

Gilles. Schaufelberger

Dice Game in Old India

**from the essay of
Heinrich Lüders**

**Das Würfelspiel im alten Indien
Berlin, 1906**

Introduction

I could finally lay my hand on an essay of Heinrich Lüders, written for the Scientific Royal Society - Philology and History - at Göttingen in 1905. As it brought many answers to my questioning about the way dice games were played in old India, and particularly in the Mahābhārata, I first translated it into French, and then tried to give a abstract in English. You see, from the beginning on, I speak of dice games: actually, a major difficulty in comprehending the dice game is that they are different sorts of dice and different types of games that are talked of in the same words. Another difficulty is that the commentators tend to describe the type of game of the text in terms of the one they know from their own time

Lüders has done a tremendous work tracing through Indian literature, from the Veda to some texts already written in Pali, the passages where game terms were mentioned. He quotes in his essay 270 passages coming from 52 different works¹.

I will hereunder summarise his essay, giving only the broad outlines, without entering into the details. The main stress will be laid on the dice game in the Mahābhārata. The passages directly translated from Lüders are in blue, to distinguish them from my version.

Dice

Under the generic term *akṣa*, very different type of dice are to be found. I will review them:

Vibhītaka Nuts: the fruits of the Vibhītaka tree, the size of a hazelnut, were called “the browns, *babhru*” in the Veda. They were the dice used in the oldest periods, from the Vedic to the ritual and the epic dice games. We will see later how they were played.

Cauri Shells, (*kaparda, kapardaka*) could have played the same role as the vibhītaka nuts. They could also have been played by counting those which fall the rounded side upside or downside. As they play a very secondary role, we will come no more on them.

Pāśaka (or *pāśa*): right prisms, about 7 x 1 x 1 cm for some, sometimes in gold or in any other matter, sometimes coloured. The four long sides are marked with dots (eyes, *akṣas*), generally from 1 to 4. In certain games played with three

¹ I give a list of the quoted works at the end of this article.

pāśakas, each one is marked with a special sign. *pāśakas* seems not to have been known in Vedic times

Accessories

dyūtamandala: a circle drawn in the earth around the gamblers. A gambler can't go out of it if he has not paid his debt.

phalaka, patṭaka: a tray on which the dice are thrown during the game or a tray on which the dice are placed before the game.

adhidevana, āstara, irīṇa: an area slightly dug in the ground on which the dice are thrown in order they can't roll everywhere.

aṣṭapada: a board on which pawns are moved according to the result given by the dice. For different types of game, the boards are different and could maybe have other names..

sāra: pawns moved on a board.

Number of dice

With the vibhītaka nuts a great number of those nuts was used (150, 400, more than 100 or even more than 1000 ...). With the *pāśakas*, according to the type of game, three dice or one dice thrown three times, two dice, one dice.

Throws (*ayas, āyas*)

aya is the generic name given to the result of a throw (we will see later other throws with the *pāśakas*, named *āyas*). There are four *ayas*: *kṛta*, *tretā*, *dvāpara* and *kali* (in some specific cases also five).. *kṛta* is the winning throw, *kali* the losing one.

- Vibhītaka nuts

With the vibhītaka nuts, the dice thrown on the *adhidevana* are divided in 4 equal parts. If there is no remainder (the number divisible by four), we have *kṛta*; if the remainder is three, we have *tretā*; if it is two, *dvāpara*; if it is one, *kali*.

a) **In the ritual games**, a certain number of dices are divided between the participants. In the Agnyādhēya, the father receives 12 dice from 49 (a *kṛta* amount), in the Rājasūya, 400 dice are thrown in favour of the king (a *kṛta* amount again), and 5 given to him, but he doesn't play with them.

b) **For the Vedic game**, Lüders wrote:

"How could we imagine the dice game in the most ancient times, that is difficult to say. **We could think for example that the gambler who challenges the other throws at first a certain number of dice on the *adhidevana* and that the second gambler must throw straight away a number of dice such as the total of the two throws be *krta* (divisible by four)"**

c) **In the Mahābhārata:** for Lüders, the dice game played in the epic was always a game played with Vibhītaka nuts, apart from some passages in Parvan IV. He wrote;

"The type of the dice game appears to be not different in the Mahābhārata and in the Vedic hymns. In the epic game, dice were obviously thrown; the sentence *akṣān kṣipati* in MBh III, 34, 5 proves it. Moreover, all the informations we can collect from the epic match perfectly with what we know about the ritual game. In the epic as we have seen, piling up of dice is also mentioned. In III, 34, 5, even and odd dice are mentioned:

*akṣāṁś ca drṣṭvā Śakuner yathāvat kāmānukūlān ayujo yujaś ca |
śakyaṁ niyantum abhavisyat ātmā manyus tu hanyāt puruṣasya
dhairyam ||*

The expressions *yuj* and *ayuj* are understandable only if the number of dice plays a role, like in the ritual game.

"Granted this hypothesis, a point in Nala's story that I didn't understand till now would be explained. We know that Nala, who, possessed by Kali, has always been an unlucky gambler, becomes again able to win when R̥tuparṇa passes the *akṣahṛdaya* on him. The exact circumstances are told in MBh III, 72. We are shown how Nala, in the guise of the chariot driver Bahuka, sets off with R̥tuparṇa and Vārsneya. R̥tuparṇa looks with envy at Nala's skill in driving horses and prides himself on his perfect command of the numbers (7: *samkhyāne paramāṇi balam*); he gives straight away a proof of his talent, by counting in a flash the leaves and the fruits of a vibhītaka tree which stood in the way. Nala is not convinced by the display; he stops the horses and wants to go down to fell the tree and count the fruits again. Only after a long harangue of R̥tuparṇa urging him to continue the journey, he contents himself with a partial test on a branch and finds out that R̥tuparṇa's count is right. Nala is amazed at this skill. R̥tuparṇa explains; "Know that I am acquainted with the dice's secret and that I am an expert on numbers" (26):

viddy akṣahṛdayajñām māṁ samkhyāne ca viśāradam |

"And now, Nala suggests they exchange their mutual talents. He promises R̥tuparṇa the *aśvahṛdaya*, the secret of the horses and receives immediately from R̥tuparṇa the great secret of the dice (29: *akṣānāṁ hṛdayāṇi param*). A soon as he possesses it, Kali gets out of him and enters the

vibhītaka. Nala is now able to win at the dice game. He comes back home, challenges Puṣkara and wins his kingdom again.

“This story leaves no doubt that the *asvahṛdaya* consists in the ability to count in the wink of an eye a big number of similar objects. It is blindingly obvious that such an ability was of the utmost importance for the game when the number of thrown dice was concerned. When, for example, the point was to bring the number of thrown dice by the adversary to a multiple of four, as I have supposed above, the victory came naturally to the gambler who was able to count in a flash this number².

“The relation between the counting ability and the dice skill is alluded to in *Sabhāparvan* (II, 59, 7). Śakuni praises a good gambler:

*yo vetti saṃkhyām nikṛtau vidhijñāś ceṣṭāsv akhinnah kitavo ‘ksajāsu |
mahāmatir yaś ca janāti dyūtam sa vai sarvam sahate prakrīyāsu ||*

“According to St Petersbourg Dictionary, *saṃkhyā* could be “an attentive examination of the pros and cons³”, as much as “a calculation”, But it seems impossible to me in this context that *saṃkhyā* is the same that the *saṃkhyāna* the gambler has to understand, according to MBh III, 72, 26. Therefore, I translate the verse on the following way: “The gambler who knows the numbers, who knows the rules in case of cheating, is tirelessly in the activity related to the game the one who is able of everything in the (*different game’s*) types⁴”,

“If I am right, once in the Veda, the matter is also about numbers. In Av. IV, 16, 5, Varuṇa says:

saṃkhyātā asya nimiṣo janānām akṣān iva śvaghnī ni minoti tāni ||

The meaning of the two last words is uncertain. I believe, in spite of the difficulties due to the gender, that *tāni* has to be completed by a concept like “the flutter of eyelashes”, and I would translate *ni minoti*, according to St Petersbourg Dictionary, by “to measure, to calculate”; “He has counted men’s

² Grierson (JRAS (1904, pp. 355 sq) has compared Rtuparṇa’s talent with the talent of modern *kāṇiyās* who value the crops of wheat or fruits. However interesting be this remark, it doesn’t explain the structural relation between the counting ability and the dice skill. Gierson seems not to have recognized such a relation, although it shows up very clearly from the whole story, and particularly from verse 26. On other minor points, I don’t agree either with Gierson’s interpretations. He thinks Rtuparṇa has challenged Nala to play “even or odd”, but there is nowhere a question of such a challenge. I believe even less that Rtuparṇa has chosen the vibhītaka tree to show his counting ability only because he was a good gambler. He could have chosen any tree to show his talent; the vibhītaka is chosen because Kali enters it afterwards.

³ Nīlakanṭha’s explanation is similar: *saṃkhyām samyak khyānam jayaparājayadvāra- vivekam.*

⁴ Nīlakanṭha explains *prakriyāsu* by *dyūtakriyāsu*; Böhtlingk, in P.W. translates by “by his energy”.

flutters of eyelashes⁵, he counts them like the gambler counts the dice”, But whatever the meaning of *ni minoti tāni*, Varuṇa is compared here with a dice gambler, and when it is said “he counts”, it is impossible for the numbers he counts to be others than those which play such an important role in the dice game, according to the Mahābhārata description.

“We have still to tackle another point. The game’s description, as it is given in MBh (II, 60 sq; 76), will seem to every reader, first surprising, then really incomprehensible. Śakuni, who plays for Duryodhana, and Yudhiṣṭhira are seated face to face. First Yudhiṣṭhira names his stake, then Duryodhana tells his representative what he has to stake as an equivalent. The storyteller goes on (II, 60, 9):

*tato jagrāha Śakunis tān akṣān akṣatattvavit |
jītam ity eva Śakunir Yudhiṣṭham abhāṣata ||*

“Śakuni then, who knew the art of dice, took the dice. “Won” said Śakuni to Yudhiṣṭhira”.

“Yudhiṣṭhira names straight away another stake. Again, immediately after that, it is said (II, 61, 3):

*Kauravāṇāṁ kulakaram jyeṣṭham Pāṇḍavam acyutam |
ity uktah Śakunih prāha jītam ity eva tam nr̥pam ||*

“The same dialogue is reproduced 17 times. Yudhiṣṭhira stakes all his treasures, his brothers and himself; every time, the issue is briefly announced in the same way:

jītam ity eva Śakunir Yudhiṣthiram abhāṣata ||

“Only the first sentence differs; in II, 61, 7; 11; 14; 24; 28; 31; 65, 5; 7; 9; 11; 16; 22; 26; 29, it is:

etac chrutvā⁶ vyavasito nikṛtiṁ samupāśritaḥ |

In II, 61, 18:

iti evam vādinām Pārtham prahasann iva Saubalah |

In II, 61, 21;

iti evam ukte vacane kṛtavairo durātmavān |

In II, 65, 14;

evam uktvā tu tān akṣān Chakunih pratyadīvyata⁷ |

Finally Śakuni commits Yudhiṣṭhira to stake Draupadī, and this he agrees to. It is said (II, 65, 45):

*Saubalas tu abhidhāya ivam jītakāsī madotkaṭah |
jītam ity eva tān akṣān punar evānvapadyata ||*

⁵ Sāyaṇa understands *sāṃkhyātā* as the Nom. Sing. of *sāṃkhyātṛ* and links it to *nimiṣaḥ* as a Gen. going with *asya*.

⁶ In II, 61, 7: *evam śrutvā*.

⁷ The words *evam uktvā* relate to Śakuni’s short sarcastic remark when Yudhiṣṭhira begins to stake his brothers.

The game's procedure is described in the same way for the second dice game. Śakuni draws up precisely what is at stake: the losing party will have to live twelve years in the forest and one year unrecognised among the men. It is then briefly said (II, 76, 24)

*pratijagrāha tam Pārtho glanam jagrāha Saubalaḥ ।
jītam ity eva Śakunir Yudhiṣṭhiram abhāṣata ॥*

It could be concluded from the complete silence of the text on Yudhiṣṭhira's throws that he, during all the game, never threw dice, but I believe that this conclusion isn't right. It isn't said either, in 17 of the 21 cases, that Śakuni throws the dice, and yet, as far as he is concerned, nobody doubts it. In one case (II, 65, 14), it is said however that "he plays in answer", *pratyadīvyata*, and that seems to suggest clearly Yudhiṣṭhira has thrown the dice before him. If the previous hypothesis on the game's procedure were correct, the description of the Mahābhārata would be perfectly clear: Yudhiṣṭhira names his stake and straight afterward throws a certain number of dice; Śakuni throws immediately such a number of dice that the total would be *kṛta*.

"Concerning the value of the *ayas* in the epic game, *kṛta* seems to always occupy the first place, while *kali* occupies the lowest. This last sentence becomes clear in Nala's story: Nala always loses because he is possessed by Kali, the personified losing throw. Thus the epic game is the same as the one we have recognized as usual in the Vedic times..

"Concerning the word *akṣa* in the Mahābhārata, it is always explained as *pāśa* by Nīlakanṭha. The description of the game between Śakuni and Yudhiṣṭhira in Sabhāparvan, between Nala and Puṣkara in Āraṇyaparvan, shows clearly that what is played here is the ancient Vedic game with Vibhītaka nuts⁸, that probably Nīlakanṭha didn't know. In few other passages, *akṣa* seems to designate *pāśaka*.. *akṣas* are mentioned in MBh, IV, 7, 1, that are made of cat's eye gem and gold⁹, in IV, 1, 25, black and red *akṣas* made in cat's eye gem, in gold, in ivory¹⁰, and if it is possible to reproduce Vibhītaka

⁸ I hope to prove that later on..

⁹ *vaidūryarūpān pratimucya kāñcanān akṣān parigṛhya vāsasā ।*

Nīlakanṭha, who had evidently in mind the Caupur or the Chess with dice, tries to complete *vaidūryarūpān* and *kāñcanān* *śārīn* interpreting them as *akṣān*: *vaidūryarūpān kāñcanāṇś ca śārīn । idam śvetaraktaśārīṇāṁ śariphalakasya copalakṣaṇam । akṣān pāśāṇś ca.* This construction seems impossible to me if I consider that the matter is about a dice game combined with a board.

¹⁰ *vaidūryān kāñcanān dāntān phalair jyotīrasaiḥ saha ।
krṣṇākṣāl lohitākṣāṇś ca nivartsyāmi manoramān ॥*

The second *pāda* isn't clear for me. Nīlakanṭha understands here *dāntān* as *śārīn*, and relates *vaidūryān*, *kāñcanān* et *jyotīrasaiḥ* to it, that would mean black and red. He analyses *phalaiḥ* as *śaristhāpanārthāni koṣṭhayuktāni kāṣṭhādimayāni phalakāni taiḥ*., by what he means "wooden board a.s.o., provided with fields for placing the pawns", and not as Hopkins (Position of the Ruling Caste in Ancient India, JAOS,

nuts or cauri shells in gold, their reproduction in gems, or ivory, or in different colours is very unlikely, and in any case, not confirmed elsewhere. In MBh, IV, 68, it is told how the king Virāṭa got angry with Yudhiṣṭhira during a dice game and, furious, hit him with a dice on the nose, making it bleed (45-46):

*tataḥ prakupito rājā tam akṣenāhanad bhṛśam |
mukhe Yudhiṣṭhiram kopān naivam ity eva bhartsayan ||*

“Here the word *akṣa* can’t designate a Vibhītaka nut, the size of a hazelnut, with which one can’t make somebody bleed. The author could only have a *pāśaka* in mind, which is long and heavy enough to wound.

“And it is certainly no accident if all these passages where *akṣa* can be understood as *pāśaka*, are found in Virāṭaparvan, i. e. the Parvan in which other lifestyles and customs appear, apparently more recent than in the others parts of the epic¹¹. I find no difficulty in admitting that *akṣa* has another signification in this fourth Parvan , which speaks about another type of game, than in the others¹²”

“According to all that, it seems evident to me that the Vedic game and the epic game are identical. With one exception only in the Virāṭaparvan whose author, as I have shown before, had in mind a game with *pāśakas*, probably combined with a game board; to which we will come back later on. The word *vṛṣa* in MBh III, 59, 6; 7 could make us think of a game with *pāśakas* if we understand it really as the name of a dice throw, because, from all we know, such a name could be found only in the game with *paśakas* and not at all in a game with vibhītaka nuts. But I believe this conclusion isn’t right; I rely for that on the argument I have given above against the interpretation of *vṛṣa* as the name of a throw. For, if we interpret *vṛṣa* this way, we would have to admit that the author of Nala’s story III, 59, 6; 7, had in mind a completely different type of game than in the rest of his work, which seems very unlikely”

Vol. XIII, p. 123): “an hollowed vessel for rattling the dice”. He has in mind the same game than in IV, 7,1. In the Harivamśa, it is also told about red and black dice..

¹¹ The reason for that is probably that, concerning the Fourth Book’s content, apart for the didactic parts, there is no former source by which the author could feel himself bound, while for the other books, he has to older descriptions at his disposal.

¹² I will return on this later on. A picture in the Bombay edition of this Parvan, on which Yudhiṣṭhira is depicted holding two *pāśakas* in hand, shows that the modern Indians imagine Virāṭa Parvan’s *akṣa* as a *pāśaka*. Concerning our problem, that proves nothing, for today as in Nīlakanṭha’s time, dice game is seen all over the Mahābhārata as a game played with *pāśakas*.

d) **in the Chāndyoga Upaniṣad and the Mṛcchakaṭīka**, the rule seems to be more complex: The stake is divided in ten parts, five brought by each player. The rule is:

*ubhayor dhane pratyekam daśadhā kṛte | yadi vādi ekāṅkam pātayet tadaikam
aṁśam dhanād dharet | dvyaṅkapāte pūrveṇa saha trīn aṁśāṁs | tryaṅkapāte
pūrvais tribhiḥ saha ṣaḍ aṁśāṁs | caturaṅkapāte pūrvaiḥ ṣaḍbhiḥ saha daśāpy
aṁśān hared iti.*

If the player makes *kali*, he takes one part of the stake (*dhana*), three with *dvāpara*, six with *tretā*, and all the ten parts with *kṛta*.

e) **In Pali Literature**: in some passages, the game is played with vibhītaka nuts.

“While in the Jātaka, the bad loser, every time he loses, hides a dice in the mouth what leads as a result to the game’s cessation, according to the Pāyasisuttanta he swallows up all the oncoming *kalis* (āgatāgataṁ *kaliṁ gilati*) and turns thus the game in his favour, for his adversary reproaches him for getting only winning throws (*tvam kho samma ekantikena jināsi*). ... The author of the Suttanta could only have had in mind the game with (swallowable) Vibhītaka nuts, and understood by *kali* the rest of the division by four; to swallow them shifted the throw from the losing to the winning one”

But the games are more often played with *pāśakas*.

- Pāśakas

Generally, the upper side of the *pāśaka* gives the result of the throw, from 1 to 4. There are many different ways to play with *pāśakas*.

a) **Oracle**: with three dice, each one marked with a sign: pot, discus and elephant, to give an order for reading the figures of the throw or with one dice thrown three times. Actually, the combinations do not have the same value: 421 is not equivalent to 124 or 214. There are thus 64 possible different throws, each one receives a name, called *āya*. I suppose that each *āya* has a particular meaning to read the future, like the 64 figures of the Yi King.

b) **With one or more dice**: We meet again our *ayas*, from *kṛta* to *kali* (the winner is the one who makes the winning *aya*, i.e. *kṛta* (*kata* in Pali), or our *āyas*, the winner being the one who throws the chosen *āya*. It seems to be a pure question of luck, but there is also a part of skill in this game. Once the dice thrown, the gambler can catch them into the air and throw them again. The Vidhurapañḍitajātaka tells:

“After the king has sung the Game’s Song and rolled the dice in the hand, he threw them in the air. Because of Puṇṇaka’s magical power, the dice were falling in the king’s disfavour. But, due to his great skill, the king realised that the dice were falling wrong. He picked them into the air, and threw them again. This second time, they were falling again in the king’s disfavour. He realised that and seized them again the same way”. ...

"The gambler's skill, as the storyteller highlights it, consists in recognising in the wink of an eye if the dice will fall in his favour or not (*rājā jūtasippamhi sukusalatāya pāsake attano parājayāya bhassante nātvā*)".

If we compare these Gāthās with the Mahābhārata we find the same expressions:

"Gāthā 91 says about the two gamblers: *te pāvisum akkhamadena mattā*.

The epic also knows the expression "intoxicated by the game", or "by the game's drunkenness": It appears even in *triṣṭubh*, to the detriment of *śloka*.. MBh II, 67, 4 reports the embassy of Draupadī:

Yudhiṣṭhira dyūtamadena matto Duryodhano Draupadi tvām ajaiṣit |

and she answers (5):

mūḍho rājā dyūtamadena matto hy abhūn nānyat kaitavam asya kiṇcit |

In *śloka*, for reasons of metrics there is a slight modification. In MBh III, 59, 10, Nala says:

tam akṣamadasaṁmattam suhṛdāṁ na tu kaścana |

nivāraṇe bhavac chakto dīvyamānam arimdamam ||

In the same way that Puṇḍaka had insisted before playing on the fact the game should take place without cheating (G.89-90): *dhammena jiyyāma asāhasena* and *passantu no te asaṭhena yuddham*, Yudhiṣṭhira insists as well on the "fair play" (MBh II, 59, 10;11:

dharmeṇa tu jayo yudhe tatparam na tu devanam |

ajihmam aśāṭham yuddham etat satpuruṣavrataṁ ||

These correspondances show the close link between the epic and the Gāthā's poetry".

c) **With a board.** Pawns are moved on a board, according to the result given by the dice. For different types of game, the boards are different, and it is very difficult to find which game is played and how. Sometimes, we have a description quite complete; Lüders gives for example Amaracandra's Bālabhārata (II, 5, 10 sq) where the game played between Śakuni and Yudhiṣṭhira is described in the following way:

"This text is about a dice game played on a board. In verse 11, there is talk of two dice (*akṣau*), like in Bharṭṛhari and Mayūra, and they are called *aṣṭāpadāṣṭāpadamūrdhni pātyamānau*. So each player uses one dice and one *aṣṭāpada*, the latter used as a game board, like the *phalaka* of the Jātakas"...

"The pawns are mentioned many times, and seem to be very important for the game: verse 10 tells us that Duryodhana was about to play with pawns against Yudhiṣṭhira (*sārai rantum*). The verses 13 and 14 show that they are one half black and the other red; they correspond thus to the colour of the dice. The verse 12 speaks of the clatter of the pawns moved from one field to

the other (*grhāntarāropāṇa*) and in verse 14 they are compared to the kings, for as the kings, they are put in, elevated, imprisoned and freed again.

*utthāpitāropitabaddhamuktaiḥ śyāmaiś ca raktais ca nr̄pair ivaitau |
śārair vicikrīḍatur ekacittau gamam̄ care ‘py ādadhatāv alakṣam¹³ ||*

The mention of pawns moving according to the result of dice's throws shows clearly that we are dealing with a variant, maybe with the ancestor of the TricTrac game or of the modern Pacīsī or Caupur¹⁴. The mode in which the pawns were moved was obviously similar to the present one, at least if we keep to Patañjali's commentary on Pāṇini (V, 2, 9) for the game in question¹⁵, which seems quite obvious. In the rule above, Pāṇini teaches us that *ayānaya kha*, i. e.. the taddhita suffix *ina*, has the meaning of "to move toward", and he adds:

*ayānayam̄ neya ity ucyate tatra na jñāyate ko ‘yah ko ‘naya iti | ayah
pradakṣiṇam̄ | anayaḥ prasavyam̄ | pradakṣiṇaprasavyagāminām̄
śāraṇām̄ yasmin paraiḥ padānām̄ asamāveśaḥ so ‘yānayaḥ | ayānayam̄
neyo ‘yānayīnah̄ śāraḥ*

"That means: to move toward *ayānaya*. But we don't know what is *aya*, and what is *anaya*? *aya* goes toward right *anaya* toward left¹⁶. When the fields in which the pawns arrive as they are moved to the right or to the

¹³ The last Pāda is incomprehensible for me, however I would say that *gama* et *cara*, according to Hemacandra, Anekārthasamgraha (II, 313, 405) are used with the meaning of *dyūtabheda* and *dyūtaprabheda*.

¹⁴ Maheśvara thinks obviously to these games when, in his commentary on Amara, he explains *akṣa*, *devana* and *pāśaka* as three synonyms of dice, "which allows the pawns' movement" (*śāripariṇayane hetubhūtasya pāśasya*).

¹⁵ According to Mac Donell (a. a. O., p. 121), this game would have been exactly the same than the present one. He says: This game is described this way in Patañjali's Mahābhāṣya: "Two opposed parties move with their pieces (*śāra*) to the right and then, after traversing the fields or squares (*pada*) on their own side, turn to the left and try to move into the position of the adversary". If we compare this description with the above quoted texts, we see that it shares not much with the original, but coincides marvellously with the way Weber (Ind. Stud. XIII, pp. 422 sq) depicts the German TricTrac game: "Bhāṣya's indications .. and Kaiyyaṭa's explanation ... don't left any doubt that the game in question is our TricTrac, in which the opposite camps move first to the right, then, after having crossed the fields on their side, turn toward the left and try to enter the position of the adversary.".

¹⁶ Weber (Ind. Stud. III, pp. 472 sq), who was the first to show the connexion between these passages of the Mahābhāṣya and Bartṛhari, thinks this explanation of *aya* and *anaya* has to be purely rejected and he translates *ayānayīna* by "(piece that) is exposed to luck and unluck, i.e. to chance", but we see no reason not to trust Patañjali's explanation. Macdonell (a. a. O.) goes farther and claims that this game was called *ayānaya*, luck and unluck), as shown in the above quoted texts. Patañjali doesn't absolutely speak of the game's name.

left are unoccupied by the pawns from the opposite camp, it is *ayānaya*. The pawn to move toward *ayānaya* is called *ayānayīna*¹⁷".

So we can follow this game until Pāṇini's time. However it seems impossible to me that this is the game which is thought of in the Mahābhārata, except in the quoted passages of Book IV and maybe in V, 69, 29 sq. In more recent times, it seems that the TricTrac game (if we could call it this way) has developed itself a lot, making the old dice game decline".

There are obviously many games played with dice and a board, but, contrary to Lüders, I don't think that the modern games, like Pachīsī and Cauri, could be derived from the TricTrac-like game described above.

Conclusion

According to this essay, we are quite certain that from the Vedic to the epic time, dice game was played with vibhītaka nuts. This kind of dice was used for ritual purposes with specific *modus operandi*, and for gambling. The numbers of thrown dice played a predominant role. Lüders tells us very cautiously (it could be thought for example ..) how he think the game was played (see pp 3-4, in bold, Vedic game). Then the vibhītaka nuts gave way to pāśaka dice which could be played alone for divination or gambling purposes, or with a board, giving way to the modern games.

Lüders is very humble concerning his work. He writes:

In conclusion to his article "On Vibhītaka Tree", Roth had to recognize: "How was this game going on and what was its purpose, nobody could tell". If I dare, in spite of that, deal with this difficult question, it is because a whole series of texts have appeared recently that could throw some light on the obscurity in which the dice game is shrouded. I think I could, thanks to them, bring some light, on some points at least. But, in spite of that, a lot remains unexplained and this new material itself brings new difficulties that I am not able to solve. I can thus consider this article only as a timid essay in a field that has known until now no satisfactory description.

¹⁷ From Kaiyyaṭa's explanations, we draw game rules that correspond perfectly with the present rules:

*sasahāyasya śārasya parair nākramyate padam |
asahāyas tu śāreṇa parakīyeṇa bādhyate ||*

Quoted Works

R̥gveda	Nirukta
Vājasaneyasaṁhitā	Pāṇini
Taittirīyasaṁhitā	Mahābhāṣya
Maitrāyaṇi ṣaṁhitā	Kāśikā
Kāṭhaka	Hemacandra Uṇḍigānasūtra
Atharvaveda	Amarakośa
Śatapathabrahmaṇa	Abhidhānaratnamāli
Taittirīyabrahmaṇa	Mañkhakośa
Chāndogya-Upaniṣad	Abhidhānacintāmaṇi
Lātyāyana Śrautasūtra	Anekārthasamgraha
Kātyāyana Śrautasūtra	Dīghanikāya
Āpastamba Śrautasūtra	Majjhimanikāya
Baudhyāyana Śrautasūtra	Saṃyuttanikāya
Mānava Śrautasūtra	Āṅguttaranikāya
Āpastamba Gr̥hyasūtra	Dhammapada
Hiraṇyakeśin Gr̥hyasūtra	Suttanipāta
Kauśikasūtra	Theragāthā
Āpastamba Dharmasūtra	Jātaka
Yājñavalkya Dharmasūtra	Milindapañha
Nāradasmṛti	R̥ṣabhapañca
Mahābhārata	
Harivamśa	
Bhāratamañjarī	Nīlakanṭha
Bālabhārata	Sāyaṇa
Kathāsaritsāgara	Durga
Bartṛhari	Kamalākar
Subhāṣitāvali	Agniswāmin
Mṛcchakaṭika	Rudradatta
Daśakumaracarita	Matṛdatta
Sthavirāvalīcarita	Dārila
Kathākośa	Yājñikadeva Paddhati
Bower MSS	Mahīdhara
Pāśakakevalī	Caturbhujamiśra
Nitimayūkha	Anandagiri
Tithitattva	Yāska
Jyotiṣa	

Quoted Commentators

Nīlakanṭha
Sāyaṇa
Durga
Kamalākar
Agniswāmin
Rudradatta
Matṛdatta
Dārila
Yājñikadeva Paddhati
Mahīdhara
Caturbhujamiśra
Anandagiri
Yāska

