

THE VARIETIES OF INDIAN CHESS THROUGH THE AGES*

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Everyone who deals with Indian chess rightly complains of the scarcity of references to that game in Indian literary sources up 1000 A.D. It is true that we have nearly 20 passages from various texts of the first millennium which might be interpreted as an allusion to chess. They have been listed by Manomohan GHOSH in the introduction of his edition and translation of Śūlapāṇi's *Caturāṅga-Dīpikā*¹, a rather late work on four-handed chess to which I will return later. Many of these passages, however, are very short and often contain nothing more than the expression *aśīṭpada* (the gameboard) which could equally refer to a game comparable to our backgammon. So the important questions as to when and where in India the game of chess came into being and whether in the beginning it took the form of four-handed chess which later developed into two-handed chess or vice versa are still far from being solved. After the first millennium, the textual evidence for chess in India is better, although compared to the Arabic chess literature it is still poor. Up to now, there are altogether five printed texts on chess whose editions are accessible to scholarly research. Furthermore, a number of texts in manuscript form is preserved mostly in Indian libraries. They have been listed by S. Y. WAKANKAR in his article "A Survey of Sanskrit Works on the Game of Chess"² and are still awaiting publication.

In this article I want to give a short survey of those five above-mentioned texts on chess which have already been edited³. The oldest of them is a

passage of about 60 verses in a Sanskrit text called *Mānasollāsa* (*MS*)⁴ which is attributed to an Indian king named Somesvara Bhūlokaśāla who reigned over large parts of Central and South India during the first half of the 12th century A.D. Its value as the first detailed description of Indian chess rules cannot be overestimated. The entire *MS* itself is a huge encyclopaedia dealing with matters concerning the king and his family. It consists of five books of twenty chapters each and contains, for example, rules for the proper conduct and the education of the prince; marriage customs; details on architecture, iconography, and painting; furthermore, a detailed description of various enjoyments and comforts of life like bathing, garments, ornaments, food, beverages and women; also, an enumeration of amusements and diversions like dancing, poetry and music. Finally, the *MS* also contains a long chapter on various games like guessing games, outdoor games and, among them, also a description of the games of chess⁵ and dice⁶. Although chess historians have known of the existence of this important text since the end of the last century, it has been neglected until very recently. Last year I hit upon the *MS* and realized its importance for the history of chess. I have prepared an annotated German translation of the whole passage on chess which has been accepted for publication by the *Indo-Iranian Journal* and will presumably appear by the end of 1995. These are the essentials of this text:

The first section of the chapter on chess in the *MS* is concerned with the initial positions of the chess-pieces. We learn that the two corners of the first row of the chess-board are occupied by the chariots. The respective squares next to them are assigned to the horses which are followed by the elephants. In the middle of the first row, there are the king and the minister. Unfortunately however, the text does not give any clue as to whether the king is placed on the left side of the minister or on its right. Finally, the second row is occupied by the eight pawns which in the *MS* are called foot-soldiers (*padāri*).

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1 Śūlapāṇi's *Caturāṅga-Dīpikā. A Manual of Four-handed Dice-Chess*. Critically Edited for the First Time with Translations, Notes and Introduction by Manomohan GHOSH, Calcutta 1936 (The Calcutta Sanskrit Series 21), pp. VII-XVII.

2 In: *Journal of the Oriental Institute*, University of Baroda 35 (1986), No. 3-4, pp. 293-303.

3 In addition, there are a few more texts on chess which have been printed but up to now have not been available for my investigations: e.g. the *Caturāṅgavilasamanī-mañjarī* of Tivēṅgaḍācārya (cf. WAKANKAR's article, p. 294) and the *Śataraṅjākruti-haṭam* (cf. WAKANKAR, p. 300).

4 Edited in three volumes by Shrigondekar: vol. I: Baroda 1925 (repr. 1967), Gaekwad's Oriental Series 28; vol. II: Baroda 1939, G.O.S. 84; vol. III: Baroda 1961, G.O.S. 138.

5 Contained in vol. III, 5, 560-623.

6 Contained in the passage 5, 634-795. A translation and study of this text is in preparation.

Concerning the moves of the individual chess pieces, the *Ms* provides the following rules which are illustrated in the appendix, diagrams 1 to 6: the chariot moves aslant to the next but one square. The move of the horse is identical with that of our knight. The elephant, like our castle, moves at pleasure in the four cardinal directions. In addition to that, it is allowed to leap to any square of its choice. The minister may take one step in the four diagonal directions which complies with the Arabic chess rules. Finally, the moves of the king as well as those of the pawns are the same as in modern chess. All the major pieces capture as they move. Only the pawn takes a piece that is positioned in either angle in front of it.

With regard to the foot-soldier, the *Ms* provides another valuable piece of information. The text reads:

When [the foot-soldier] has moved across 4 rows of squares it will become a minister. It [will be] a minister on the 4 squares if it returns [from there, i.e. the 8th row]⁷.

This statement concerning the promotion of the pawn seems somewhat puzzling: what exactly are the 4 rows which it has to cross before it is promoted to the rank of minister? Perhaps one may assume that already at the time of the *Ms* the pawn in its first move was allowed to move two squares at a time from row 2 to 4. The rows 4 to 7 would then be the 4 rows mentioned in the text. When the foot-soldier has reached the 8th row, it becomes a minister, but evidently only under the condition that it returns to its initial position. If I am right in my interpretation of the *Ms*-text, this would be a rule which is similarly found in the chess of Borneo and Java and which also reminds us of the three "joy-leaps" ("Freudensprünge") of the pawn practised in the chess of the German village Ströbeck⁸.

Another important passage of the *Ms* deals with three different opening positions which may be adopted optionally instead of the regular or normal initial position described above and which I consider comparable to the *tabīyas* in the early Arabic chess literature. Let me discuss just one of these. It is called *gomātra* which literally means "the cow's urine". This word is derived from the Sanskrit literature about warfare and means that the parts

of the army are arranged in a zigzag line⁹. In the chess text of the *Ms*, this zigzag line refers to the foot-soldiers. Of course, this information does not tell us how exactly the chess-pieces were arranged. But one could imagine an opening which exists in the early Arabic chess literature. In a book on chess written between 1000 and 1200 A.D. by the famous chess master al-Lāḡīḡ we find a *tabīya* named *muḡamla*. As one can see in diagram no. 7 (p.325), the position of the foot-soldiers on the squares a2, b3, c4, d3, e3, f4, g3 and h2 forms a kind of zigzag line¹⁰, and it is possible that the author of the *Ms* had in mind a similar formation which could have looked like that in diagram no. 8 (p.325).

Furthermore, the *Ms* describes three different positions in which the king of the opponent is stalemated. One of these is described thus:

One should [try to] block the king of the opponent. [If] one places [one's] foot-soldier on the 3th, [one's] minister on the 6th and [one's] chariot on the 7th row, [this arrangement of the chess pieces] is taught as vajrabandha by the wise [players]¹¹.

The passage just quoted describes a stalemate in which the position of the chess pieces could have been similar to diagram no. 9 (p.326) where the white king, chariot, minister and foot-soldier are placed on the squares h8, f7, f6 and f5 respectively, thus leading to the stalemate of the black king on h6.

Of great importance are also the rules concerning the end of the game. The text expressly states that it is never allowed to take the opponent's king¹². If the latter is placed on a square where it is in danger of being taken it must move, and if that is not possible it is check-mated and the game is finished. The *Ms* contains three different examples for checkmating the king. One of these runs:

⁹ Cf., e.g. Kāṭilya's *Arthśāstra* 10.6,24-25.

¹⁰ Cf. R. WEBER, *Das Schachspiel in der arabischen Literatur von den Anfängen bis zur zweiten Hälfte des 16. Jahrhunderts*, Bonn 1972, p.363; also MURRAY, *A History of Chess*, Oxford 1913, p.248.

¹¹ ... *nibadhānā(ṭ) ... param nṛpaṃ / pañcamyān ca bhāṭaṃ pañkṭaṃ saṣṭyān pañkṭaṃ tu mantriṇaṃ // sapṭamyān syāndanaṃ kuryād vajrabandhaḥ smṛto budhātḥ* // 5, 586-587ab.

¹² *vadyaśāhānāśhito rājā na hanīsvaḥ kadācana* // 5, 594cd.

⁷ *padāpankṭicatuṣkaṃ tu garvā mantri bhavet ca sah // paśāṇaṃ nivartate yo 'tha mantripadacatuṣṭaye* // *Ms* 5, 567cd-568ab.

⁸ Cf. WEBER, *Monatsbericht* 1873, pp 715ff.

After one [player] has placed [his pieces] capable of taking [his opponent's] king around the square where the latter is standing he should address [the opponent]: 'Again your king is going to be taken by another one [of my pieces]'. As [the king of the opponent] is not allowed to remain [in check] nor is able to move [from there] his side is defeated.¹³

According to this description evidently several pieces are involved in checking the opponent's king. One could imagine a constellation like in diagram no. 10 (p. 326): the black king on h8 cannot escape the check by the white horse on f7 as g8 is guarded by the other white horse on f6 and h7 by the white foot-soldier on g6. On g7 the black king's own foot-soldier prevents its escape.

The enumeration of different possibilities to checkmate the opponent's king concludes the description of two-handed chess in the *Ms*.

So all things considered one can say that the *Ms* gives a very systematic and elaborate account of the rules of two-handed chess as it was known in South India at the beginning of the 12th century A.D. One of the most striking features of the text is that it contains several details which have been known so far only from the Arabic chess literature: first, the existence of a figure called minister which corresponds to the *firzan* in Arabic chess and which, like the latter, is allowed to take one step in the four diagonal directions. Second, the promotion of the foot-soldier; third, specific opening positions which correspond to the so-called *tabiyas* in Arabic chess and fourth, the sacrosanctity of the king. Thus the question arises whether the *Ms* possibly is an adaption of the Arabic chess rules. For two reasons I don't think it is. First, the *Ms* does not show the slightest evidence that words or expressions from the Arabic language have crept in as is the case with later Indian texts on chess. On the contrary: considering the terminology of the *Ms*, it more than once reveals a specific context of its description of chess: that of the Indian army. The arrangement of the chess pieces is repeatedly called *vyūha* which in Indian texts dealing with the conduct of war means "battle array". Even the names of specific arrangements of the chess pieces like the above-mentioned *gomūṭha* are names of battle arrays and have their place in the Sanskrit texts on the conduct of war.

¹³ *nivṛjya ghāṭakān rājāṇaḥ pade tasya (my reading for pade swasya) samantataḥ / punar anyena kenāpi vadyo rājete nirḍīṣet // gāṇḍhīvivīhanavāḥ tat pakṣasya parāvṛṇyaḥ //* 5, 600-601ab.

The second argument that the *Ms* is a genuine Indian text and is not influenced by Arabic chess rules is the sacrosanctity of the king which can be interpreted as a symbol for the structure and organisation of the ancient Indian army. As early as the last centuries of the first millennium B. C., the Indian king had a god-like position. In battle, he was the one who directed the military actions but did not play an active role in fighting. Within the army, he occupied a position where his life was safe. It is this aura of sacrosanctity which is symbolically expressed in the chess rule: "The king must not be taken". Thus, the invincibility of the king in chess is evidently not a Persian invention as assumed by Prof. PERZOLD in his article on the origin and symbolic meaning of chess¹⁴, but is a genuine Indian chess rule which constitutes the very essence of the game.

Already at the time of composition of the *Ms*, however, at least two variants of the game of chess were known. Subsequent to the passage on two-handed chess, there follows (*Ms* 5, 605cd-615ab) a short description of a kind of chess called *sarvatoḥbhādra* which literally translates as "auspicious on every side" and is once more a word belonging to the technical vocabulary of Sanskrit texts dealing with the formation of the ancient Indian army. In this kind of chess the king, who is endowed with the powers of all the other pieces, plays alone against the entire army of its adversary. Furthermore, this variety is played in combination with dice. The relevant passage of the text runs:

[If] a throw of six [is thrown], the king has to be moved; [if] a throw of five, the minister; [if] a throw of four, the elephant; [if] a throw a three, the horse runs forth; [if] a throw of two, the chariot moves and [if] a throw of one, the foot-soldier. [...] This game proceeds with two or [more] 'balls'. Each time each of the two [players] should have one throw alternately.¹⁵

The last part of this quotation seems puzzling, but it becomes clear from the following context. After the chapter on chess the author of the *Ms* describes a game comparable to our backgammon an essential part of which consists

¹⁴ J. PERZOLD, "Entstehung und Symbolbedeutung des Schachspiels", in: *Das Altertum* 37 (1991), Heft 1, p. 42.

¹⁵ *nṛpaḥ saḥkṛṇa saṃcārya manur pañcakaḍyāṇaḥ // catuṣṭṛeṇa gaḥa gacchei trībhir aśvaḥ pradhāvati / dvikena syandano yāti yāti paritḥ padena ca // ... goḷakair goḷakābhyam ca kelir eṣā pravartate // ekaikavāram pātāḥ syāt paripṛayenohayor api //* 5, 612cd-615ab.

of dicing (cf. p.310, note 6). Evidently two kinds of dice were in use: prismatic as well as cubic dice the latter of which were named "balls" in Sanskrit language, probably because of their round shape. The sides of both kinds of dice were furnished with a differing number of pips in order to count the throws. If cubic dice were used, one had two or three of them. It seems clear that these details with reference to dicing are an integral part of the backgammon-play in the *Ms*s and were only secondarily grafted on to the *sarvabhadra*-variety of chess.

The 2nd variety of chess mentioned in the *Ms*s (5,615cd-623ab) is four-handed chess in which each player has before him – seen from left to right – a chariot, a horse, an elephant and a king on the 1st row, and 4 foot-soldiers or pawns on the 2nd row. Contrary to the rules of two-handed chess, this variety is played without a minister and each of the four kings may be taken¹⁶. Furthermore, the figures have certain values: the foot-soldier scores 1, the chariot 2, the horse 3, the elephant 4 and the king 6. However, contrary to what we know so far about the rules of four-handed chess, this variety is, according to the testimony of the *Ms*s, not played with dice and the pieces of the four players do not have the four colours red, green, yellow, and black, but only two, that is red and white.

The fact that the *Ms*s describes two-handed chess as well as four-handed chess touches upon a question which is still a matter of debate among chess-historians: namely whether four-handed chess is older than two-handed chess or vice versa. Unfortunately, the *Ms*s does not throw any light upon this problem. The only thing one can say is that the passage on two-handed chess is much longer and more detailed than that on the four-handed variety which invites the conclusion that the author of our text considered two-handed chess as the main form of chess whereas the four-handed form meant a minor and less important variant to him. Furthermore, it has to be observed that both descriptions, that of the two-handed and that of the four-handed form of chess are in no way logically linked with each other; they are just described side by side, and there is nothing which would hint at a genetic relationship between the two or prove that one can be derived from the other.

The entire text of the *Ms*s on chess and its varieties I have described above is all the more important, as it is so far the only document on chess

playing in the late medieval India written by an Indian. It is not before the 15th and 16th centuries that we come across two more texts which are believed to have been composed in Bengal: the *Tīhīatīra* (T) by Raghunandana, which was edited and translated for the first time together with annotations and a lucid commentary by Albrecht WEBER in 1872¹⁷, and the *Caruvāṅga-Dīpikā* (CD) ascribed to a certain Śūlapāni which has been made accessible to scholarly research by Manomohan GHOSH who in 1936 prepared an edition and translation of this text¹⁸. In both these texts, the T and the CD, the four-handed variety of chess which the author of the *Ms*s briefly mentioned after his detailed description of two-handed chess, has evidently gained the status of an independent kind of chess, but was, contrary to the *Ms*s, played in combination with dice. Before I enter into the details of these texts, I should say something about their mutual relationship. With most historians of chess it has gone unnoticed so far that the T and the CD have a considerable part of their texts in common: about 34 couplets in both these texts are nearly identical. GHOSH, the above-mentioned editor of the CD, has explained this by assuming that Raghunandana, the author of the T, has copied a large part from the CD¹⁹. However, on the ground of internal textual evidence which it is not necessary to explain here in detail, it seems just the other way round: a certain Śūlapāni, who may not necessarily be the same Śūlapāni known as a prolific writer of juridical literature in the 15th century, has drawn upon the T of Raghunandana.

The four-handed dice chess as described in the T and the CD, which is also mentioned by al-Bīrūnī in the 11th century, is apparently quite different from the two-handed chess of the *Ms*s: its aim was not to checkmate the king but to capture as many prisoners as possible. Nevertheless, in one point it is in agreement with the two-handed chess of the *Ms*s, namely with reference to the moves of the chess-pieces. They are described in the T (and CD) thus:

The king can move to the next square (lit. passing one square) in every direction. The pawn moves [to the square] in its front, but it can capture a piece placed in [squares next to] its front corners. The elephant, o king, can move at its will in the

17 Albrecht WEBER, "Einige Daten über das Schachspiel nach indischen Quellen", in: *Monatsbericht der Königlich Preussischen Akademie der Wissenschaften zu Berlin*. Gesamtsitzung vom Februar 1872. Berlin 1873, pp.59-89.

18 Cf. p.309, note 1.

19 Cf. GHOSH, p.XXXV.

16 na hantavyo nīpaś'ceṭi nīyamō mātra vidyate | caturṇām pāṇanam proklam tat karavyam paṇaḥ paṇaḥ || 5, 618.

four cardinal directions. The horse moves sideways [to] the next square after crossing three squares; the boat moves aslant, two squares at a time, o Yudin-sīhira²⁰.

Comparing this quotation with the *Ms*s it becomes obvious that the moves of the chess pieces called boat, horse, elephant, king and pawn in the *T*, and *CD*, are identical with those of the respective pieces in the *Ms*s, with the only exception that in the *T* and *CD* the elephant cannot leap like in the *Ms*: cf. diagrams no. 11 to 15 on p.327. The identical moves of the chess pieces are a very substantial common characteristic which binds together the otherwise totally different texts of the *Ms*s on one side and the *T* and *CD* on the other side.

However, the way of moving the chess pieces as described in the *Ms*s, *T* and *CD* evidently was not destined to survive to the present day. Apparently, it was given up under the influence of non-Indian chess rules. This becomes evident when we consider a still later text dealing with two-handed chess which dates back to 1600 or 1700 A.D. Being a rather short passage of not more than 16 verses, it forms part of a large encyclopaedia on matters of ritual, law and politics called *Nītimayāṭha* (N). It was composed by a certain Nīlakanṭha who, like Someśvara, the assumed author of the *Ms*s, lived in South India. It was again WEBER who in 1873 edited the N's short tract on chess and translated it into German with detailed annotations²¹. Later, MURRAY published an English translation in his *History of Chess* which in some cases seems to be preferable to that of Weber. As Weber has shown, the Sanskrit in which the text of the N is written is influenced by Persian terms. There are two technical terms, *durokhāṣa* and *kāfiṣa* which Weber supposed to be Sanskrit transliterations of Persian terms: *du-rokashāh*, meaning: two rooks-king, that is the game in which these pieces have their usual position and *kaf-i-shāh*, meaning: the migration of the king, that is the game of transposed king and rook²². But it seems that the Persian

influence is not only confined to linguistic peculiarities. It appears that chess as it was played in the Muslim countries is responsible for a substantial change in the above-mentioned moves of the chess pieces in Indian chess.

The relevant passage of the N, runs:

On the two centre squares of the last 8 squares stand the king and the counsellor, by them the camels, then the two horses, then the two elephants. In the next row are placed the 8 pawns [...] the king moves straight and aslant to 8 squares; the counsellor aslant only; the camel moves similarly but it passes over a square in the middle like a chain; the horse passes over a square different from the square lying in the straight line into 8 squares. The elephant moves straight out to all squares in its file. The pawn goes straightforward²³.

According to this description the horse, the counsellor or minister, the king and the foot-soldier or pawn have the same moves as already in the *Ms*s, the *T* and the *CD*. What is different are the moves of the figure in the corner of the first row – in the N, called elephant – and of the piece to the right of the horse, in the N, called camel. In the N, the figure in the corner, the elephant, does not move, like the respective piece in the *Ms*s, *T* and *CD* aslant to the next but one square, but straight out to all squares in its file like the rook in the Arabic chess: cf. diagrams no 16 and 17 on p.328; and the piece to the right of the N's horse, the camel, does not, like the respective piece in the aforementioned texts, the elephant, move straight out to all squares but like the elephant according to the Arabic method of the game: cf. diagrams 20 and 21 on page 328. In other words: compared with the *Ms*s, the *T* and the *CD*, in the N, the moves of the two pieces in the corner and to the right of the horse have been interchanged which I consider due to the influence of Persian-Arabic chess.

Beyond that, the N-passage on two-handed chess in some points has developed rules which distinguish it from the *Ms*s: for example, it allows three possibilities to bring the game to an end: checkmate, perpetual check and bare king. The first two are considered as wins, the last one as a half win. If the king is stalemated he is allowed to remove the piece which confines it²⁴.

23 *anyeṣv aṣṭapadeṣu madhyapadayo rājā, 'tha mantri, tayoṣ uṣṭrau pāṭśvavagan, tayoṣ apī tatthā vāhan, tayoṣ dantinau / talagadāharapantīgā vasmītiā śhāpyā budhātīḥ pātayāḥ ... rājā dīkṣu vidīkṣu cāṣṭapadago, mantri viliṇmātragaś cai-katam karabhasu śhīkhalatayā madhyam vīdhāpāram / vāji dīkpadato vīdīgata-padeṣv aṣṭau aho kuñjarāḥ pañctau sarvopadeṣv avakragimān patitīḥ puro gacchati //*, Nītimayāṭha (WEBER), v.4-5 (MURRAY's translation, p.64).

24 Cf. N, v.13 and 14 and their interpretation by MURRAY on p.66.

20 *koṣṭham ekam vilanghyātha sarvato yāti bhūpatih / āgra eva yāti yāti balaṁ hanv agrakonagam // yatheṣaṁ kuñjaro yāti catuṛdīkṣu mahipale / itiyak turāṅgmo yāti langhoyinā trikoṣṭhakam / komaṣṭhadavyam langhyā vajan naukā //* Tīhītatva (WEBER), v.6cd-8 = *Caturāṅg-Dīpikā* (Ed. GHOSH), v.13-14 (GHOSH's translation).

21 in: *Monatsbericht der Königlich Preussischen Akademie der Wissenschaften zu Berlin*, Sitzung der philosophisch-historischen Klasse vom November 1873, Berlin 1874, pp.705-735.

22 Cf. WEBER, *Monatsbericht* 1873, pp.722-725.

On the other hand, the *N* also mentions rules which are already found in the *Ms*. First, according to the *Ms* the pawn can apparently be promoted to the rank of a minister only after it has returned to its initial position (cf. above, p.311). This rule is also accepted by Nīlakanṭha, at least for those squares which are not marked with “geese-feet”²⁵. Second, in both texts the pawn is allowed to make an initial double step, although in the *N* this is only possible for the pawns on the a,d, and h files²⁶. Third, both, the *Ms* and the *N*, allow the possibility to begin the game from certain opening positions²⁷. This shows that despite the above-mentioned differences the *N* at least in part continues the tradition of the *Ms*.

A further stage of development of two-handed Indian chess is reached in the last of the 5 texts mentioned above. It is the so-called *Kṛīḍākauśalya* (*KK*), an encyclopaedia of all sorts of games which deals apart from chess and its variants with various board- and table games with and without dice, games of cards, a collection of the knight’s moves and an enumeration of outdoor games for children. It is of Central Indian origin and was composed in 1871 by Hārīkṛṣṇa, an Indian who lived in Aurangabad²⁸. Like the other texts mentioned so far, it consists of metrical verses in Sanskrit, but contrary to them it is supplemented by a Hindi commentary which is interspersed with passages in Marāṭhi. An extract of the *KK*, namely the section on chess and the knight’s moves, was published together with an English translation in 1982 by S.I. IYER²⁹. If one compares Hārīkṛṣṇa’s original book with Iyer’s publication, it becomes evident that Iyer’s extract is unfortunately incomplete. It leaves out important passages of the original text and what is worse, gives in more than one case faulty translations.

A careful study of the *KK*’s passage on chess shows that it is in large part founded on the aforementioned *N*. The latter’s description of the nomenclature and arrangement of the pieces on the chess board recurs

almost verbatim in the *KK*. On the other hand, however, its author Hārīkṛṣṇa has introduced various modifications the most important of which concerns the moves of the chess-pieces: whereas the moves of the elephant, the horse, the foot-soldier and the king remain the same as in the *N*, the camel moves aslant as far as it likes (v. 369) and the minister horizontally, vertically and diagonally to any field of the board (v. 370). In other words: in the *KK* – evidently under European influence –, the camel has the position and movement of our bishop and the counsellor the position and movement of the queen in modern chess: cf. diagrams no. 30 and 31 on p.330.

Among the further topics dealt with in the *KK* is the endgame which again has been modelled after the *N*, though with slight modifications: unlike the *N*, the *KK* evidently considers both, checkmate and bare king (= *burd*) as wins (v. 378), but in agreement with the *N* allows the possibility of perpetual check (v. 363), and does not concede the possibility of stalemate: in a stalemate position one can remove any power of the opponent (v. 364). Furthermore, a check given by a pawn or a camel is considered superior to a check given by the minister, an elephant or horse (v. 383). Interestingly enough, the *KK* illustrates the rules for ending the game by 12 diagrams which have been completely neglected by IYER although they are important for understanding the chess rules given in the *KK*. Let me give an example: The first diagram of the *KK* which I have reproduced as diagram no. 34 on p.331 is given by Hārīkṛṣṇa as an illustration for *burd* or *burjī*. White has only the king on b4 and the camel on c3, whereas Black is still in possession of the elephant on a7, three footsoldiers on b7, c7, and a6 as well as the king on b6 and the minister on c6. White begins and moves his camel from c3 to d4, thereby checking the black king. Black prevents the checkmate by moving his minister from c6 to c5. In the next move, the white camel takes the black minister on c5 and again checks the black king which escapes by leaping to d5. Thereupon, the white camel captures the black elephant on a7 and thus wins the game. Two important things can be learnt from this example: first, the king was allowed to make a leap like the horse; second, *burj* or *burd* did not really mean “bare king” but only a king which has left in its army nothing but pawns and no major pieces.

Last not least, the *KK* also describes some variants of chess. Among them it mentions chess played on a board with 144 squares (described in v. 436-440), with 196 squares (described in v. 441-445), and, interestingly

29 S.I. IYER, *Indian Chess*. Delhi 1982.

25 Cf. WEBER, *Monatsbericht* 1873, p.715; MURRAY, p.66.

26 Cf. MURRAY, p.66.

27 Cf. p.311-312 for the *Ms*.

28 *Kṛīḍākauśalyam, Bhāṣāitīkā-sametaṃ. Śrīmadbhajjyotiṣāraṇavamaṇahagranthakāra-śrīmadāraṇgabādhagaranivāsīśrīmadhārīkṛṣṇaenkaṭarāmopandītiavara-vivracam. Kṣemajāla Śrīkṣṇadāsaśreṣṭhīnā* Mumbaiyām svakiye “Śrīvenkateśvara” (śtīm)mudrānālaye mudrayitva prakāśitam. Sanvat 1957. Śake 1822. I am indebted to Prof. Dr. H. FALK, Berlin, for making available to me a copy of this important book.

enough, a variety which is very much similar to the *sarvatobhadra* which we have already met in the *Ms*: the king alone is fighting against the whole army of its opponent³⁰. However, whereas in the *Ms* the *sarvatobhadra*-variety of chess was played in combination with dice, in the *KK* it is played without dice which seems to show that even the combination of dice with minor variants of chess like the *sarvatobhadra* was only a transitory stage in the history of Indian chess. By the way, four-handed chess is conspicuous by its absence in the *KK*.

To sum up the various observations I have made in this article on Indian texts dealing with chess, I would like to point out the following results: Up to now, the *Ms* is the first Indian text we know of, which in detail describes the rules of two-handed chess and also mentions two varieties, four-handed chess played without dice and *sarvatobhadra*. It was composed in the 12th century A.D. somewhere in South or Central India. As we have seen, the game of chess according to this text is a symbolic depiction of the Indian army. The chess pieces of chariot, horse, elephant and foot-soldier correspond to the military forces of chariots, cavalry, and elephant and infantry. Even the minister had its counterpart in the Indian army, for we know that the king was not responsible alone for the conduct of war, but was supported by a commander-in-chief. It is important to note, however, that the power of the single chess pieces as described in the *Ms*, especially that of the chariot and the elephant, reflects the structure and organisation of the Indian army as it already operated in pre-Christian times up to the 3rd or 4th centuries A.D. but which at the time of the assumed composition of the *Ms* itself had long ceased to exist. While already at the time of the emperor Candragupta Maurya, who reigned from 321 to 297 B.C., the elephant in the centre of the army became most important for gaining the victory over the enemy³¹, the chariot lost in significance as early as the 1st century B.C. and vanished as a military force three or four centuries later³². It is these circumstances that seem to be reflected and preserved by the *Ms* in that the move of the chariot is comparatively limited,

whereas the elephant is the most powerful piece in the game. These observations seem to indicate that two-handed chess as it has been passed on to us in the *Ms* harks back to a time when the fourfold army consisting of chariots, cavalry, elephants and infantry was still active, that means to a time somewhere between the 4th century B.C. and the 2nd or 3rd centuries A.D.

We have also seen that all the later texts on chess – the *T* and *CD*, the *N* and the *KK* – are separated from the *Ms* as well as among themselves by large intervals of time. They differ from the *Ms* in many details and in part are even quite different in character like the *T* and *CD*. Nevertheless, these texts are not completely unconnected. As I have tried to show, they are linked by certain common features: the moves of the chess-pieces according to the *Ms* recur three centuries later in the two texts on four-handed chess, the *T* and *CD*; the *Ms* and *N* which are separated by at least four centuries have in common that the pawn – in the *N* under certain conditions (cf. p. 319) – can be promoted to the rank of a minister only after it has returned to its initial position and that the game may be started from certain opening positions. Furthermore, the *KK* partly founds its description of two-handed chess on the *N* and even testifies to the tradition of the *sarvatobhadra*-variety which already occurs in similar form 6 centuries earlier in the *Ms*.

The picture I have tried to draw of the development of Indian two-handed chess and its relationship with other variants and games like dicing is, of course, still rather incomplete as we have so far only five texts covering the very long period of 7 centuries. This situation should be improved, and I think it is possible. In the beginning of my lecture I mentioned that there are many texts in manuscript form which are still hidden in Indian libraries and elsewhere in India. The next step in the process of investigating into the history of Indian chess should be to make a critical edition of these texts and to give a reliable translation. Their subsequent interpretation would be a rewarding task for both, chess historians and Indologists.

Bibliography

- Arthaśāstra*, ed. Kangle, R.P.: *The Kauṭilya Arthaśāstra*. Part I: A Critical Edition With a Glossary. Bombay 2, 1969.
- DIKSHITAR, V. R. Ramachandra: *War in Ancient India*. (repr.) Delhi 1987.
- FERLITO, Gianfelice und ALESSANDRO SANVITO: "Protochess (Urschach) 400 Jahre vor bis 400 Jahre nach Christus", in: *Schach-Journal* Nr. 1/2 (1992), S. 102-107.
- 30 In the *KK*, it is called "the mad king's game (*cittubhramanpasya khalanam*) and is described in v. 536-540.
- 31 Cf., e.g., O. STEIN, *Megasthenes and Kautilya*. Wien 1921, p. 273, note 4.
- 32 Cf. V. R. Ramachandra Dikshitar, *War in Ancient India*, Delhi 1987 (1944), p. 165f. and G. FERLITO/A. SANVITO, "Protochess (Urschach) 400 Jahre vor bis 400 Jahre nach Christus", in: *Schach-Journal* 1992, p. 106.

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Appendix: Diagrams
 Moves of the chess pieces according to the *Manasollāsa*:

HARIKṢṢA: *Kṛtākaśālyam. Bhāṣāṭīkā-samētam. Śrīmadbhṛṭṭaḥṛṣyaṅaravamaḥāgrahṇa-kāraśṛmadauravāḥānagaravāśīrīmaddharibhṛṣṇavēnkatārāṇapāṇḍīyaviraviraciam. Kṣemārājā Śrīkṣṇadāsaśreṣṭhinā* Mumbaiyām svakīyē "Śhṛveṇkaṣeśvara" (śtīm)mudrāṇālaye mudrayitvā prakāśitam. Saṃvat 1957. Śake 1822.

IVER, S.R.: *Indian Chess*. Delhi 1982.

LUNDE, Antonius van der: *Geschiede und Literatuur des Schachspiels*, Bd. 1-11. Berlin 1874.

(ders.): *Quellenstudien zur Geschichte des Schachspiels*, Berlin 1881.

MURRAY, H.J.R.: *A History of Chess*. Oxford 1913.

NĪLAKAṆṬHA: Nītimayūkha: s. WEBER, A.: "Fortsetzung der Untersuchungen über das indische Schachspiel".

PETZOLD, Joachim: *Das königliche Spiel. Die Kulturgeschichte des Schach*. Leipzig 1987 (Lizenzausgabe der 1986 in Leipzig erschienenen Abhandlung: *Schach. Eine Kulturgeschichte*).

(ders.): "Entstehung und Symbolbedeutung des Schachspiels", in: *Das Altertum* 37 (1991), S. 38-47.

RAGHUNADANA: *Tīthitātva*. s. WEBER, Albrecht: *Einige Daten über das Schachspiel nach indischen Quellen*.

SCHWALM, Hansjörg: *Die Rolle des indischen Kriegswesens vor und während der Herrschaft Chandraguptas und seines Ministers Kautilya*. Osnabrück 1986 (Quellenstudien zur politischen Geschichte Bd. 4).

SOMEŚVARA: *Manasollāsa*, ed. Shrigondekar, G. K. Vol. III: Baroda 1961.

STEIN, Otto: *Megasthenes und Kautilya*. Wien 1921 (Akademie der Wissenschaften in Wien. Philosophisch-historische Klasse. Sitzungsberichte, 191. Band, 5. Abh.).

ŚŪLAPĀNĪ: *Caturāṅga-Dīpikā*, ed. GHOSH, Manomohan: *Śūlapānī's Caturāṅga-Dīpikā. A Manual of Fourhanded Dice-Chess*. Critically Edited for the First Time with Translation, Notes and Introduction. Calcutta 1936 (The Calcutta Sanskrit Series 21).

THIEME, Paul: "Chess and Backgammon (Tic-Tac) in Sanskrit Literature", in: *Indological Studies in Honor of W. Norman Brown*. American Oriental Society 1962, S. 204-216 = *Kl. Schriften*, S. 413-425.

WAKANKAR, Siddharth Y.: "A Survey of Sanskrit Works on the Game of Chess", in: *Journal of the Oriental Institute*, University of Baroda 35 (1986), Nr. 3-4, S. 293-303.

WEBER, Albrecht: "Einige Daten über das Schachspiel nach indischen Quellen", in: *Monatsbericht der Königlich Preussischen Akademie der Wissenschaften zu Berlin*. Gesamtsitzung vom Februar 1872. Berlin 1873, S. 58-59.

(ders.): "Fortsetzung der Untersuchungen über das indische Schachspiel", in: *Monatsbericht der Königlich Preussischen Akademie der Wissenschaften zu Berlin*. Sitzung der philosophisch-historischen Klasse vom November 1873. Berlin 1874, S. 705-735.

WIEBER, Reinhard: *Das Schachspiel in der arabischen Literatur von den Anfängen bis zur zweiten Hälfte des 16. Jahrhunderts*, (Diss.) Bonn 1972.

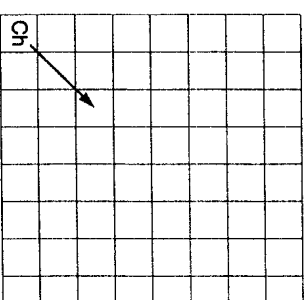


Diagram 1. Ch = Chariot

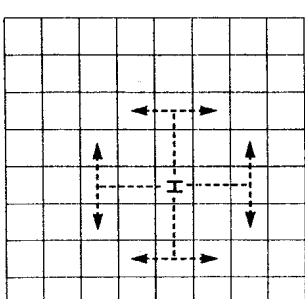


Diagram 2. H = Horse (= Knight)

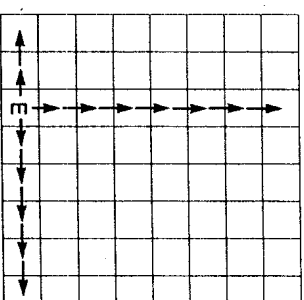


Diagram 3. E = Elephant

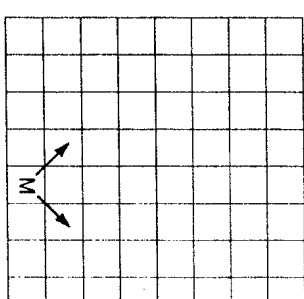


Diagram 4. M = Minister

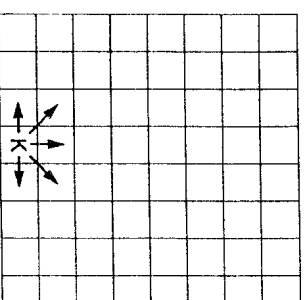


Diagram 5. K = King

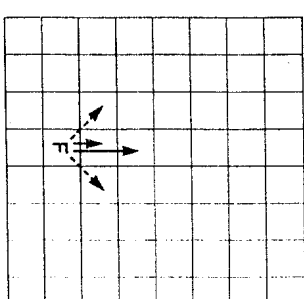


Diagram 6. F = Footsoldier (= Pawn)

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Mānasollāsa: the black King on h6 in a position of stalemate

[illegible]

Diagram 9

	ה						
ע		ה					
מ		ה	ה				
א		ה					
מ		ה					
מ		ה	ה				
ע		ה					
	ה						

Diagram 7
R = Rook

R = Rook

Possible arrangement of the chess pieces in the *gomūtra*-formation according to the Mānasollāsa

	F								
		F							
E		Ch							
K	H	F							
M	H	F							
E		Ch							
		F							
F									

Diagram 8

Mānasollāsa:
Checkmate of the black king on h8

	π				π	Ω
	π				π	
					π	
				π	π	
	π			π	π	
π	π					π

Diagram 10

Moves of the chess pieces according to the
Tithiattva and the Caturangadipikā

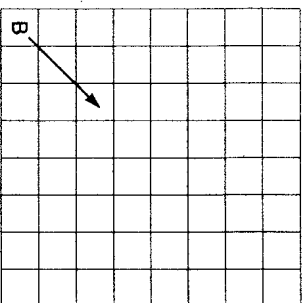


Diagram 11. B = Boat

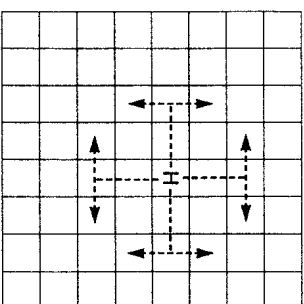


Diagram 12

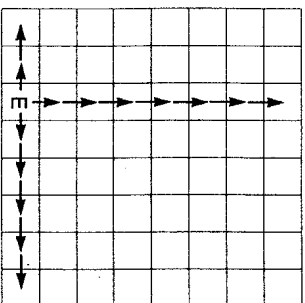


Diagram 13

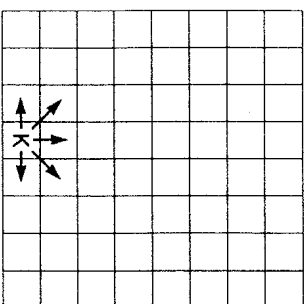


Diagram 14

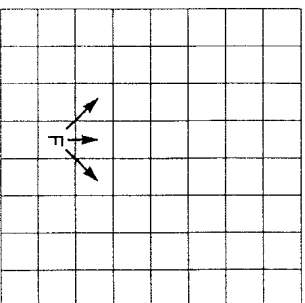


Diagram 15

Moves of the chess pieces
according to the Nītimayūkha

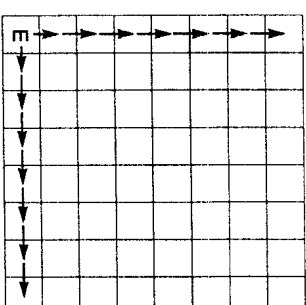


Diagram 16

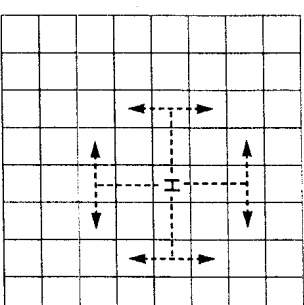


Diagram 18

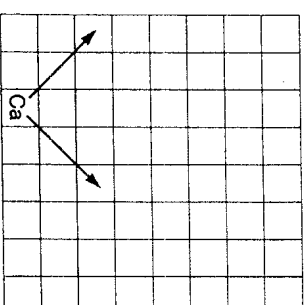


Diagram 20. Ca = Camel

Arabic chess rules

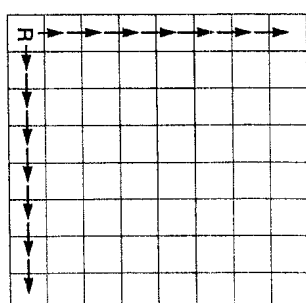


Diagram 17. R = Rook

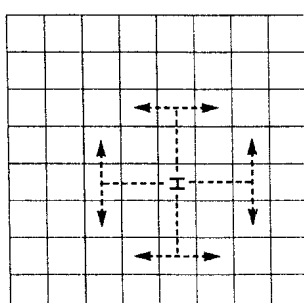


Diagram 19

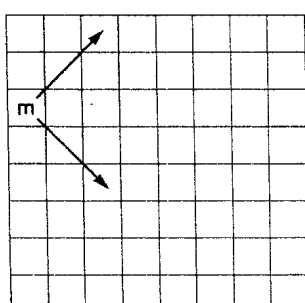


Diagram 21

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Nitimayūkha (continued)

Arabic chess rules (continued)

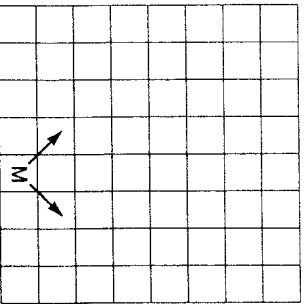


Diagram 22

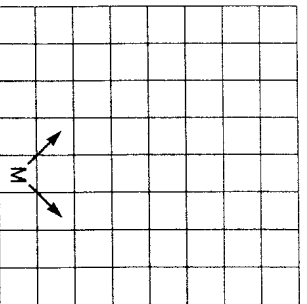


Diagram 23

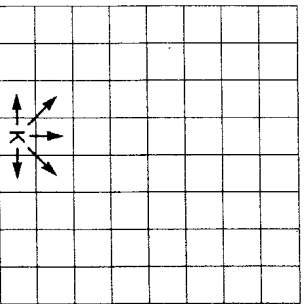


Diagram 24

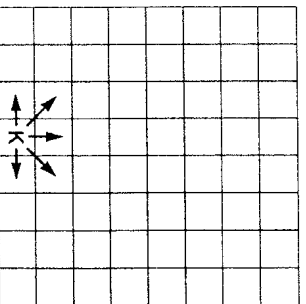


Diagram 25

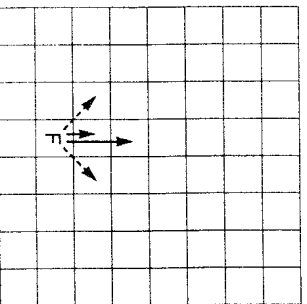


Diagram 26

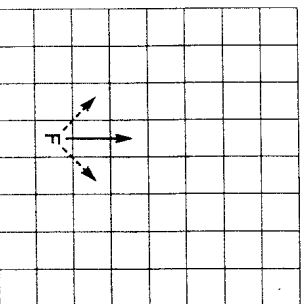


Diagram 27

Moves of the chess pieces according to the Kṛīḍākauśalya

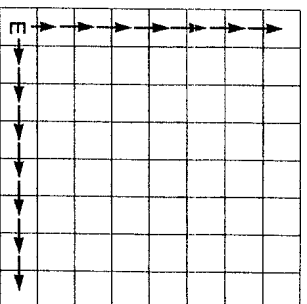


Diagram 28

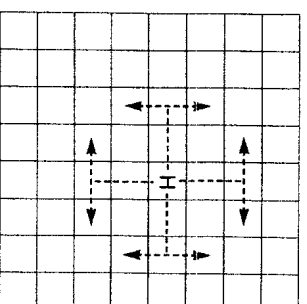


Diagram 29

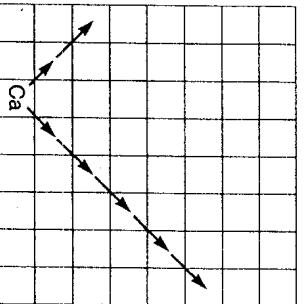


Diagram 30

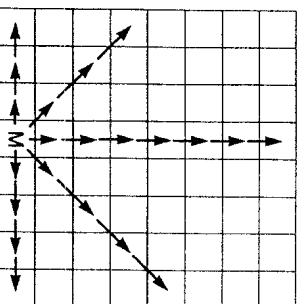


Diagram 31

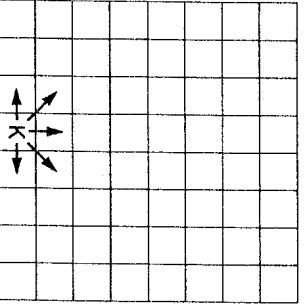


Diagram 32

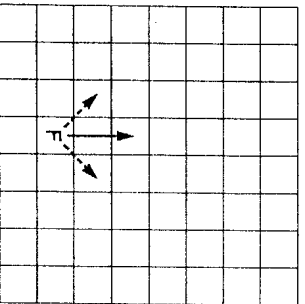


Diagram 33

[illegible]

Diagram 34

1. White: Ca c3 - d4 + Black: M c6 - c5
2. White: Ca d4 x c5 + Black: K b6 - d5
3. White: Ca c5 x a7: *burji*

Black: M c6 - c5
Black: K b6 - d5