

Gerhard Josten

CHESS - A LIVING FOSSIL

In memoriam Professor Joachim Petzold

CONTENTS

1. Initial considerations
2. The specific structure of the game of chess
3. A supplementary thesis
4. "How and why?"
5. Outlook

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Cologne, 2001

Chess – a living fossil

1. Initial considerations

Written sources and statutory artefacts on the one hand as well as theories, speculations and legends on the other have formed the more or less well-founded basis for the past thousand years for all those looking for the answer to the question as to how the game of chess came into being. The questions posed by **Egbert Meissenburg**¹ as to the "Who?", "Where?", "When?", "How" and "Why?" have not yet been conclusively answered despite numerous concerted efforts. One further source which up until recently had been rather underestimated is now becoming increasingly significant: the game itself. This can perfectly well provide additional information on its origins. Thus, five modern representatives will now be briefly and chronologically mentioned who have investigated chess from the viewpoint that the structure of the game and its kinship to other games must be given greater attention than in the past.

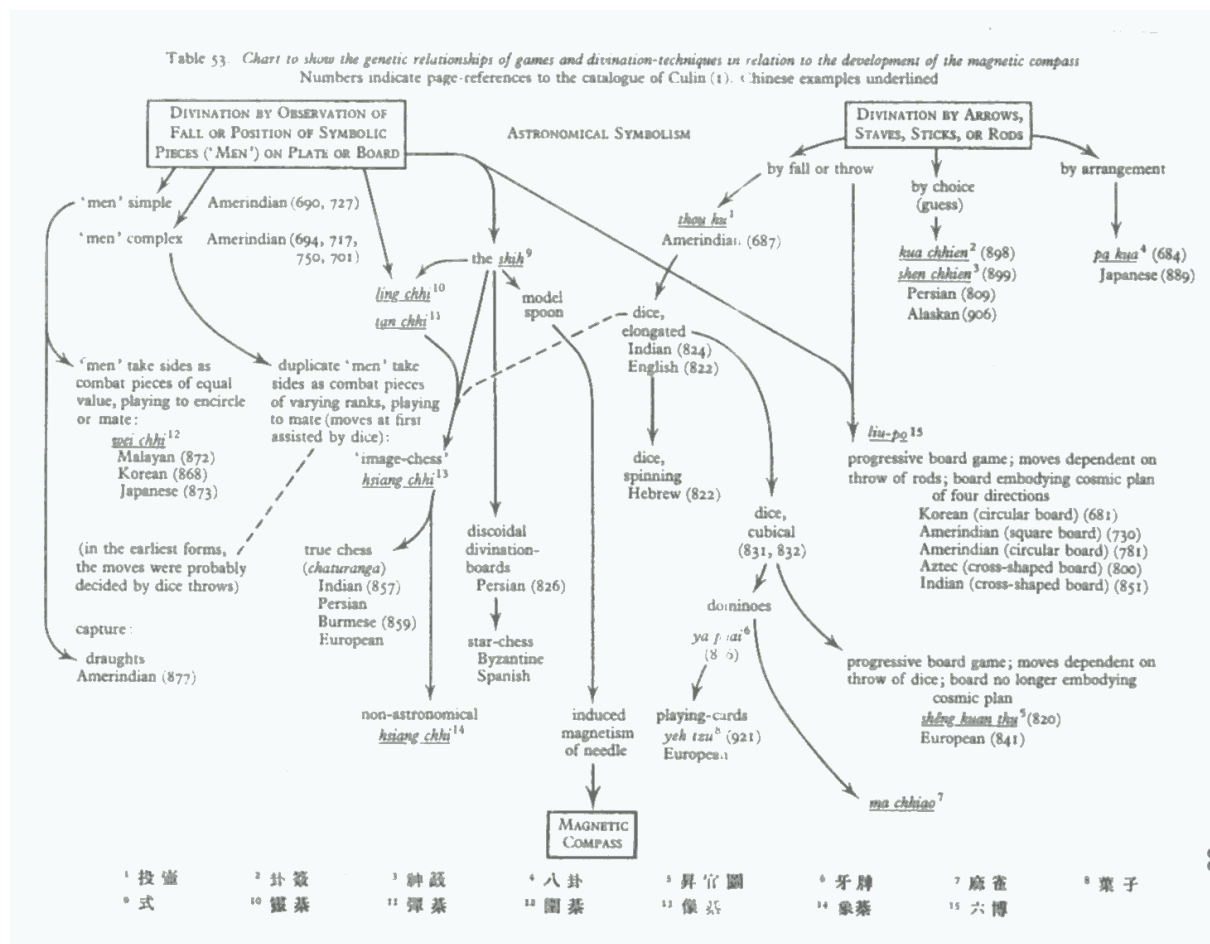


Fig. 1: Family tree of old games according to Needham

¹ Egbert Meissenburg, "Where Did Chess Originate?", Edited by Gerhard Josten and Egbert Meissenburg, Seevetal 1998, p.6ff.

A forerunner of this new movement was **Joseph Needham**². He was the first to free chess from its isolated position amongst all games in his 1962 book and suggested that divination could be a common origin of numerous games. He hereby left us a "family tree" of old games (cf. Fig. 1). He believed that the developments started from Chinese divination techniques, which led to numerous variants of chess through the integration of further elements. His findings led to him expressing the wish that: "*Some social anthropologist will produce some day a fully integrated and connected evolutionary story, quite biological in character, showing how these games and divination-techniques were genetically connected*"³. **Pavle Bidev**⁴ took a much narrower approach, even though this was in the same direction. Needham's comments encouraged him to investigate the structures of the Chinese and Indian/Arabian games more closely, from which he then deduced that, contrary to his conviction of many years, it was in fact the Chinese game of chess that was at the beginning of developments. The structures of this game gave Bidev the strength to openly admit his 35-years of blindness. **Yuri Averbakh**⁵ believes that the predecessors of today's game of chess first have to be investigated. During an

² Joseph Needham, "Science and Civilisation in China", Vol.4, Part 1, Cambridge University Press 1962, pp. 314-334: The Magnet, Divination, and Chess.

³ N. 2, section (IV), Comparative physiology of games

⁴ Pavle Bidev, "Das Schachspiel stammt aus China", Deutsche Schachzeitung, 121. Jahrgang, Nr.1, Januar 1972: "*Die Bibel der Schachgeschichte besteht aus dem Alten Testament von A. van der Linde, Geschichte und Literatur d. Schachspiels, 2 Bände, Berlin 1874, und dem Neuen Testament von H.J.R. Murray, a History of Chess, Oxford 1913, 1962. Die beiden Päpste der Schachgeschichte hielt ich 35 Jahre lang als unfehlbar. Ihre Behauptung, Indien sei Heimat des Schachs, war für mich ewige Wahrheit. Den ersten Verdacht erweckte bei mir die Arbeit von Joseph Needham..... Der indische Schachzauber verschwand für mich jenen Tages, als ich jedes Wort Murrays in seinem Kapitel „Chess in China, Korea and Japan“ unter die Lupe nahm. Ich war erstaunt, daß er in der Anm. 3, S. 120 schamhaft anerkannt hat, Schach sei tatsächlich eine chinesische Erfindung. Hier sein Bekenntnis: „The moves in the Chinese game are more restricted than those in the Indian game. At first sight, following the analogy of the Western development of chess, this suggests that the Chinese chess may preserve an older type of the game than we find even in the oldest Indian accounts, and even supports the view that chess is really of Chinese invention. But further investigations show that the whole tendency of the Chinese game has been in the direction of restriction of power or liberty, and hence I conclude that the restriction of move which we note in the case of these pieces is a Chinese modification of the Indian game.,, Chinesen haben, laut Murray, den König (General) in den Käfig von 9 Punkten gebannt und des Rechtes beraubt, schräge Züge zu machen. Der indische König macht 63 gerad-schräge Züge, der chinesische nur 12 gerade Züge. Chinesen haben weiter, laut Murray, auch die beiden Räte in den Käfig gebannt, wo sie nur 4 schräge Züge machen können. Der indische Rat macht 31 Züge. Chinesen haben, laut Murray, die Elefanten des Rechts beraubt, die Figuren zu überspringen und den Fluß zu überschreiten. Jeder indische Elefant verfügt über 8 eigene Felder, die 4 chinesischen Elefanten verfügen über 14 Punkte, auf denen sie sich kreuzen. Chinesen haben, laut Murray, die Bauern des Rechts der Umwandlung beraubt und ihre Anzahl von 16 auf 10 reduziert. Der chinesische Bauer darf schräge Züge erst im gegnerischen Lager machen. Chinesische Wagen (Turm) bewegten sich im 8. Jahrhundert (laut „Buch der Wunder,“) nur vorwärts auf einer Linie wie der Turm im japanischen Schach. Chinesen haben, laut Murray, auch den Springer des Rechts beraubt, andere Steine zu überspringen. Der japanische Springer geht nur vorwärts wie ein Turm und erst dann links oder rechts, einmal ging so auch der chinesische Springer. So kann er nur ein Paar Züge machen, der indische Springer macht 63 Züge. Schlußfolgerung: Chaturanga ist eine Weiterentwicklung des Hsiang Chi. Die erste große Reform der (chinesischen) Schachregeln hat im 7. Jahrhundert in Indien stattgefunden."*

⁵ Yuri Averbakh, Internet: www.netcologne.de/~nc-jostenge, under: "To the Question of the Origin of Chess": "*Starting this study the author proceeded from the following thesis: The history of chess cannot be studied without a proper knowledge of the history of other board games. First it is necessary to observe the games which had come into existence before chess appeared. Only after that we are able to understand the sources and reasons which guided to the origin of chess. The history of games in Old India shows that much simpler games were in existence before a complicated war game came into being. In particular, the direct predecessor was asthapada - a fourhanded race game on an 8x8 board where the movement of the game pieces was determined by the throw of dice."*

International Colloquium in the year 2001⁶ he provided more details of his ideas. He showed how chess may have developed in India against a certain historical background through mutations of its own games and external cultural influences. The starting point once again is the structure of the game. **David H. Li**⁷ chose a purely Chinese approach. According to Li, the Chinese Commander-in-Chief HÁN Xin developed the prototype of all chess games during a military winter recess by combining the two old Chinese games of Liubo and Weiqi into a new game, Xiangqi. Li devoted 60 pages of his book to this unification process as a detailed response to the questions posed by Egbert Meissenburg as to the "How and why"?, an interesting and useful story, even if it is not necessarily true, as **Peter Banaschak**⁸ has said. Nevertheless, it does show how such a process of combining two games could have occurred. And finally, mention should be made here of **Alex R. Kraaijeveld**⁹ with his biological approach. He investigated 40 variants of chess using phylogenetic methods and came to the conclusion that it was not the Chinese game of Xiangqi, but very probably the old Indian game of Chaturanga which was the predecessor of all chess games. Kraaijeveld himself admitted that phylogeny could not be transferred unreservedly to games since a genetic exchange could take place much more easily here than in the field of biology.

These relatively modern approaches to the history of the origins of chess, however controversial they may be, present a new opportunity which should not be left untapped. **In my opinion, they justify the thesis that chess may have developed into a new game through the integration of elements of various games.**

⁶ Yuri Averbakh in "Board Games in Academia IV", *International Colloquium, April 17-21, 2001, University of Fribourg (Switzerland), Abstracts*, p. 11

- "1. In a race game the game pieces have been named chariots or presented chariots.
- 2. The race game of the chariots has been transformed in a war game of the battle chariots.
- 3. The war game of battle chariots has been transformed in a war game of the four main battle forces of the ancient Indian army.
- 4. This war game could be played by four or by two players. In the last case the conception of check-mate has arisen.
- 5. The dice has been thrown away. It could happen because Indian people had been already acquainted with a wargame of the Greeks without dice petteia."

⁷ David H. Li, "The Genealogy of Chess", Bethesda, MD: Premier Pub., c1998. His answers: "Who? HÁN Xin (died 196 BCE), the commander-in-chief of the HÁN army. When? During a long winter reciprocal surveillance (204-203 BCE), when armies of HÁN and Chao (an ally of Chü), stationed on opposite banks of the Mian-Màn River to await the spring's arrival for a decisive battle. Where? In the field headquarters of HÁN army's commander-in-chief, HÁN Xin."

⁸ Peter Banaschak, "Eine vertane Gelegenheit: David H. Lis "Genealogy of Chess" aus ostasienwissenschaftlicher Sicht", *Rochade Europa*, 7/98, p. 49ff.

⁹ Alex R. Kraaijeveld, in "Board Games Studies", Vol.3, *International Journal for the Study of Board Games*, Leiden 2000, CNWS publications, ISSN 0925-3084, p. 39 ff: Origin of chess - a phylogenetic perspective. On p. 40 he writes:

"The third source of information, the game itself, is by far the richest at the moment. Many chess historians over the centuries have isolated similarities between variants to support their specific claim as to the identity of the ancestor of chess. A problem is that, in general, humans have a natural tendency to focus on pieces of information that support a certain hypothesis while paying less attention to those that contradict it. In other words, a step forward in using the available information contained within the game is to combine all the information in an objective way, without any preconceived ideas, and phylogenetic techniques offer exactly this possibility."

I am thus following the suggestion made by **Hans Holländer**¹⁰ of initially ignoring the names and forms of the chess pieces as well as the cultural history and instead concentrating on the structure of the game. I would like to put his thesis that the game of chess must have "arisen from a synthesis of a strategy game and a hunt game" into more concrete terms here.

2. The specific structure of the game of chess

The idea of letting chess speak for itself with respect to its origins first of all requires a definition of this game. We have a number of starting points here. However, were we to pick up on these here, this would at best lead to a new discussion, but not to any satisfactory results. I have thus chosen a different approach: I ask what makes chess so different from all other old games, i.e. what is its characteristic feature? Six chess games which can be extended at random will be presented for this purpose: FIDE chess, Xiangqi and Shogi as living variants as well as Indian four-handed chess, Byzantine chess and Arabian chess as extinct variants (cf. Fig. 2).

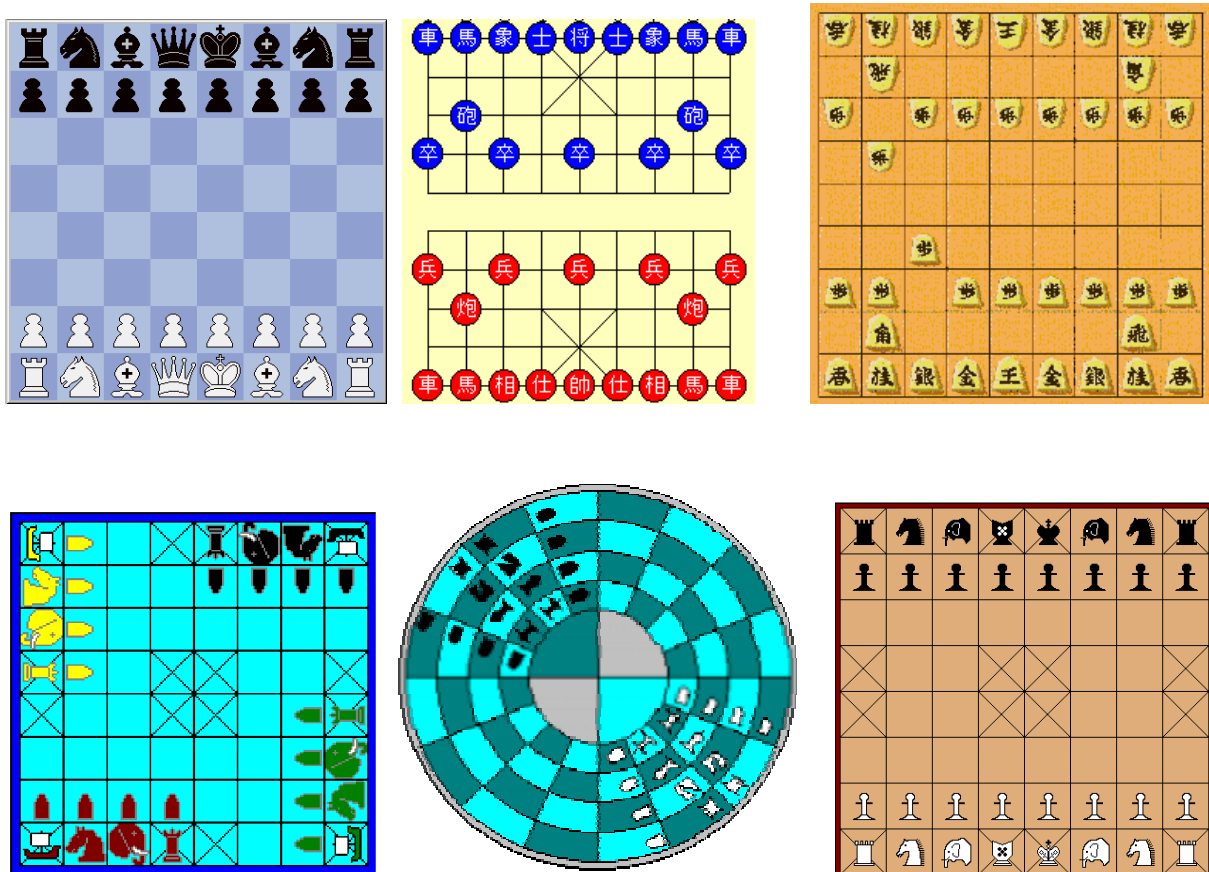


Fig. 2: Living and extinct chess variants

But just what is the outstanding feature of all of these chess games? All chess games differ from all other old games by one characteristic feature, namely that they have three different types of pieces. These are, listed in order of significance for the game:

¹⁰ Hans Holländer, "Thesen zur Früh- und Vorgeschichte des Schachspiels", in :Homo ludens, Der spielende Mensch, IV, Verlag Emil Katzschichler, 1994, p. 17ff.

- **Type 1:** A relatively immobile central piece, the goal of the game being to paralyse this piece. The way in which it can be paralysed varies. This rule does not apply in the game of four-handed chess.
- **Type 2:** A number of pieces which can make various longer moves and – with some exceptions – can move in all directions without restriction.
- **Type 3:** A number of pieces which can only move forwards, and if needs be sideways too.

All other characteristics of the game of chess such as the board, the symmetrical initial array, the capture of opponent's pieces, the central piece or the moves in alternation can also be found in other old Asian games. However, this concentration of three different types of pieces is unique in chess and will form the basis of my supplementary thesis.

3. A supplementary thesis

Following the ideas expressed in section 1 and supplemental to my former opinion¹¹ I advocate the thesis that chess developed by bringing together three games, which to this day are manifest in all variants of the game through the three different types of pieces. In this respect, I set forth the following partial theses:

3.1 Type 1 pieces and their idea come from China

Long before the turn of the era, two Chinese games existed which have a special relationship to the central piece in the game of chess. These are Weiqi, the goal of which is to encircle the opponent's pieces, and in particular Liubo, where **Röllicke**¹² is certain that it had a central piece in the sense of chess (cf. Fig. 3).

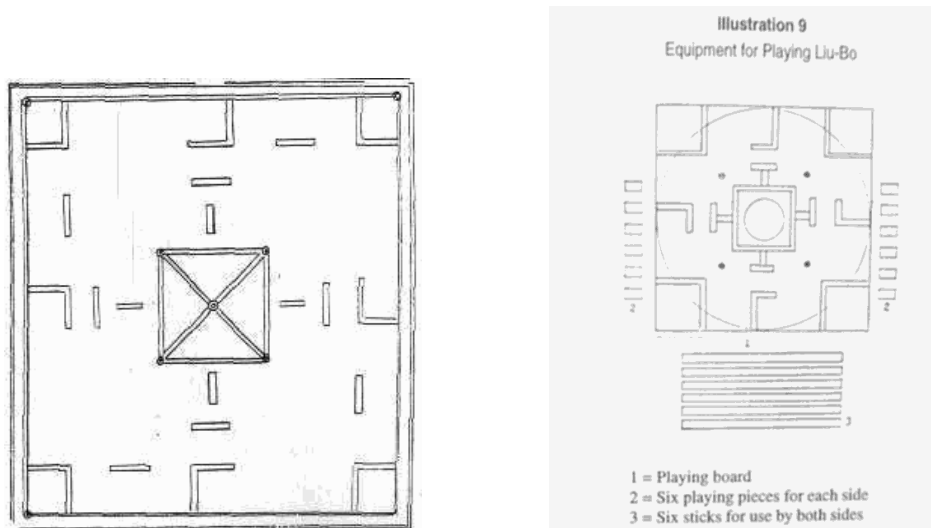


Fig. 3: Liubo according to Röllicke and Li

¹¹ Gerhard Josten, "Der Läufer war eine Dame", Rochade Europa, 1995, p. 75ff.

¹² H.-J. Röllicke in "Board Games Studies", Vol.2, International Journal for the Study of Board Games, Leiden 1999, CNWS publications, ISSN 0925-3084, p. 24 ff.: Von "Winkelwegen", "Eulen" und "Fischziehen" - liubo: ein altchinesisches Brettspiel für Geister und Menschen

The concepts of encirclement and a central piece appear for the first time in China. Incidentally, Liubo was also used for divination purposes, as proven by **Röllicke**¹³. The corresponding board, on the other hand, has nothing to do with chess, though there is one very important exception relating to the field in the middle of the board which will be dealt with later. We know of no game with a central piece before the existence of chess, with the exception of Liubo. If a game did provide the idea of a central piece for the game of chess, it can only have been Liubo according to our current knowledge.

3.2 Type 2 pieces and their idea probably come from Mesopotamia

The origin of this type of piece is controversial. One widespread opinion was, and still is, that the statuary representation of the old Indian army or military considerations at all formed the basis of these pieces. Joachim **Petzold**¹⁴ believed an origin from purely geometrical considerations possible. Ricardo **Calvo**¹⁵ sees their origin in magic squares. In line with, for example Steward **Culin**¹⁶, Joseph **Needham**¹⁷ or Nigel **Pennick**¹⁸, I believe type 2 pieces have their origins in old divination techniques. Unlike these authors, however, I am of the opinion that only these type 2 pieces and not the complete game of chess originate from these techniques¹⁹.

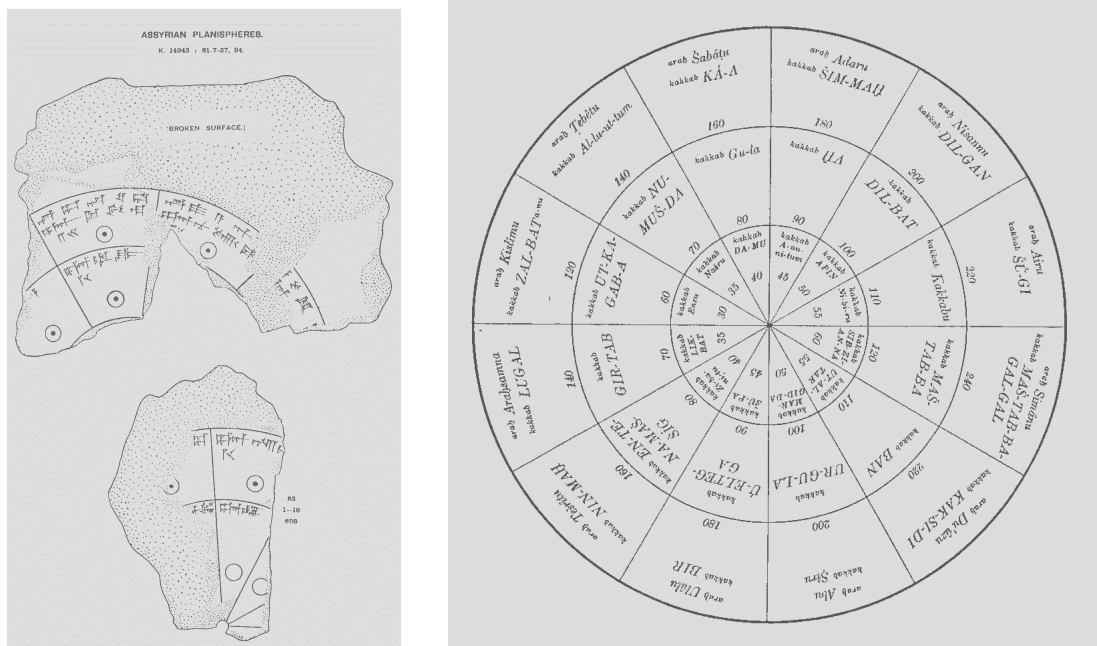


Fig. 4: Fragmentary astrolabes of the British Museum and reconstruction by Schott

¹³ N. 11, p. 31ff

¹⁴ Joachim Petzold, "Das königliche Spiel", Edition Leipzig, 1987, p. 36ff.

¹⁵ Ricardo Calvo, "Die Hypothese von Johannes Kohtz", in: Homo ludens, Der spielende Mensch, IV, Verlag Emil Katzschickler, 1994, p. 29ff.

¹⁶ Steward Culin, "Chess and Playing Cards", Washington, 1895.

¹⁷ N. 2

¹⁸ Nigel Pennick, "Games of the Gods. The Origin of Board Games in Magic and Divination", Century Hutchinson Ltd. London, 1988

¹⁹ N. 11

Until we find any better arguments, the Babylonian astrolabe²⁰ is an adequate ideal for type 2 pieces (cf. Fig. 4). It divided the firmament into twelve sectors and three celestial planes and was used together with the huge collection of astronomical omnia called "Enuma Anu Enlil".

The astrolabe shows the Babylonian firmament in 12 x 3 celestial houses, but not the seven planets known at that time, which in those days represented the main gods. These went their different ways on the geometric grid of the astrolabe as statuary images of the gods and served the Babylonian fortune-telling priests as a basis for their oracles. The different movements of the planetary figures may have been the starting point for type 2 pieces, i.e. survivors in the sense of Culin. The following arguments would appear to support this thesis:

- No device of this type is better documented in literature and illustrations than the astrolabe.
- The geometry of the astrolabe allows all of the important type of moves in chess.
- It may explain why old reports on chess such as Masudi's²¹ speak of the divine relationships of the chess game.
- In the first half of the ninth century AD Mesudi²² reports that at that time there were six different types of chess games, including the circular Greek game and the astronomical or celestial chess game.
- The external kinship of the astrolabe to the Byzantine chess board is obvious.
- Eight centuries ago, Jacobus de Cessoles stated that the game of chess was invented in Babylon, the home of the astrolabe too. More than just a legend?

I explicitly state that a different origin of this type of piece is not impossible.

3.3 Type 3 pieces and their idea almost certainly come from India

No other region in the world is more well-known for old race games with undifferentiated pieces and simple boards than the Indian sub-continent. Neither the Near Eastern regions nor China can offer such a variety of games, which are normally played with dice. Two examples of board games will be shown here (cf. Fig. 5):

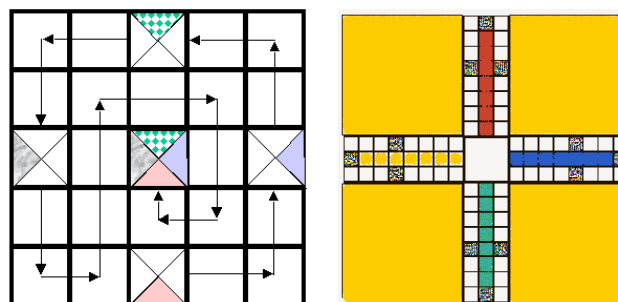


Fig. 5: Thaayam and Pachisi / Chaupur

²⁰ A. Schott, "Das Werden der babylonisch-assyrischen Positions-Astronomie und einige seiner Bedingungen", Zeitschrift der Deutschen Morgenländischen Gesellschaft Nr.88, 1934, p.302ff

²¹ Antonius van der Linde, "Geschichte und Literatur des Schachspiels", Edition Olms, 1981, p. 2

²² Antonius van der Linde, "Geschichte und Literatur des Schachspiels", Edition Olms, 1981 p. 66

- **Thaayam.** This is a typical Indian race game with dice upon which **Yuri Averbakh** based his first considerations. Each player had four identical pieces. The goal was the central field on the board.
- **Pachisi / Chaupur.** This is the national game of India. Since we know it as "Ludo" it requires no further explanation.

The elements of these games are to reach the end field and to capture opponent's pieces on the way, whereby the pieces cannot move backwards. This is precisely the function of type 3 pieces in chess. If a certain region did provide this type of piece for the game of chess, then all indications point to the Indian region. The question as to the origin of the promotion of a piece on the final field of the chess board, which is unknown in race games, must remain a mystery for the time being.

4. "How and why?"

Various arguments have been put forward for the place of origin of the game of chess, varying over the course of history from the Near East via India through to China. In his book, **Li** has documented this history from his point of view, starting with **Jacobus de Cessoles** and ending with **Egbert Meissenburg**. He hereby discovered 13 votes for India, 6 for China, 1^{1/4} for Babylon and further individual votes. This list is rather arbitrary. **Petzold** for example, an important chess historian, is completely missing from this list. This may be due to the fact that **Petzold** does not easily fit into the "Either-Or" scheme of former research, and thus in **Li's** scheme. **Petzold** was, in my opinion, the first researcher at all who considered the possibility of a parallel development of the Indian and Chinese games of chess. In a frequently overlooked passage in his work, he does not rule out the possibility of an independent development of the Chinese game of chess²³. I would like to follow this idea.

If we now return to the three type of pieces, a tri-parallel development of various chess games is conceivable. Here my concluding thesis:

- The Near Eastern astrolabe with its differentiated pieces assimilated the Chinese central piece and the Indian race pieces. **The result in the Near East would have been a game of chess played on a circular board: a game like Byzantine chess.** The game did not survive in this form. Whether and how its circular board was replaced by a square grid in a further phase and became the predecessor of the Western game of chess will have to be clarified at a later date.
- The Near Eastern differentiated pieces and the Chinese central piece were added to the Indian 8x8 board for **Asthapada** with race pieces and the use of dice. **The result in India would thus have been four-handed chess, the first Indian type of chess at all, a game that practically no longer exists today.** The dice and the game for four was retained whilst the Chinese central piece lost its function.
- The Near Eastern differentiated pieces and the Indian race pieces were adopted in the as yet unknown, early form of the Chinese chess game **Xiangqi**. **This led to a game in China which, under the influence of Liubo and Weiqi, experienced its own separate development, the individual phases of which we still know little about.** The river on the **Xiangqi** board, unknown in all other chess games, almost certainly came from **Liubo**,

²³ Joachim Petzold, "Das königliche Spiel", Edition Leipzig, 1987, p. 19

the central field of which according to Röllicke²⁴ was called "Water". I regard this a further, very important indication of the kinship of old games.

The question posed by Jean-Louis Cazaux²⁵ as to the origins of the Chinese and Indian games of chess: "A common ancestor or a parallel evolution ?" is thus answered in complete agreement with him as follows: "They are issued from different games but they mutually influenced each other." But what could be the reasons for the unification process that I suspect, and how did this take place? Li has provided a fine example for the second part of this question²⁶. Of course, it is quite clear that it is much easier to derive chess from the three game concepts that I have named in terms of game techniques, than from a combination of Liubo and Weiqi alone. I will thus dispense with a detailed technical explanation of the process at this point. The question as to the causes of this type of process on the other hand, is not as easy to answer.

If this process did not take place in one of the formerly suspected regions, then according to my thesis there must have been a Central Asian culture which had intensive contact to the Near East, India and China. It would have combined various elements of games from these regions in one game and then "re-exported" this unification idea to the home regions. Further research is needed here, whereby the prevalent opinion is that this should concentrate on the turn of the era as the earliest beginnings for chess. A first glance at the distribution of power at this time in the Central Asian region shows that the Kushan Empire is a top candidate since it ideally meets all requirements in terms of geography, time and culture (cf. Fig. 6).

This empire reached its prime during the reign of the ruler Kanishka²⁷. The Kushans merged the influences of various cultures from Greece to Mongolia into their own style in a masterly

²⁴ H.-J. Röllicke, in "Board Games Studies", Vol.2, International Journal for the Study of Board Games, Leiden 1999, CNWS publications, ISSN 0925-3084, p. 29

²⁵ Jean-Louis Cazaux, Internet, <http://www.chez.com/cazaux/ancestor.htm>
"Chatrang (or Chaturanga) and Xiangqi have obviously a lot of commonalities. What does that mean for their origin ? People in Asia were playing race games, territory games and fighting games before they knew about chess. The great idea has been to differentiate the « men » on the board and have different characters for them as in a real battle. I think that behind this differentiation process it should have been some logic. They are three possibilities concerning the possible birth of those two games :

- *one game gave birth to the other,*
- *both games have a common ancestor,*
- *they are issued from different games but they mutually influenced each other."*
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²⁶ N. 2

²⁷ Internet, <http://www.geocities.com/CapitolHill/Embassy/6817/kushan.html>:
"A unique feature of Kanishka's empire was that with the capital at Peshawar its frontiers touched the borders of all the great civilizations of the time, while its Central Asian provinces lay astride the Roman-Middle East-Chinese trade routes. Roman Empire during the days of Trajan and Hadrian (98-138 A.D.) had expanded furthest East almost touching Pakistan's Kushan Empire. Similarly, Kanishka's conquests had brought Khotan, Yarkand and Kashgar within Pakistan's jurisdiction effecting direct contact with China. This was one of the most important factors in providing impetus to art and architecture, science and learning in Pakistan. The best specimen of Graeco-Roman art discovered in and around Peshawar, Swat and Taxila belong to this period, mostly executed during the 2nd century A.D. in the reigns of Kanishka and his son Huvislika. The Kushans exchanged embassies with the Chinese as well as the Romans. Mark Antony had sent ambassadors, and the Kushans sent a return embassy to the court of Augustus "In the middle of the first century of our era, one of the Tokhari princes belonging to the Kushans, Kujula Kadphises, unified the dispersed Tokhari principalities. As he grew stronger, the leader of the Kushans extended his suzerainship to the lands south of the Hindu Kush, in the Kabul Basin and on the Upper Indus." Kujula Kadphises's successors, the most prominent of whom was Kanishka (circa A.D. 78-120) kept on the expansive policy of his subcontinent (Kashmir, the Punjab and Sind). The rulers of Gujrat,

manner. The following statement, taken at random from the Internet, is typical: "The Kushans became affluent through trade, particularly with Rome, as their large issues of gold coins show. These coins, which exhibit the figures of Greek, Roman, Iranian, Hindu, and Buddhist deities and bear inscriptions in adapted Greek letters, are witness to the toleration and to the syncretism in religion and art that prevailed in the Kushan Empire."



Fig. 6: Central Asia 100-200 AD

Isaak Linder²⁸ is, as far as I know, the only chess historian who has suggested the Kushan Empire as a potential candidate for the genesis of chess and presented pieces from the 2nd century AD, found in 1972 during archaeological excavations in the Bactrian settlement of Dalversin-Tepe, a citadel from the later Kushan Empire (cf. Fig. 7). **Linder** believes that these pieces belonged to a game which predates "Tschaturanga"²⁹. **Meissenburg**³⁰ has not left this opinion unchallenged. Perhaps we are only at the very beginning of our work!

Rajasthan and the states lying in the Ganges-Jumna doab were the vassals of the Kushan kings. The Kushan kings also held control of the territory of the present day Afghanistan, Kashgar, Khotan, Yarkand and the southern areas of Middle Asia. Ghandara i.e., the territory lying in the valleys of the Kabul and the Middle Indus, became the centre of a vast empire. The city of Purushapura (the present-day Peshawar) is known to have been the capital of Kanishka."

²⁸ I.M. Linder, "CHESS IN OLD RUSSIA", Publishers Michael Kühnle, Zürich 1979, p. 17

²⁹ I.M. Linder, "Schach", H.G.S. Verlag, Moskau 1994, p. 58

³⁰ Egbert Meissenburg, "Zu den - angeblichen - Schachfiguren aus Süduzbekistan" in "Rochade" Nr. 143, Maintal 1976, pp. 19-23

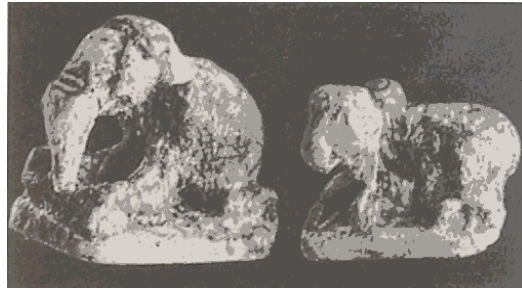


Fig. 7: Pieces according to Linder

5. Outlook

The National Museum of Afghanistan is proud to have the so-called Rabatak stone within its walls. This is a 2000-year old, one and a half metres high block of sandstone whose inscription contains the instruction from the Kushan ruler to his best master builders to build a shrine for the gods. This would be nothing special in connection with the game of chess and we could get back to daily business, were it not for the fact that this stone refers to Buddhist, Hindu and Zoroastrian gods, who are to be honoured on equal terms. The Kushans, who were able to combine these various religions in this open manner, the most striking syncretists of their age, were, in my opinion, thus more than capable of combining simpler things than religion. Because undertaking to combine various games in one new game is virtually an obligation and at the same time child's play for the Kushans.

I found four maps of the Kushan Empire on the Internet, whose different drawings of the borders reflect both the interests of their authors and the fact that there is a considerable lack of information (cf. Fig. 8):

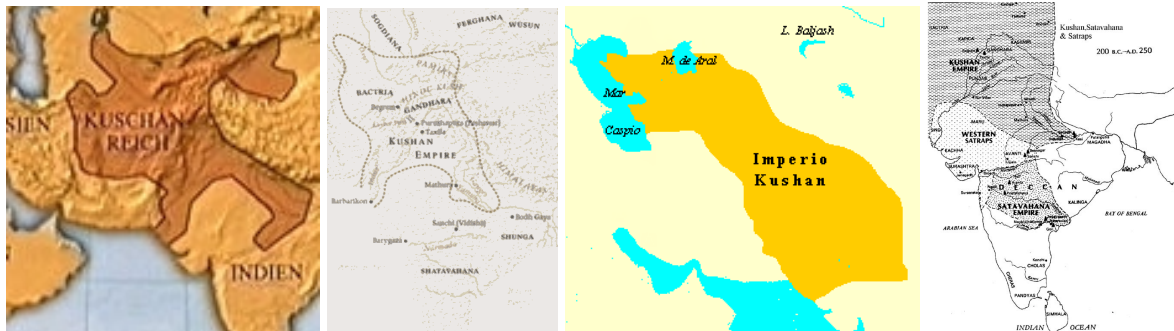


Fig. 8: Maps on the Kushan empire

There may be a similar lack of information regarding the genesis of the game of chess. But who is researching the lost Kushan Empire for traces of chess?³¹ As yet unknown literary sources and artefacts are very probably awaiting their discovery and academic evaluation. **Victor Keats**³² for example, is convinced that he can prove the existence of the game of chess in the Parthian Empire, a direct neighbour of the Kushan Empire, around 225-226 AD.

³¹ Recommended literature : "History of Civilizations of Central Asia, Volume II : The Development of Sedentary and Nomadic Civilizations, 700 B.C. to A.D. 250" /edited by Janos Harmatta. Delhi, Motilal Banarsidass, 1999, 573 p., maps, plates, figs, ISBN 81-208-1408-8.

³² Victor Keats sent me his respective dissertation by a letter, dated Mai 30th 2001

I would like to modify my former opinion³³, that the area around Kashgar may have been the origin of chess, and extend this to the Kushan Empire with its capital Peshawar, an empire which also once included Kashgar.

Vae victis! Boris Stawiski calls the Kushan Empire a forgotten empire in his book "Die Kunst der Kuschan"³⁴: The triumph of Islam in Central Asia would have led to the extinction of the pre-Islamic past. Stawiski does not show the borders of the Kushan Empire, apparently for good reason, but only shows the geographical situation in Central Asia. What could that mean for our topic?

Following the gradual disintegration of the Kushan Empire, the neighbouring conquering states each claimed to be the intellectual authors of chess, with no mention of the losers of the battles, the Kushans (Or did **Thomas Hyde** find a hidden indication during his research?³⁵). The fall of the Kushan Empire may thus be the main reason why so many facts have been lost and so many unbelievable legends have arisen around the genesis of chess: The idealistic work of the Kushans was replaced by a variety of legends, as already mentioned before, which could not be more colourful.

The core of my thesis is thus: Military, divinatory, mathematical or other theories did not create chess, these theories followed the game of chess. Rather, the systematic combination of sophisticated game concepts in the Kushan Empire were the beginnings of this game.

So these are my answers to the questions of **Egbert Meissenburg**³⁶:

- **Who?** ▶ **The Kushans**
- **Where?** ▶ **In Central Asia**
- **When?** ▶ **Between 50 BC and 200 AD**
- **How?** ▶ **By systematic combination of three sophisticated game concepts**
- **Why?** ▶ **Because of the Kushan syncretism**

And finally, the thesis of an intercultural development of the game of chess along the Silk Road with the melting pot of the Kushan Empire may help the centuries-old debate on "Either-Or" (Persia or India or China) out of it's dead-end street. Nearly all chess historians would thus be right to a certain extent - or would have been right, regardless of where they suspected chess as having its origins, but only in part. I could put this more positively: I believe that it is only thanks to the variety of reports, theses and legends over thousands of years, which as **Petzold** so succinctly put it sometimes contain a speck of truth, that a promising, but as yet to be verified scent has been uncovered which points towards Kushan.

I hope that my reflections and theses have a stimulating effect so that we can finally come a little closer to understanding the "Melting Pot of Chess" through our concerted efforts, and

³³ Gerhard Josten, in "Where Did Chess Originate?", Edited by Gerhard Josten and Egbert Meissenburg, Seevetal 1998, p.17ff.

³⁴ Boris Stawiski, "Kunst der Kuschan", VEB E.A. Seemann Verlag Leipzig, 1979

³⁵ Victor Keats, in "CHESS ITS ORIGIN", Vol. II, Oxford Academia Publishers, 1994, p.196ff.

³⁶ N. 1

enrich our research through the additional aspect of Kushan³⁷. A number of introductory texts on the topic of Kushan can be found at various sites on the Internet, some of which I have listed by way of example³⁸.

During my search of the Internet I also hit upon the web site of Robert Bracey³⁹. In response to my inquiry, he wrote that he knew of more pieces apart from those objects discovered in Dalversin-Tepe and amongst others named a Kushan piece from the 1st – 2nd century AD. On August 18, 2001 he informed me: *"I have enclosed a picture of the gold figure I mentioned. It was exhibited a few years ago and I have taken the figure from the catalogue. The figure has a lead core and is covered in gold (it is the deformation of the lead core which is responsible for its poor condition). It is probably intended to represent a charioteer and the dress is similar to that of Kushan royalty. However it is dissimilar to votary pieces and the flattened base indicates its use for games (though perhaps not chess)." I would like to show this object here to give you an initial impression of Kushan art, though I do not want to relate it directly to chess (cf. Fig. 9).*

And finally, I would like to finish with a quote from my friend **JoachimPetzold**⁴⁰, who unfortunately died much too early: "The prism of the game of chess reflects much of the history of mankind, and this is precisely what this book is about".



Fig. 9: Kuschan piece, 1. - 2. century AD⁴¹

³⁷ Many thanks to Mr. Siegfried Schönle for his kind assistance!

³⁸ The Kushans and Kanishkas: <http://www.itihaas.com/ancient/kushans.html>
 Kushua-un: <http://208.154.71.60/bcom/eb/article/5/0,5716,108785+1+106127,00.html>
 The Dynastic Arts of the Kushans Book : <http://www.vedamsbooks.com/no8452.htm>
 Kushan rule of Pakistan: http://www.geocities.com/pak_history/kushan.html
 The Kushan Empire: <http://www.indianvisit.com/ivnew/thecountry/history/kushan.htm>
 Kushan Dynasty: http://www.upportal.com/history/hist_kushan.shtml
 Kushan Empire: <http://school.discovery.com/homeworkhelp/worldbook/atozhistory/k/306035.html>
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 Archaeology Odyssey: <http://www.bib-arch.org/aoja01/imagining2.html>
 Kushan History, : <http://www.geocities.com/Athens/Atlantis/4128/essays/general/general1.htm>
 Afghans display ancient stone: http://news6.thdo.bbc.co.uk/hi/english/world/south_asia/newsid_883000/883209.stm
 COINS OF KUSHAN DYNASTY: <http://www.med.unc.edu/~nupam/kushan1.html>
 the Shunga, Kushan and Andhra dynasties: <http://www.artasia.org.uk/visart/shunga.htm>

³⁹ Email-Adress: gandhara.geo@yahoo.com

⁴⁰ Joachim Petzold, "Das königliche Spiel", Edition Leipzig, 1987, p. 8

⁴¹ Taken from: "The Ancient India and Iran Trust" in: The Crossroads of Asia: Transformation in Image and Symbol, Cambridge, 1992. p.165