c. 2nd century A.D.)

(Source: R.K. Mookerji - The history of Indian shipping)
PLATE LXXXV

Mughal boats from Baburnama (1597 A.D.)

(Collection: National Museum, New Delhi)
Some Indian boats of 17th century A.D.

Top: Patella - This is a great flat-bottomed vessel of Bengal and is very strongly built. Each such boat can carry about 5000 maunds of load. (1 md = 38 Kgs. approximate).

Middle: Oloako - This type boats are rowed some with four, some with six oars and ply for a fare.

Bottom: Budgaroo - It is a pleasure boat for royal gentries.

(Source: R.K. Mookerji - The history of Indian shipping)
Top: Purgoos were used for loading and unloading ships. They were reverine boats and were seen for the most part between Hugli, Pipli and Balasore.

Middle: Boora: This was very floaty, light boat, rowing with twenty or thirty oars. Booras were used in rivers of Bengal and also served as tow-boat for the ships bound up and down the river.

Bottom: Man-of-war prow - These boats were used in the Malaya Archipelago.

(Source: R.K. Mookerji - The history of Indian shipping)
PURGOO

BOORA

MAN-OF-WAR PROW
PLATE LXXXVIII

Maratha Grabs and Gallivats attacking an English ship.

(Source: R. K. Mookerji - The history of Indian shipping)
Plates LXXXIX and XC represent the camp lay-out and a few types of tents used during the time of emperor Akbar. In a museum of war materials different types of living accommodations, cook-houses, dining-halls, stores, latrines etc. used by Indian soldiers through ages, during peace time and in field areas can be shown with the help of charts, diagrams, photos and models to give an idea about the mode of living and way of life of the soldiers.
a, b, c, d, are the main roads and f, g, are the bazars. The main bazar is laid out into the form of a wide street, running through the whole extent of the army, now on the right, now on the left of the private audience hall (Dewān-khāṣ).

1. The Imperial Harem.
2. Open space with a canopy (Shamyana).
3. Private Audience Hall (Diwān-i-khāṣ).
4. The great camp light (Ākas-diyā).
5. A turret on the top of which the band plays (Nāqqūrākhānā).
6. The place where the saddles were kept (Zin-khānā).
7. The imperial stables (istābal).
8. Tents of the superintendents and overseers of the stables.
9. Tents of the clerks of the elephant stables.
10. Imperial office (Daftār).
11. Tents for Palkis and carts.
12. Artillery tents (Top-khānā).
13. Tent where the hunting leopards were kept (Citā-khānā).
14. Tents of Akbar's mother, Humayun's sister and prince Dauyal.
15. Tent of Jāhāngir, to the right of the imperial Harem.
16. Tent of Sultan Murād, to the left of the imperial Harem.
17. Store-houses and workshops (Buyutai).
19. Tent for the perfumes (Khusbu-khānā).
20. Tent for storing mattress (Tosok-khānā).
21. Tent for the tailors etc.
22. Wardrobe (Kurkyara-khānā).
23. Tent for the lamps, candles etc. (Ciragh-khānā).
24. Tent for keeping holy Ganges-water (Ābdar-khānā).
25. Tent for preparing Sarbat and other drinks.
26. Tent for storing Pan leaves.
27. Tent for storing fruits (Mewā-khānā).
28. Tent for Imperial plates (Rikāb-khānā).
29. The Imperial kitchen (Matbakh).
30. The Imperial bakery (Nanba-khānā).
31. Storeroom for spices (Havej-khānā).
32. The Imperial guard.
33. The arsenal (Qur-khānā).
34. Women's apartment.
35-41. Guard-houses.

Round about the whole area the nobles and mansabdārs with their contingents pitched their tents.

(Source: Blochmann - Āin-i-Ākbari)
The Imperial tents.

1. Baragh: It is as large to accommodate more than 10,000 men. It takes a thousand farrashes, a week time to erect with the help of machines. There are generally two door poles fastened with hinges.

2. Do-ashiyana Manzil: It is a two storied house raised upon 13 pillars, 6 yards in height, which support a wooden platform; and into this pillars of 4 cubits in length are fixed with bolts and nuts forming the upper storey.

3. Chubin-rewati: It is raised on ten pillars. They go little into the ground and are of equal height, except two, which are a little higher, as the cross-beam rest upon them. The pillars have, above and below, a triangular piece of wood (dasa) fixed into the angle formed by the vertical beam and the cross-beam, to keep them firm, and several rafters pass over the dasas and the cross-beam, the whole being kept tightly together by clamps, bolts and nuts. The walls and roof consist of mats. There is one door or two.

4. Zamindaz: The common conical tent with one centre pole tied to pegs (wooden or iron) in the ground.

5. Dusurugha: It is the Zamindaz with two poles.

6. Mandala: This tent is composed of five awnings joined together, and is supported by four poles. Four of the awnings are let down so as to form a private room.

7. Ajaibi: It consists of nine awnings on four pillars. Five of the awnings are square and four tapering; sometimes they make it so as to contain one division only, supported by a single pole.

(Source: Blochmann - Ain-i-Akbari)
Maps of India

Plates XCI, XCII and XCIII show the areas under the control of different rulers in India during 18th and 19th century A.D. In a museum of war materials similar other maps can be shown describing the occupied areas in India by different rulers since early days. The maps, relief-maps, charts, models, paintings etc. can also be used to show and describe important battles and campaigns, physical features of the terrain, road-ways, railways, water routes, telegraphic lines, climatic peculiarities, objects of military importance etc. This gallery will be very helpful to study military strategy and geography including its history.
PLATE XCI

India 1795

The map depicting the East India Company's territory and British protected States.

(Source: Brigadier Rajendra Singh P.S.C. — The Grenadiers — A regimental history)
PLATE XCII

India 1850

The map depicts the East India Company's territory in the year 1850.

(Source: Brigadier Rajendra Singh P.S.C. - The Grenadier - A regimental History)
PLATE XCIII

India 1857

The plate depicts the British territory in the year 1857.

(Source: Brigadier Rajendra Singh P.S.C. - The Grenadiers — A regimental history)
Miscellaneous
Agreement between Nawāb Nājāmuddulā and East India Company

(Collection: Victoria Memorial Hall, Calcutta)
Sec. Considering the weight of evidence of the
Company's Baronne, made known to the
Company's Delegate. Wherefore the
Baronne, whose duty it is to report to the
Company's Delegate. It is agreed that
the Governor and Council of the
Company's Delegate shall be under the
same authority and jurisdiction as the
Governor and Council of the
Company's Delegate.

It is further agreed that the Governor and
Council shall be under the jurisdiction of
Governor and Council of the
Company's Delegate.
Mughal ensigns and war musical instruments,
during Akbar's reign.

(Source: Blochmann: Ain-i-Á“kbari)
In support of and to justify the suggested building plan, the following points have been considered:

(a) It is obvious that the curator's office at the centre of the building will help much in all round control and command over the museum.

(b) Display galleries and administrative blocks have been separated with separate exit and entrance from the other portion of the building with the idea that when galleries and office will remain close normal public services like lectures, seminars, museum games, cinema shows etc. can be performed till late hours.

(c) Space for laboratory, photo stores, studio etc. containing valuable documents and inflammable articles have been allotted at the North-West corner of the building near the water tank as a precautionary measure against accidental fire and to meet other security problems.

(d) The museum store has been placed close to curator's office and the workshop with the idea that the curator will be able to keep close contact with these two departments to facilitate research works and to select materials for exhibitions from the store and fabrication of exhibits in the workshop or use of such materials for any educational programme. Again due to the presence of store in between the workshop and the display galleries, the disturbing sound of the workshop will not reach the visitors' ears.

(e) The short range and the open space at the north of the building can be utilised for field-craft training, demonstrations, firing practices etc.

(f) The utilities of canteen and first-Aid post near public services area and the security room near the gallery service area are obvious and need no explanation.
SUGGESTED BUILDING PLAN OF A MUSEUM OF WAR MATERIALS