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Kontaktadresse:

Egbert Meissenburg Elbdeich 164 D-21217 Seevetal

## Exploring the Possibilities of Finding out the Nature of Chess in its Original Form

## **C. Rajendran** Professor of Sanskrit University of Calicut Kerala 673 635 India

Chess is a truly international game of intellect, which has made deep inroads in to the psyche of people all over the globe in the last millennium. It has now been generally recognized that India is the homeland of this wonderful game, which has invaded all continents down the centuries. In its migration from India to different parts of the world, it is but natural that the game should develop a number of regional features, some of which later came to change its very form in a substantial manner. These changes are chiefly related the nature and movement of game pieces. Even in India, the game was not played uniformly throughout the land at different points of time. This fact is attested by the great variety of pieces available in different parts of India, whose movement also considerably varied from place to place. The development of chess from an original archetype into various regional forms can be compared with the development of several recensions from a single text like the *Mahabharata* or the Bible. It is possible to restore the original form of a text from the various recensions available at different points of time if we are to apply canons of textual criticism to the data. Now the interesting

question is whether we can hope to know about the exact nature in which chess or Caturanga as it was known in India was played.

At the very outset of our enquiry, we have to pose the question whether chess was indeed a war game or something else, in order to convince ourselves of the basic nature of the game The overwhelming evidence point to the inevitable fact that chess was originally intended to be a miniature replica of the fourfold army of ancient India represented more or less realistically on a game board consisting of sixty four squares. This is very clear from the description of Caturanga contained in *Hariharacaturanga*, wherein the author alludes that Caturanga is modeled after warfare.<sup>1</sup>

This should probably dispel the notion, once widely held, among others, by scholars like Needham that the origins of Chess can be found in the divinations of ancient China, as we would lose all this orientation of the war when the Indian perspective is lost. Again, the local variations of the game, like the replacement of the Caturanga army with boat, camel etc. can also be determined to be later innovations.

We can, therefore, understand the dynamics of the game from the ancient Indian concept of warfare wherein two armies encountered each other in a face-to face combat. Such a picture is, for example, furnished in the following description of a war between two armies in the epic, *Raghuvamsa*, penned by Kalidasa

It was a battle between two forces of equal strength: the footman encountering the footman, the charioteer against the charioteer, the horse rider facing the horse rider, the man on elephant facing the man on elephant.<sup>2</sup>

This face to face standoff is reflected in traditional Caturanga more or less in the same manner, at least in the beginnings of the game. This is also hinted at in the celebrated *Harsacarita* passage, wherein Bana maintains that the four-fold army was available [at the time of Harsha] only on the game board.<sup>3</sup> This should also probably rule out any possibility of the so called four-handed chess being the precursor of Caturanga, which, as a replica of a war was essentially to be fought between two armies. There is every possibility that a two handed version, with two kings and their army, being the natural representation of war, was later improvised on board with four kings and their army.

In the representation of the forces on the board, the relative strength of each one seems to have been taken into consideration. Macdonnell<sup>4</sup> and following him, Murray refers to

<sup>&</sup>lt;sup>1</sup> Hariharacaturanga,VIII 1-3

<sup>&</sup>lt;sup>2</sup> Raghuvamsa, CantoVII, 33.

<sup>&</sup>lt;sup>3</sup> Astapadanam caturangakalpana Bana, Harsacarita, Kashmir Edn. p.182

<sup>&</sup>lt;sup>4</sup> Arthur Anthony Macdonell: *Origin and early history of chess*, in: Journal of the Royal Asiatic Society, New Series, vol. 30, London 1898, S. 117-141 [118].

the discussion of the fourfold army given in treatises like Nitisara of Kamandaka as a possible guideline to this. Murray refers to the necessity of discovering 'some means of reproducing the difference in value' of various pieces<sup>5</sup>. Kamandaka gives his assessment of the difference of the values of forces thus:

3 footmen=1 Horseman 5 Horsemen=1 Elephant/Chariot.

It would be clear that the footman was naturally regarded as the weakest force; the horse followed and the chariot and the elephant were superior to them.

What was the type of arrangement of pieces? Let us have a close look at the arrangement in traditional Caturanga of Kerala.

CH	н	E	К	м	Е	Н	CH
F	F	F	F	F	F	F	F
F	F	F	F	F	F	F	F
CH	Н	E	Κ	М	Е	Н	CH

CH: Chariot, H: Horse, E: Elephant, K: King, M: Minister, F: Footman

It is interesting to note that this reflects the face to face combat envisaged by Kalidasas in some respects. It seems very probable that in the original version of Caturanga, the board was not chequered with black and white and hence there was bound to be some confusion about the exact position of the King and the minister. Andreas Bock-Raming points out that *Manasollasa*, the earliest available Sanskrit text on the rules of the Caturanga game is silent about the relative position of the King and the minister, viz. whether the king is placed on the left side or the right side of the minister<sup>6</sup>. In Kerala, the King is always placed on the left side of the minister "[*vatakila arasu vala*]. It seems highly probable that Kerala game is following an ancient tradition of the game in its original form.

<sup>&</sup>lt;sup>5</sup> H.J.R. Murray: *A History of Chess*, Oxford 1913, p.46.

<sup>&</sup>lt;sup>6</sup> Andreas Bock-Raming: *The Varieties of Indian Chess through the Ages.* - In: Asiatische Studien. Études Asiatiques, Bern/Berlin, 49, 1995, N° 2, pp. 309-331 [310].

With regard to the movement of pieces, we are fortunate enough to have some precise descriptions in Rudrata's *Kavyalankara*, a Sanskrit treatise belonging to the first half of ninth Century. Rudrata gives us the movements of the horse, elephant and chariot. There is no reason why this should not reflect the Caturanga movements in their original form. The Chariot's tour, as envisaged by Rudrata is as follows.<sup>7</sup>

1	2	3	4	5	6	7	8
16	15	14	13	12	11	10	9
17	18	19	20	21	22	23	24
32	31	30	29	28	27	26	25

This is somewhat different from the movement of chariot mentioned in Manasollasa:

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It seems that the tour mentioned in Rudrata seems to be the original form since it has greater resemblance with the modern movement of rook.

The movement of the horse does not furnish any sort of problem since it has been universally the same from the very beginning. Rudrata gives the following diagram:

1	30	9	20	3	24	11	26
16	19	2	29	10	27	4	23
31	8	17	14	21	6	25	12
18	15	32	7	28	13	22	5

<sup>&</sup>lt;sup>7</sup> See Murray, op. cit., p. 54.

Eventhough Rudrata gives only the movement of half of the board, it could be further extended to the other half as well.

With regard to the movement of the elephant, we have a number of problems. Murray, following Jacobi<sup>8</sup> gives the following interpretation of the pattern suggested by Rudrata:

1	3	5	7	9	11	13	15
2	4	6	8	10	12	14	16
17	19	21	23	25	27	29	31
18	20	22	24	26	28	30	32

But this involves an unusual move. In the words of Murray,

If we examine the commentator's solution, [...] we see that it consists of two halves, each occupying two lines of the board, that the two halves are precisely the same, that they are connected by a move from h7 to a6, right across the board.<sup>9</sup>

In my paper published in Adyar Library Bulletin<sup>10</sup>, and reproduced in «Indian Views», I had, without having the benefit of the knowledge of the findings of Jacobi and Murray arrived at the following chart.<sup>11</sup>

1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24
25	26	27	28	29	30	31	32

This was on the basis of the sequence given by the commentator of Rudrata, viz.1, 9, 2, 10, 3, 11, 4, 12. I can only say that the problem requires thorough reexamination.

Andreas Bock-Raming gives the following pattern from Manasollasa.<sup>12</sup>

<sup>&</sup>lt;sup>8</sup> Hermann Jacobi: Ueber zwei ältere Erwähnungen des Schachspiels in der Sanskrit-Litteratur. - In: Zeitschrift der Deutschen Morgenländischen Gesellschaft, 50. Band, 2. Heft, Leipzig 1896, pp. 227-233. Reprinted in: Hermann Jacobi, Kleinere Schriften, Teil I, Wiesbaden 1970, pp. 540-546. <sup>9</sup> Ibid.p.55.

<sup>&</sup>lt;sup>10</sup> C. Ranjendran: *Caturanga movements described in Rudrata's Kavyalankara*. - In: The Adyar Library Bulletin, Madras, vol. 62, 1998, pp. 99-107.

<sup>&</sup>lt;sup>11</sup> C. Rajendran, *Caturanga Movements Described in Rudrata's "Kavyalankara".* - In: Working Papers "Indian Views". A Collection of Papers on Chess and other Board Games. Eds. Manfred A. J. Eder & Irving L. Finkel, Kelkheim/Ts. November 2001, pp. 26-28 [27].

<sup>&</sup>lt;sup>12</sup> Op.cit., p.330.

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This is comparable to the movement of the modern rook. In Caturanga of Kerala, the movement is as follows.

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The elephant seems to be the most confusing piece.

We do not have any reference in Rudrata about the movement of the pawns, the king and the minister. These could be studied with the help of the information gathered from Persian sources and later works from India, even though one cannot help feeling that the solution will remain conjectural. The following table represents their movement in different sources:

Piece	Manasollasa	Kerala tradition
Pawn	As in modern chess	Immediate front square.
Minister	One step in four diagonals	Diagonal
King	As in modern chess.	As in modern chess

This paper is only a beginning of a much needed research on the possible nature of the original form of Chess. There are several unanswered questions like the nature of strategies and arrays and these should remain conjectural at present.