

# **DHANURVEDA**

(A Veda relating to the Art / Science of Archery)

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***DHANURVEDA from the BRHAT SARNGADHARA PADDHATI***, a 15th Century treatise in Sanskrit on 'The Science of the Horn Bow' by Sarngadhara. Translated from the Sanskrit edition by Peter Peterson, Bombay, 1888.

*This translation was commissioned by ATARN from Dr. B. Chakravarti, M.A., Ph. D. Member of the Asiatic Society (Executive Council), Kolkata, (2000-2001), Charter-Member, Smithsonian National Museum of the American Indian, Washington DC. President, Bangala Bhasa-Samskrti Samsad, Kolkata. Copyright reserved.*

*The paragraph numbers commencing '1714' in the text correspond to those in the Sanskrit text.*

## The First Instructor

### **1714**

1. I have composed this work in brief by extracting the excellent utterances of God (Lord Siva) found in his Dhanurveda (the Veda relating to the science of Archery and wise instructions of (Sage) Vyasa.

### **1715**

2. Nobody but Sarngadhara is considered to be an expert in the knowledge of the Dhanurveda, because he got his skill (in holding, aiming and shooting etc.) and judgment (for wind velocity and speed of the moving target etc.) in a dream at night from the Lord Siva Himself.

### **1716**

3. So, one should not harbour any doubt about this book (because it has been revealed in a dream) just because some of its contents appear

elsewhere in other works by other, more clever archers like Cintamani (viz. Vira-Cintamani).

#### **1717**

4. Archers (and warriors) should practise and sharpen their skill (weapon training) in such a way that they are able to perform their duties and conquer the enemy.

#### **1718**

5. If just one famous archer stays in a city, then the enemies will remain at a distance just as animals stay far away from the den of a lion.

#### **1719**

6. Now, the principles of selection of the trainees for weapon training will be discussed. After examining the Trainee (disciple) thoroughly, the preceptor will give a bow to a Brahmin disciple, who is not greedy, cunning, ungrateful or foolish.

#### **1720**

7. He will give a 'dhanu' (meaning a bow) to a Brahmin disciple, a khadga (meaning a sword) to a Ksatriya, a 'Kunta' (meaning a lance) to a Vaisya and a 'Gada' (meaning a mace) to a Sudra.

#### **1721**

8. Fighting with hands (Bahuyuddha) has its seven divisions. These are carried out with a bow (dhanu) or a circular missile (cakra) or a lance (kunta) or a sword (khadga) or a knife (churika) and mace (gada) and lastly by fighting with the bare hands only.

#### **1722**

9. A preceptor is known by the name 'saptayuddha' if he is well-versed in seven forms of fighting; a preceptor is a 'Bhargava' by name when he is well-versed in four types of fighting. An expert in two forms of fighting is known as 'yodha' and if one is versed in only one type of fighting, one is known as 'Ganaka'.

#### **1723**

**10.** People born when the Moon is in the Constellation of Hasta, Punarvasu, Pusa, Rohini, Uttara (in three positions), Anuradha, Asvini, Revati and also on the tenth days of the Moon Dasami are fit for Archery Training.

**1724**

**11.** People born in the third, sixth, seventh, tenth or eleventh day of the lunar fortnight are supposed to be fit for conducting all types of work.

**1725**

**12.** The third, fifth, seventh, tenth, twelfth and thirteenth day of the lunar fortnight are accepted to be auspicious.

**1726**

**13.** Sundays, Fridays and Thursdays are taken to be very suitable for starting any work relating to weapons (i.e. weapon training).

**1727**

**14.** On these days the preceptor, following the rules of the Vedas, will arrange offering of oblations and conduct sacrifices and offerings to Deities and Heroes, and gifts to the learned and the poor. Thereafter he offers weapons to his disciples.

**1728**

**15.** A feast should be arranged for the Brahmanas as well as for the maidens. The ascetics and other devotees of Lord Siva are to be worshipped, with sincere devotion.

**1729**

**16.** A trainee of Archery is to worship his trainer (preceptor) offering him food, drinks, dress and ornaments along with scented things flowers and garlands.

**1730**

**17.** The trainee will observe a fast and wearing only a deerskin, will pray for the bow from his preceptor folding his hands.

### 1731

18. Then following the utterances of Siva, the preceptor should sanctify the limbs of his disciple, putting his hands on them, by uttering appropriate mantras and should perform other rituals for removing the obstacles and sins of his disciple.

### 1732

19. The Lord (Siva) will be ritually imagined to have been placed upon the top-knot of the disciple's hair at the crown, Lord Kesava will be so placed on the joint of the two arms, Brahma in the navel and Ganesa on his thighs.

### 1733

20. By uttering the mantra 'Om' 'Hom' Lord Sankara will be worshipped on the top-knot at the crown. On the arms Kesava will be invoked, with the similar mantra and Brahma will be prayed to in the navel, and on the two thighs the protection of Lord Ganesa will be invoked, chanting the following words at each place respectively:

*Om Hom Sikha Sthane Sankaraya namah,  
Om Hom Vahvoh Kesavaya namah,  
Om Hom Nabhimadhye Brahmane namah,  
Om Hom Janghayor Ganapataye namah*

### 1734

Such placement (of the guardian deities) on the limbs should be done in order to derive welfare and well-being of the disciple and to prevent anyone from doing harm (to him) by chanting inauspicious mantras.

### 1735

21. The preceptor should offer a bow and arrows to the disciple which are fit to be used by a human being and the arrows should be sanctified with mantras and the teacher would pass the mantra from one arrow to the other according to the rules of Vedas.

The targets during the training (from easier to more difficult ones)

### **1736**

22. First of all an archer should learn how to pierce a flower with a leaf but without any fruit, and then he will pierce a leaf with a fruit, and then a fish.

### **1737**

23. Then the preceptor will make his disciple pierce an animal (mansavedha). These are the three types of piercing. By practising shooting of arrows gradually at targets in such manner the hero will achieve the skill to pierce his targets more effectively and efficiently.

### **1738**

24. The archer will be happy by taking his position ahead of a running animal, at the same time aiming to pierce the animal. He is at ease in such a position and he achieves success.

### **1739**

25. If the arrow is cast in the southern direction, there will be great quarrel and the archer will go to a foreign land. If it is cast in the western direction, the archer will get wealth and cereals. If the arrow is cast to the northern direction the hero will get good results.

### **1740**

26. If the arrow is cast to the northeastern quarter (Isan), the downfall of the enemy will ensue. If it is cast in the opposite direction, different types of auspicious happenings may take place. In such activities with weapons, a hero will achieve happiness, nourishment and success in weapon training.

### **1741**

27. The three types of piercing should be done accompanied by the sound of a conch-shell and drum, and then the hero should entrust his bow and arrow to his preceptor by bowing down to him and offering his obeisance.

### **The Measurement of Bow**

### **1742**

**28.** The first form of bow is a serviceable or proper type. The second one is a bow which is used in fighting (battle). A bow which is less powerful in weight and length than the arms of the hero is regarded as an auspicious one.

### **1743**

**29.** The life of an archer is more precious than that of a bow. An archer, who is overburdened by his bow, never hits the target.

### **1744**

**30.** A bow which can be drawn by an archer with ease (by his own strength) is considered to be auspicious. The bows of the Gods are heavier and superior to those of the human beings.

### **1745**

**31.** A bow measuring five cubits and a half is considered to be the best one and that type is called a 'divine one', and that was held by Sankara in ancient days.

### **1746**

**32.** Then the bow was taken by Parasurama and from him it came to Drona and then it was received by Partha from Drona, and thereafter it was taken by Satyaki.

### **1747**

**33.** During golden age (satyayuga) that divine bow was held by Mahadeva. In the silver age (treta yuga) it was held by Raghava. During the bronze age (dvapara yuga) it was taken by Drona, who was a Brahmana by caste.

### **1748**

**34.** The length of a hand is equal to the length of twenty-four fingers of the hand and a bow measures four such hand lengths (caturhasta) and this type is known to be the bow of a human being with all good signs.

**1749**

- 35.** A bow may have three, five or seven joints. A bow having nine joints is renowned by the name 'kodanda,' which truly is an auspicious one.

**1750**

- 36.** A bow having four, six or even eight joints should be discarded. But there are some bows which are more extended in size and are made by a new technique.

**1751**

- 37.** A bow should not be used if it is extremely old, or made of unripe materials, or used by one's kinsmen, or burnt, torn or spoiled inside or outside.

**1752**

- 38.** A bow without a string, or a bow in which the string is not suitably fitted, or an arrow with a fault or an arrow in which there are joints on the upper or middle or lower portion should not be used.

**1753**

- 39.** A bow made of unripe materials may break up. A bow in a very dilapidated condition loses its smoothness. A bow already used by one's kinsmen may always be an object of anxiety or dispute among friends and relatives.

**1754**

- 40.** A burnt bow causes a house to burn, and a bow having holes always brings defeat and destruction in war. Such a bow does not reach the target, external or internal.

**1755**

- 41.** If an inferior type of arrow is fitted to a bow, it may bring defeat in war. Moreover, if such an archer is being attacked, he cannot shoot back effectively.

### **1756**

42. A joint on the upper portion of a bow or even one on its lower side, causes destruction and loss of wealth. Bows without such defects are considered to be very effective for all types of activities.

### **1757**

43. The bow of Vishnu is named 'Sarngadhanu' and it is considered to be the best weapon. It was a bow, the measurement of which was seven times greater than an ordinary bow which is made by Viswakarma.

### **1758**

44. That bow remained untouched by anybody in Heaven, in the Nether Region or on Earth. It could only be used by the one (Divine Emancipated Being) who is the Lord of Lords.

### **1760**

45. Gradually, over many years, He created and extended the bow which is fit to be used by human beings. It measures six and a half vitasti (i.e. the span of the thumb and the middle finger when stretched fully, roughly measuring half a cubit) i.e. total three-and-a-half cubits in length. The bow serves all purposes.

### **1580**

46. A Sarnga-bow is successfully used by the soldiers on elephant back and the cavalry. For charioteers and foot soldiers, however, a bow made of Bamboo is more useful.

### The characteristics of a bow string

### **1761**

47. I shall narrate the characteristics of the bow string, and these are to be applied while making a string. Very light silken threads should be used.

### **1762**

48. The strings should be made of three round threads which are free from any joint, pure, fine, very soft and polished so that these threads can withstand attack in a war.

### **1763**

49. For want of silk thread, string can be made with intestines of a deer or with the intestines of a she-buffalo or a cow.

### **1764**

50. Fine strings are to be made with skin of a goat or gokarna (another variety of animal) which has just been slaughtered. The hair on the skin should be removed thoroughly.

### **1765**

51. Sometimes strings are prepared with the bark (outer skin) of mature bamboos (plants) and those strings are tied with silken threads for making strings that withstand adverse situations in war.

### **1766**

52. At the advent of the month of Bhadra (September) the bark of the Arka tree becomes commendable for making strings and hence hard and sacred strings should be made with it.

### **1767**

53. The threads which are obtained from the barks of the Arka tree are eighteen cubits in length and these should be made in triple-ply to make a proper string (for the bow).

### The characteristics of arrows

### **1768**

54. I shall narrate the auspicious characteristics of Arrows.

Arrows should neither be very heavy nor very fine. They should not be made of unripe materials which are grown on barren land. An arrow with small joints or having splits should be avoided.

The material for an arrow should be selected thus...

**1769**

**55.** The arrow should have matured joints, it should be made with fully ripe materials, the colour of the arrow is to be brownish and gathered at the right time. The material should be hard and round. The tree from which the arrow is to be made should grow on fertile land. [Such an arrow is commendable for the use of a king in battle.]

**1770**

**56.** The size of the arrow should be two cubits less one fist in length and its breadth will be like the little finger. This is the measurement of an arrow which is to be placed on the bow for drawing and discharging towards the target.

**1771**

**57.** The end of an arrow may be fletched with the feathers of crane (kanka), swan (Hamsa), sasada (A variety of bird), fisher bird (matsyada), heron (kraunca), cataka (kinkini), vulture (grdhra) and hen (kukkuta).

**1772**

**58.** Four feathers are to be attached to each arrow. The gap between two feathers should be six fingers.

**1773**

**59.** In the bow (Dhanu) named Sarnga, the gap between two feathers is to be of ten fingers and the four feathers should be firmly tied with hard threads made from intestines.

**1774**

**60.** There are three types of arrows – masculine, feminine, and neuter. Arrows which are flat and heavy in front are designated as ‘feminine, If flat and heavy in its lower portion it is termed as ‘masculine’.

### **1775**

61. If the top portion and the lowest portion of the arrow is of the same size, it is known as 'neuter'. Such an arrow is fit for practising (by trainees etc.) The female arrow hits a target at a distance while a male arrow can firmly pierce tough targets.

### The characteristics of the tip or arrowhead

### **1776**

62. The arrowhead should be made of pure iron. It should be sharp and pointed and without any sort of disorder. The head of the arrow should be painted with a coating of 'diamond' protective paste according to the proportion of the feathers (vajra means hard as diamond).

### **1777**

63. The head or tip portion of an arrow may be made of brass and its shape will be like that of a horse-shoe; or it may be like the tail of a cow or it may be of the shape of a half-moon. An arrow is called 'Bhalla' (i.e. a missile) when its head is as sharp as the tip of a needle, and again it is known as 'Dvibhallakam' (i.e., double missile) when there are two tips like the teeth of a heifer.

### **1778**

64. The arrowhead may be shaped in different forms according to the existing system of a country, such as 'Karnikam' or 'kakatundam' etc..

### **1779**

65. By the arrows (made of brass or purified iron) skin should be pierced; by razorblade arrows, the enemy's arrows (and his hands) may be severed, and by needle pointed arrows a shield or armour may be pierced, and an arrowhead shaped like half a moon should be used to sever the head of the enemy.

### **1780**

66. A spear-headed arrow may pierce the chest of the enemy, while a double speared arrow may pierce the string of his bow and counter his

(enemy's) arrows. Arrows made of iron may be countered by the arrows known as 'Karnika', and other targets may be pierced by arrows in the shape of the beak of a crow. The type of arrow named 'Gopuccha' is used for aiming at (and tearing off) the enemy flag.

#### **1781**

67. If an arrow is made of pure wood it is known by the name 'gopuccha' (meaning the tail of a cow). The tip of such an arrow is made of pointed iron measuring three fingers.

#### The methods of annealing arrowheads

#### **1782**

68. I shall narrate the process of annealing arrowheads. The following divine medicine is to be spread onto the head of the arrow so that it can pierce an unbreakable armour just like a leaf of a tree.

#### **1783**

69. Long pepper (pippali) and sulphur (kustha) and rock-salt (saindhava) should be ground by mixing urine of a cow while pounding, to prepare a paste. That paste should be rubbed on the weapon and then it should be heated on fire.

#### **1784**

70. The paste for annealing should not be very cold. If the arrow fails to pierce anything (i.e. hit the target) or if the arrowhead is one from which the yellow colour has faded, the paste should be applied to the tip and heated thereafter, and then the head of the arrow-head should be dipped in oil to remove the heat to make it especially effective.

#### **1785**

71. Five types of salt should be ground together and that compound is to be soaked in honey and paste of white corn (sveta sasya). The arrowhead is to be covered with such a paste and then heated over a fire.

#### **1786**

72. The arrowhead is to be annealed, and after heating, its colour will be like that of the neck of a peacock, i.e. a yellow colour when hot. Then it should be dipped into clear water for its permanent protection and strength.

Now the two types of rounds viz. Naracas i.e. all iron rounds and Nalika, known as 'rounds shot from the gun' (are being described)

**1787**

73. Naraca is a round totally made of iron. In some naracas, there are five broad wings and such rounds are always effective (in hitting the targets).

**1788**

74. Nalika is a form of round, shot from a weapon like the gun fitted with tube or barrel; it is used while a target is to be hit at a great distance, or in a war taking place in a high fort.

Hand position for drawing an arrow and position for releasing an arrow.

**1789**

75. 'Sthana' (the posture to be taken by a warrior while shooting), has eight forms, for performing different types of shooting and the holding and operation of the trigger or arrows by 'musti' meaning 'grip' has five forms, while the scoring areas of a target or 'vyaya's are also of five types.

The Position (Sthanas):

**1790**

76. If the left leg of an archer is stretched in front and the right leg is contracted at the knee and their distance measures two hand lengths (cubits), such posture of the archer is known by the term 'Alidham'.

**1791**

77. By stretching the right leg forward and contracting the left leg, the arrow goes far on release. This foot position of the archer is thought to be very special (or praiseworthy) and is known as 'Pratyalidham'.

### 1792

78. If the archer extends his legs equally and their distance is one cubit apart, he assumes the position known as 'visakhasthana', a position for shooting a difficult target.

### 1793

79. If the place on which the archer stands is not too uneven, his legs are to be placed at equal distance (for keeping balance) without making any movement, and fixing them in an uniform position. The body should be made bent to the left at least one cubit down.

### 1794

80. If the archer kneels down and his thighs are contracted, his position is known by the name 'Dardur akramam', meaning 'the movement of the frog'. This is a position by which an archer is sure to hit a difficult target.

### 1795

81. The stance or movement of an archer is compared to that of Garuda. When he moves forward by touching his left knee on the ground and then he contracts his right knee, and this is called the 'Garuda Kraman' position.

### 1796

82. A well-known position of sitting (cross-legged), known as 'padmasana,' is very auspicious for an archer.

### Release and shooting of arrows by a warrior.

### 1797

83. There are various forms of 'release', made by the archer by folding his fingers to secure his arrow and shoot from the bowstring such as 'pataka', 'vajramusti', 'Simhakarna', 'Matsari' and 'Kakatundi' etc.

### 1798

**84.** If the forefinger is extended and brought under the root of the thumb, the position of the grip is known by the name 'pataka'. This form of the grip is then applied by a shooter for shooting (rounds) at a distant target.

**1799**

**85.** If the thumb enters the gap between the middle finger and the forefinger then such a release is called 'vajramusti'. Such release is used when a thick arrow and all iron rounds known as 'naraca's are shot towards the target.

**1800**

**86.** If the tip of the forefinger is placed squarely on the nail of the thumb finger, then such a release is known by the name 'matsari'. Such a release is used to pierce a fine or thin target known as 'citra'.

**1801**

**87.** A release is known by the name 'kakatundi' (the face or the mouth of a crow) if the top portion of the thumb is placed on the tip of the forefinger. Such a release is to be used when an archer shoots his arrow into a thick target.

Methods of holding the bow and aiming the arrow

**1802**

**88.** There are three methods of holding a bow and aiming an arrow, namely (i) downwards; (ii) upwards and (iii) straight. Among these three methods, the archer adopts the particular one which is suitable to serve his purpose.

**1803**

**89.** The arrow aimed downwards can easily hit a target at a far distance. If the aim is straight, it will certainly pierce the target and if the aim is upwards, then by applying greater strength, the archer will invariably pierce his target.

Description of the 'Vyayah' (type of scores on hitting the target)

**1804**

**90.** If an arrow hits on the root of a target (i.e. outer ends), the score is known by the name 'kaisika'. If it hits the horn of the target (i.e. magpie) it is known by the name 'sattvikah'. If it hits the ear of the target (i.e. inner portion) it is known by the name 'vatsakarna' and if it hits the neck of the target (i.e. bull's-eye) it is known by the name 'Bharata'.

**1805**

**91.** If an arrow hits the shoulder of the target (at a great distance), the score for shooting of such an arrow is known by the name 'skandha'. Vyayas are of five varieties. In case of a mixed warfare (citra yuddha), arrows (shot being quick and many) hit the outer end of the target (i.e. 'kaisika') mostly, while the arrows hit the horn when aimed downwards to hit the target.

**1806**

**92.** If the target is pierced on the ear (inner part of the target), the score is known as, 'vatsakarna'. If it pierces the target deeply and firmly, it is known as 'Bharata' (bull's eye) and if it pierces the target at a great distance deeply and firmly the process is known by the name 'skandha'.

Targets and their varieties:

**1807**

**93.** Targets can be of four varieties – (1) Sthir i.e. fixed or stationery target (2) Cala i.e. moving target (3) A moving archer shooting at a stationary target (4) Dvayacala – where the archer as well as the target both are moving.

**1808**

**94.** The archer who aims at the target by making his mind motionless and steady and pierces the three types of targets is known by the term 'sthiravedhi' meaning 'an archer whose aim never fails'.

**1809**

**95.** If an archer, while motionless himself, successfully pierces a moving target the preceptor as well as the wise call (such person 'calavedhi') and the target by the name 'calalaksya' meaning 'a moving target'.

### **1810**

- 96.** If an archer is on the move but fixes his mind on a steady target then the target will be known by the name 'calacala' meaning 'moving yet steady'. This is a process of shooting which is blameless and beyond ordinary measure.

### **1811**

- 97.** When an archer is on the move himself and also aims at a moving target, then the target (and situation) is known by the name 'dvayacala' meaning 'two moving elements (the archer as well as the target)'. To pierce such targets one has to practise very hard.

### **1812**

- 98.** If an archer practises archery hard, he can unfailingly hit a distant target with his arrow, and with one arrow he can pierce many targets. Through hard practice an archer achieves firm grip and ability to aim and shoot arrows quickly.

### **1813**

- 99.** Undergoing hard labour, an archer realises the art and techniques of different types of warfare, and through it he achieves victory. Hence, an archer should always practise shooting in front of his teacher.

### **1814**

- 100.** An archer, who begins to practise the shooting of arrow with his left hand, will become successful in the art of shooting in no time.

### **1815**

- 101.** When success comes with the left hand, the trial with the right hand should start. In the course of time, the archer should practise shooting arrows as well as rounds with both the hands.

### **1816**

- 102.** When proficiency (in shooting) is achieved with the right hand, then again exercise should be started with the left hand. An archer should practise in the standing position (keeping the feet parallel and one

cubit apart from each other) named Visakha and aiming at the root of the target i.e. 'kaisika vyaya'.

### **1817**

- 103.** At sunrise, the target should be shot in the western direction. In the afternoon the target should be shot in the eastern direction so as to achieve a better aim at the target.

### **1818**

- 104.** Arrows should be shot towards the north, but they should not be shot for the purpose of destroying life. Arrows should not be discharged southwards except in times of war.

### **1819**

- 105.** A target set at a distance of sixty bow-lengths is regarded as the best one. If the same is set at a distance of forty bow-lengths, it is regarded as a medium one, whereas a target at a distance of twenty bow-lengths is regarded as the lowest type.

A discussion on aiming and shooting of projectiles:

### **1820**

- 106.** This is a description of rounds or projectiles named 'naraca'. The 'naracas' are shot in numbers of forty, thirty or sixteen at a time, to pierce the target.

### **1821**

- 107.** One who shoots four hundred shots named 'kanda' between the period of sunrise and the sunse, is considered as the best among archers.

### **1822**

- 108.** If the number of rounds (the 'naracas') shot during this time-period is three hundred, the shooter is known as 'mediocre'; but if there are just two hundred, then the shooter of the rounds is known to be 'kanisthaka; i.e. of the lowest category or standard. Archers' targets should be of a man length (three-and-a-half cubits or 6 feet) and fitted with signs of a crescent moon.

### **1823**

109. One who shoots the top portion of such a target is known to be a superior shot, while one who pierces the belly of the target is known as a mediocre one, whereas one who hits the feet of the target is known as an inferior shot.

### Intermissions (anadhyaya) in learning shooting

### **1824**

110. As all activities are prohibited on the eighth and the fourteenth day of the lunar half month and also on the day of the new-moon and on the day of the full moon, shooting practice is also prohibited on those days.

### **1825**

111. Practice shooting should be stopped if there is an untimely roaring of clouds, or there is stormy weather or if the target is broken or destroyed by arrows or rounds shot earlier.

### **1826**

112. The practise of shooting should be abandoned if an arrow is broken at the very start of practicing, or if a serpent is seen at the place where practice is taking place.

### **1827**

113. If the bow string snaps at the very start of shooting an arrow from the bow, then the practice should be abandoned, while taking note of the (inauspicious) obstacle.

### **1828**

114. I am going to narrate a tough exercise in shooting practice which the pure-hearted archer should perform; and only by knowing this can archers become successful, and not otherwise.

### **1829**

115. When taking up the bow, an archer should tie his top-knot and, taking up a firm stance, he should place his hand on the arrow.

### **1830**

116. The bow should be picked up in the left hand (assessing its weight and balance) and the arrow should be nocked onto it thereafter by picking up the arrow with the right hand.

### **1831**

117. The archer should draw the bow and with one attempt pierce the earth and then bow down to Lord Siva and Ganesa, the guardian deity of obstacles.

### **Yoga-Breath control in shooting**

### **1832**

118. At the time of drawing the bow, the consent of the preceptor should be prayed for. At the time of drawing the bow, life-giving breath also should be inhaled (to fill up the lungs) carefully.

### **1833**

119. Breath should be conserved by closing the eyes and nose (kumbhaka), and the breath should be released with the sound 'hum'. An archer who desires success in his art should practise such breathing exercises (Pranayama).

### **1834**

120. The technique of the grip can be successfully achieved through exercise within six months, and the technique of successful aiming takes one year. The learning of the shooting projectiles, 'naraca', is achieved by an archer only through the grace of Lord Maheshwara.

### **1835**

- 121.** In order to become successful in archery, one must hold (and handle) his arrows very gently and carefully, like a flower, and press the bow like killing a serpent. The archer's attention to piercing the target should be as (undivided and undistracted) as in earning money.

### **1836**

- 122.** A preceptor expects that his disciple's shooting will be effective and efficient. The descendants of the Bhrgu clan (like Parasurama) desire that the arrow of the disciple should hit the target at a great distance. A king desires a spectacular display of hitting targets (by his guards and soldiers), while the common people just want targets to be pierced well.

### **1837**

- 123.** If the shooting of an arrow is conducted for entertainment (as a game of archery) or welfare of the people, then even if the target is pierced just marginally, it will be a praiseworthy action.

### **1838**

- 124.** The archer should take the position known as 'visakha' (standing with the feet apart) while nocking his arrow named 'gopuccha' onto the bowstring with a grip like the ear of a Lion (simhakarna).

### **1839**

- 125.** While performing 'kaisika vyaya' the top-knot of an archer should not move, and he should shoot the arrow. keeping both his right and left shoulders motionless.

### **1840**

- 126.** At the time of shooting an arrow, the eyes of the archer should not move: his aim should be attentively fixed on the target. The view of the

target should be covered by the fist and his eyes should gaze ahead of the arrow.

#### 1841

127. Realising that the mind follows the line of the gaze, the arrow ('kanda') should be shot to the target upon which the gaze is fixed. An archer who undertakes regular and hard practice never misses his target.

#### 1842

128. An archer who can bring his arrow from the quiver, nock it to the bowstring, draw back the string, aim, and shoot it (the arrow) very quickly becomes a "quick shooter" on account of his constant practice.

#### 1843

129. When an archer has to shot his arrow at a distant target (durapatanam), he should assume the position of 'pratyaldha' and aim a feminine type of arrow downwards, drawing it with the grip known as 'patakamusti'.

#### 1844

130. If arrows have to be shot upwards (urdhapatanam), the archer should take the pose of a frog and from the stance of 'askandhavyaha', he should fix a male arrow, holding it in a tight grip i.e. 'vajramusti'. If one practises this regularly, he increases the strength of his arms and will become successful in piercing tough targets.

#### 1845

131. Wise men enumerate three types of proper motions of the arrows, viz. (i) 'suchimukha' (meaning flying straight like the tip of the needle) (ii) 'minapuccha' (fish-tailing) and (iii) 'bhramari' (moving all over the place like a bumblebee).

#### 1846

132. The trajectory of an arrow is called 'sucimukha' when it is unfletched or has very little fletching.

### 1847

133. If the bow is hard, then the grip of the archer is not very tight, and the arrow may follow a trajectory known as 'matsyapuccha' (fish-tailing).

### 1848

134. If the arrow when aimed at the target does not travel in a straight line, but approaches it in a to-and-fro' or semi circular manner, such movement is called 'Bhramari' by the learned. [If an arrow, aimed at the target does not travel straight but reaches it in a curve such a trajectory is called Bhramari.]

### Deflection of arrows

### 1849

135. There are four different causes which deflect a moving arrow from its trajectory before reaching the target. These are (i) 'vamaga' (deflection to the left) (ii) 'daksaga' (deflection to the right) (iii) 'urdhaga' (overshooting the target) and (iv) 'adhaga' (falling short).

### 1850

136. If the rear of the arrows vibrates against the inside of the grip (gunamusti) and the bow is held in a level grip (dhanumusti), the front of the arrow will veer to the left. [Hence the grip of the arrow should be firm so that the arrow may not tremble and deflect from the target.]

### 1851

137. If an archer does not hold the arrow properly and aim it straight, his arrow will undoubtedly go either to one side or short of the target.

### 1852

138. If the archer's grip on the bow is above the line to target and the arrow is nocked below the line to the target, the arrow will go upwards. An arrow released from such a position will undoubtedly veer far away from the target.

### 1853

- 139.** While shooting an arrow, the grip on the bow ('capamusthi') should be below-centre and the arrow should be nocked (gunamusthi) above-centre, pointing slightly downwards.

**1854**

140. The right time to release an arrow is when the target, the tip of the arrow and the gaze of the archer are in line. In such a situation the archer never becomes unsuccessful in hitting the target; that is, the archer should cover the target with correct Dhanumusti and Gunamusti (his grip of bow and arrow) in order to pierce it.

The correct trajectory of arrows

**1855**

- 141.** If the target and tip at the arrow are aligned, and the eye aim without any wavering, an arrow shot from such a triple alignment cannot miss the target. [This calls for archer's calmness of mind and strong determination.]

**1856**

142. An arrow which is sharpened well at the tip and is fitted with feathers of a bird and discharged from a firm grip with force, cannot remain in the body of a human being or an elephant or a horse. [It pierces but does not remain in their bodies because it passes right through.]

Attitudes of an archer

**1857**

143. An archer, who thinks his arrows are (light) like grass, his bows (consuming) like burning fuel and the bow-string (attractive) like his life, is considered to be a best archer.

Description of the four tough targets

**1858**

**144.** If an archer can penetrate the following four types of (tough) targets, namely, those made of earthen pot or a lump of earth, his arrows cannot be (countered) destroyed even by a thunderbolt.

**1859**

**145.** Iron plates measuring the thickness of one-and-a-half fingers should be prepared (as targets for exercise). An archer who pierces such plates with a single arrow is known by the designation of Drdhghati – a tough marksman (marksman of tough targets).

**1860**

**146.** An archer who can penetrate twenty-four layers of leather with a single arrow can pierce even the skin of a powerful elephant.

**1861**

**147.** An archer, who can hit an earthen jar in whirling water or a lump of earth through a circulating wheel (placed below it) he is known by the name 'drdhavedhi' meaning 'a tough marksman'.

**1862**

**148.** A target made of iron can be pierced by arrows named 'kakatunda' (beak of the crow) and targets of leather (like shields or armour) can be pierced by arrows named 'aramukha' (a lump of earth). An earthen jar or a lump of earth may be hit through a moving (disc) wheel by an arrow named 'suchimukha'.

**1863**

**149.** One who knows how to counter and cut an arrow, and one who knows how to pierce a piece of wood, or one who knows how to score points in a shooting range (Vinduka i.e. Chandmari) and one who can pierce two round balls (golakayuga) at a time, always becomes victorious.

**1864**

**150.** When a target (animal) charges towards an archer, he should aim to split the arrow which has already pierced the front of the animal (target). He should hold some arrows curved in his grip. He should sever the head of the animal (or enemy) with an arrow with a semi-circular tip or an arrow having two tips.

**1865**

151. If an arrow coming straight forward obliquely cuts another arrow in the sky, then the archer displaying such a skill is known as 'Vanacchedi' meaning 'one who cuts an arrow in the air'.

After describing the cutting of arrows, the cutting of wood is discussed:

**1866**

**152.** If an archer fixes horse-hair to a piece of wood and also he binds a cowry shell there (as a target) while spinning the wood, if he hits this target, he is known as Dhanurdhara, meaning 'a real archer'.

**1867**

**153.** An archer is known by the name 'Kasthacetta' meaning 'a piece of wood' if he can pierce a piece of wet wood placed in the position of a tail of a cow by an arrow known by the name 'ksurapra' meaning an arrow with a sharp horse-shoe shaped head.

**1868**

154. If a white point is placed on the target by attaching a white 'vandhuka' flower, an archer who is able to hit that point is called a 'citrayodhi'.

Aiming at moving targets:

**1869**

155. If two wooden balls are thrown from in front upwards to a great distance, they cannot be penetrated by an arrow which follows from behind; but if the arrow sticks into the ball behind like a tail, or it hits but does not get attached there, the archer is called a marksman (of moving targets).

\* The following verse relates to the earlier verse 1869

**1870\***

- 156.** An archer who can attach two arrows at a time and pierces his target (the two wooden balls) is considered as the best of all archers and is worshipped, (i.e. honoured) by the kings.

**1871**

157. Irrespective of whether an archer rides on an elephant, or a horse or moves on foot, if he practises while moving, is sure to succeed in piercing his target.

Shooting the target from its/sound/resonance

**1872**

- 158.** Pots made of bell-metal should be kept at a distance of two cubits from the target. Another person should produce sounds by hitting pot with pebbles (sarkara).

**1873**

159. An archer should assess the distance of the source from which the sound is coming by concentrating attentively and by using his ears, and should locate the target and penetrate it.

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Repeated exercise for marksmanship

**1874**

- 160.** An archer should again cause the sound to be produced from pots by hitting them again with pebbles and should again locate and aim to pierce the target near the origin of that sound.

**1875**

- 161.** The archer may increase his distance from the target gradually from 10 cubits to 20 cubits and then to 100 cubits and should practise in darkness piercing the target from the sound emitted by it.

## 1876

162. An extremely intelligent archer with earnest attention can pierce a target with his arrow. Such a difficult task is performed by an archer on account of his good luck.

### Exercise with weapons

## 1877

163. As long as an archer fails to achieve success, he should practice hard. When an archer's labour makes him a marksman, he needs not take his bow in hand during rainy days.

## 1878

164. An archer should always practise with his weapons for two months in the autumn so that he may not forget the art of weapons he acquired earlier. [The months of August and September comprise the season of Autumn in India.]

## 1879

165. In the month of Asvin (when the horses are yoked to the carriage) and during the divine ninth lunar day of the fortnight, Lord Siva, Goddess Candi, the Preceptor, weapons and horses should be worshipped.

## 1880

166. Daksina (offerings of money) should be given to the Brahmanes and the maidens should be given good feasts. Animals should be sacrificed along with the sound of auspicious instrument (like conch, gong and cymbals) and chant of music in honour of Goddess Durga (and thus the archer himself should pray for victory to the Goddess of War).

## 1881

167. Then the archer (after performing rituals as above) should practise recitals of Vedic hymns according to the rules of the Vedas as well as Agama (vedoktan agamoditan). For success in the art of shooting his

weapons and arrows, an archer should intone 'japas' and perform sacrifices (homas) according to the scriptural laws (vidhanatah).

Devastating weapons from elements (like water and air)

**1882**

- 168.** An archer should strive for weapons named 'Narayana', 'Saiva', 'Aindra', 'vayavya', varuna and the 'agneya' (producing great fire) which the preceptors give out at their discretion.

**1883**

- 169.** An archer who is pure in heart masters his weapons by applying his mind (to understand the principles of grip, aim and release), word (enquiry from his preceptor) and active hands (for practice). He can kill with his weapons a man who is unworthy and unable (to live) and who is evil.

**1884**

- 170.** A man who knows how and when to apply (use or withhold) his weapons is known as an archer or a musketeer. A wise archer or musketeer does not use his arms in an everyday situation.

**1885**

- 171.** An archer, who takes the stem langali (jalapippali) plant when the moon is in the Hasta constellation and use its sap on his weapons easily removes the pride of any great hero in the battle.

**1886**

- 172.** By taking the root of an 'apamarga' (apang) plant at sunrise when there is 'yoganaksatra' (in the sky) and by anointing its juice on hand and weapons, a hero gains the power to ward off his enemies' arrows.

**1887 & 1888**

- 173.** By tattooing on the hand (as a talisman) or by applying the sap of the following plants onto his arms, a hero can ward off pain from enemy weapons: adhapuspi, samkhapuspi, lajjalu, 'girikarnika', 'nalini', 'sahadeva', 'putramarjarika', 'visnukranta' and 'aparajita' and other

plants with matted fibre. This matted fibre should be taken on a Sunday in a clean and pure state as instructed by the preceptor. (Medicinal plants, mystic chants and precious crystals and stones are for the use of man; but the reason of their potency and their origin is beyond the empirical scientific through which we try to grasp things.)

### **1889**

- 174.** A hero does not have anything to fear snakes, tigers and similar apparently dangerous creatures, because his body is blessed by the eight Goddesses (The Goddesses are the presiding deities of various elements of nature, viz. Brahmi, Mahesvari, Indrani, Varahi, Vaisnavi, Kaumari, Camunda and Candika.).

### **1890**

- 175.** By the influence of the powder obtained from 'chuchundari' plant during the rise of 'Hastanaksatra' on a Sunday, even an elephant does not dare to come in front of the warrior.

### **1891**

- 176.** If the 'chuchundari' plant and powder extracted from the blossom of the 'vilva' tree are anointed on the body of a warrior, then even a mad elephant sheds its wanton strength and a lion gives up its fierceness, just seeing him from a distance.

### **1892**

- 177.** The root of the white karnika tree (svetadrikarika) can remove dust on his hands and similarly the root of the white kantarika (svetakantarika) removes a hero's fear of tigers etc.

### **1893**

- 178.** The root of the Patali and Pusparka plants should be dug up, and if kept in the mouth of the warrior along with betel-nut powder, his body cannot be pierced by sharp arrows in the battlefield.

### **1894**

**179.** If the end of the root of the 'gandha' (campaka) tree is collected on a Sunday according to scriptural rules, when the moon is in the Pusya constellation, and put inside his mouth, the warrior gets immunity from weapons of the enemy which cannot enter his body or sever it.

**1895**

**180.** By fasting on a Sunday when the moon is in the Pusya constellation, if the warrior collects the matted part of 'subhra' 'sarapumkha' or 'jatanili' and places these on his breast, head or inside the mouth, these remove or ward off in-coming arrows or weapons of the enemy. Kings, when they become very much afraid of thieves etc. in order to ward off their fear, obtain the help of such plants collected on such a Sunday ('pusyabhaskara').

'Do's and Don'ts during the operation of war

**1896**

**181.** An archer should first take a bath and then dress in white. He should worship the 'Deities' and the 'Brahmanas' while chanting auspicious mantras and music.

**1897**

**182.** An archer must give offerings in the name of King and to the presiding deities of the ten quarters. He is to worship all his weapons and intone mantras for his protection as follows –

**1898**

**183.** "Om; O, Goddess, kindly protect us with Your spear; O Mother Ambika, kindly protect us by Your sword, protect us by the ringing of Your bell and by the sound of the bow-string from other dangers and difficulties.

**1899**

**184.** "O Candika – O Goddess, kindly protect us on the east, west, south and north as well by brandishing Your sword.

**1900**

**185.** "Kindly protect us by Your calm and pleasant looks, which pervade throughout the three worlds, and also by Your most fearful form. Kindly protect us and the world at large.

**1901**

**186.** "O, Ambika with the help of Your weapons – sword, spear and mace – which are in your hand: kindly protect us all in every way."

**1902**

**187.** The warrior should anoint his body with divine ointments and medicines and protect his body by wearing different talismans. After taking a little 'bhattvaka' drink, the archer should start practising for battle.

**1903**

**188.** A warrior should please his Generals and the superior fighters on elephants and other chiefs of his army with gifts of precious items and clothes.

**1904**

**189.** After placing an effective charioteer on the chariot, the warrior himself should get into it (the chariot) and he should yoke only those horses to the chariot which are healthy, well-nourished and capable of doing hard maneuvers.

**1905**

**190.** A warrior should keep four bows in the chariot as a precaution against all misfortunes, and he should keep four hundred arrows in his quiver.

**1906**

**191.** He should also place in the chariot a sword (khadga), shield (carma), mace (gada), spear (sakti), parigha (a type of weapon), hammer (mudgara), projectiles (naraca), axes (parasu), lance (kunta), pattisa (a type of weapon) and ardi (a type of weapon) etc..

**1907**

**192.** One who does not have a chariot or elephant, will ride on horseback, fixing a quiver on his vest belt and taking a sword, sakti (spear) and bow in hand.

**1908**

**193.** After keeping Lord Visnu in mind, the name of Arjuna should be intoned by the warrior. Thereafter, he should establish his position along with his four types of troops (namely the elephant-riders, the cavalry, the charioteers and the infantry).

**1909**

**194.** The warriors in whose heart Lord Janardana, whose colour is blue like the blue lotus, resides, become successful and victorious everywhere and they never fear defeat.

**1910**

**195.** These are the names of Arjuna, which the warrior should intone: Arjuna, Phalguni, Partha, Kiriti, Vivatsu, Vijayi, Krsna, Savyasaci and Dhananjaya.

How to calculate the number of different arms in a formation called Akshouhini

**1911**

**196.** The charioteers wearing shields should number 21,870 (by computing the legends) sky (0), Tunes (svara)(7), Vasu (8), Indu (moon) (1), and netra (eyes) (2). [The digits in Sanskrit are counted from right to left hence 21,870]. According to scholars who are well-versed in Mathematics, the number of chariots and charioteers putting an armour in an 'aksauhini' amount to Twenty-one thousand eight hundred; the kings are seventy in number added to this make the figure (21800 + 70 = 21870).

**1912**

**197.** The number of warriors on elephant has also been determined to be the same – that is (21870) twenty-one thousand eight hundred seventy in an 'aksauhini'. This has been specially directed.

### **1913**

- 198.** The number of infantry soldiers is one Lakh (ten thousand) nine thousand three hundred and fifty (19,350) in an 'aksauhini' (all of them are equipped with weapons).

### **1914**

- 199.** The number of cavalry soldiers remains fifty-six thousand six hundred and ten (56,610) as stated by scholars who are very effective in counting.

### **1915**

- 200.** The mathematicians decided the number of soldiers in a troop called 'mahaksauhini' as two sky (2), flourish (sagaras) (4), four vedas (4), one moon, (1) two eyes (2) one fire, one moon, 1, i.e. 244,121 (Twenty-four lacs, forty one thousand two hundred and one).

### **1916**

- 201.** In 'mahaksauhinika' the number of soldiers are thirteen crores twenty-one lacs, twenty-four thousands and nine hundred. 132,124,900.

### **1917**

- 202.** The numbers of chariots in a 'mahaksauhinika' is one crore which is stated by scholars. But some scholars who differ in opinion state that the number will be thirty-seven lacs. (3,700,000).

### **1918**

- 203.** In such a troop the number of elephants should be twelve thousand four hundred ninety. (12,490).

### **1919**

- 204.** In such a troop the number of horses (cavalry) should be four crores, eleven lacs, seventy three thousand and four hundred (41,173,400).

### **1920**

**205.** The number infantry soldiers (patya) in mahaakshauhini will be (68,000,075) six crores, eighty lacs and seventy-five.

**1921**

**206.** Sixty-two thousand four hundred and fifty is the number of the formation known by the scholars as 'mahaksauhika'.

**1922**

**207.** The technique of making a formation (vyuha) in a battle is as follows – the charioteers should be placed in front, behind them the elephants, the infantry at its back and the cavalry should be placed to each side.

**1923**

**208.** The formation of the soldiers may be planned in the shape of a half moon, or as a circle or a carriage, a fish, a lotus, or simply by making rows or in the shape of a bush.

**1924**

**209.** The King should keep around him for his protection those princes who have received the status of feudal lords or subordinate Kings and also all other attendants who are loyal and have aptitude to serve the King.

**1925**

**210.** The main or most important person of a family must be protected at all costs. When the chief of a family perishes, as a result of the loss of the root of the dynasty, all the soldiers lose their strength and determination to fight.

**1926**

**211.** The quality of men behind the weapons determines the battle more than their number. Even a small number of persons imbued with the traits of heroism, trained in arms and loyal to the king, will serve (the King and the country) better than a large assembly of people (without

loyalty, courage and determination to win the war) who will be ineffective (mundamandali).

### **1927**

- 212.** Even five hundred heroes can defeat a large army. Sometimes even if five, six or seven such heroes fight bravely, they may defeat the enemy.

### **1928**

- 213.** War veterans who have with them their holy bows, which had been their means for livelihood, can bring victory even if the forward line of the king with their horses is not very strong.

### **1929**

- 214.** Archers who are close comrades and know battle-craft may beat enemies fighting them on horseback.

### **1930**

- 215.** But a single cowardly archer who breaks ranks can destroy the power of a large number. Even the most heroic and greatest fighters will suffer a breakdown of morale (they will desert with such a coward in their midst and face defeat).

### **1931**

- 216.** A strong and insuperable battalion may run away and court defeat, just like animals who are afraid of surging floodwater (if a coward breaks ranks.)

### **1932**

- 217.** A hero who can regroup fleeing soldiers, return to combat and rout the enemy will receive the eternal fruit of the sacrifice of Asvamedha at every step.

### **1933**

- 218.** In this world there are two types of human beings who can ascend to Heaven (penetrating the orb of the Sun): one is the ascetic who has

extirpated his sense and knowledge through performing Yoga and profound meditation. The other is a hero who dies in hand-to-hand combat.

#### **1934**

219. If a hero dies surrounded by his enemies, without uttering a word in fear, it is sure that he will reach that eternal sphere (Heaven).

#### **1935**

220. (Enemy) heroes who faint, or are wounded, or whose weapons are broken, or who are fighting with another warrior, or who are asking for asylum or refuge, should not be killed.

#### **1936**

221. A mighty warrior should not chase a weak fighter who is running away, because a warrior who apprehends death may suddenly become aggressive and brave.

#### **1937**

222. An emperor should organize his army comprising four arms ('caturanga', i.e. the charioteers, soldiers mounted on elephant, cavalry and infantry) into a formation (vyuha) to encircle the enemy and deploy valiant heroes in front of it if he wants to become victorious in war.

#### **1938**

223. The happiness and morale of the troops are the factors which contribute to the victory, irrespective of the size of the army, small or large.

#### **1939**

224. A hero who proceeds with the wind, by leaving the Sun behind as well as the birds and the floating clouds, surely becomes victorious.

#### **1940**

**225.** One should not die prematurely; nor should one live after one's time is up. Hence one should exercise patience and kill the enemies (of the king and the country).

**1941**

**226.** In war, if one achieves victory, one gains wealth, If one dies, one gets a place in Heaven and earns fame in this world. Hence one should exercise patience and kill one's enemies..

This is the teaching of Lord Vvyasa who has revealed the Sivadhanurveda.

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