Mancala in Roman Asia Minor? / Ulrich Schädler

rerels games, chess, backgammon and mancala are certainly the most widespread classical board games in the world. Our knowledge concerning L their origins, both chronologically and geographically, is however remarkably poor. While entire libraries could be filled with theories about the history of chess, the opposite is true of backgammon, its evolution having hardly ever excited any interest⁽¹⁾. The origins of merels are surrounded by the darkness of prehistory and attempts to lighten it up have rarely been made. The situation concerning mancala is not very much better, as shown by Philip Townshend's synopsis of the state of affairs: "The age of mankala is uncertain. It might be as much as 3,000 years or as little as 1,000"(2). "Some writers have ascribed to it an Egyptian, Persian, Indian or African origin"⁽³⁾. It must be stressed, however, that anthropology and ethnology have rarely tried to advance theories about the origin and evolution of mancala. Based on observation and literary descriptions not earlier than the 17th century of the rules adopted in different areas of Africa (except northern Africa), the Near-East, Asia and the New World, distributional analyses of variants and different typologies have been applied to gather information about migrations of peoples or cultural inter-relationships⁽⁴⁾. The history of the game in the long term was no primary concern. The Greaco-Roman world on the other hand was left to classical archaeology as the traditional field of research. Whether due to the afroethnological domination of mancala-related research or to the lack of a sufficient archaeological data-base concerning Greek and Roman board games, mancala has not been regarded as a game played in the Mediterranean during classical antiquity.

This article is a preliminary attempt to contribute to the history of mancala from a classical archaeologist's perspective. A number of methodological problems arise from such a viewpoint. To the archaeologist any board game appears as a tripartite set of data consisting of a gameboard, the material needed for playing and a set of rules. In contrast to the nearly complete knowledge of a game collected by anthropology and ethnology by observation of people playing or explaining the rules adopted, archaeology is more or less limited to the material remains of games. As far as the ancient Greek and Roman culture is concerned finds of complete sets of board games are extremely rare⁽⁵⁾. Generally spoken there are strayfinds of gaming stones, dice and other objects on the one hand and gameboards on the other. In some cases literary sources provide further information as for example names of games and their rules, but more often they are themselves problematic, since many of them consist of concise lexicographic entries, poetical or philosophical allusions to games rather than explanations or are written by late authors, who gained knowledge not from personal experience but from previous literary sources. As a substitute for complete games and the observation of people actually playing representations of board games in progress on wall-paintings or mosaics, in sculpture and other works of art can be helpful, but follow their own laws concerning style, scale and perspective, so that often details of the games depicted are not recognizable.

Left alone with the boards the search for cross-cultural analogies can be applied. The comparative study of board games, however, implies various difficulties. To state that

different games can be played on one and the same board (see for example Alfonso's "Libro de ajedrez" suggesting fifteen rules for games on the backgammon-board) is to repeat a banality. Hitherto less considered, however, was the likewise evident fact that on different gameboards similar games can be played. One should keep in mind that in the first place a gameboard is a particular disposition of places for the counters. These places may be shaped as points, holes, circles, squares, intersecting lines, letters or symbols of all kinds. For the identification of the games played on a given board the particular shape of the places is less important than their disposition. On Roman XII scriptalalea boards for example the places exhibit a variety of forms but differ completely from the oblong triangles of backgammon-boards, and yet the games are very similar. Dara, an African game where the players try to aline three of their own pieces in order to acquire the right to take one of the opponent's and therefore similar to nine men's morris, is played on a grid of holes instead of concentric squares⁽⁶⁾. In Egypt grids of holes are used for *siga*, a game very different to dara. Siga has certain affinities with the Roman game of latrunculi, which was played on a grid of squares⁽⁷⁾. Therefore *latrunculi* has often been compared to chess, although it was a completely different game. What follows is that it is important to be aware of the difference between the structural layout of a gameboard and its formal design. As far as mancala is concerned this distinction has hitherto not been observed. While boards with parallel rows of holes have readily been identified as mancala boards, parallel rows of squares have not been taken into account. From an archaeological and historical point of view, however, the fact that mancala seems to be played exclusively on rows of holes during the last centuries is no proof for the assumption that mancala boards must have had this particular shape from the invention of the game on always and in all cultures. On the contrary it seems more likely to suggest, that this type of board may be the result of improvements in design or that cultures importing the game may have played it on gameboards already existing. That these considerations could of course have consequences for the study of origin, history and distribution of the game is perfectly clear.

The difference of structure and form of gameboards and the difference of a game itself and its material remains handed down to us are the subjects treated in this article. It is dedicated to a class of gameboards consisting primarily of two parallel rows of five cells. These gameboards are to be found in Roman cities such as those of Asia minor, where they are frequently found incised in the marble slabs of streets, squares and other public buildings. Their identification as gameboards is suggested by the proximity of many of them to other pavement markings definitely identifiable as boards for merels games or *alea*⁽⁸⁾. I have collected examples at Aphrodisias, Ephesus, Miletus, Cnidus and ancient Izmir, a similar one at Didyma, but I have not seen boards of this class at Pergamon, Teos, Claros, Magnesia, Priene, Olympos, Phaselis, Termessos, Perge, Aspendos or Side. It must be stressed, however, that the list given below is certainly incomplete, various excavated buildings being re-covered with sand or plants or not accessible to the public, as for example the theatres at Side and Perge. As for Aphrodisias I am obliged to Charlotte Roueché for allowing me to make use of her hitherto unpublished catalogue of the pavement markings in the Sebasteion, the temenos of the temple of Aphrodite, the Tetrastoon and the southern agora⁽⁹⁾.

Gameboards with Two Rows of Five Cells in Asia Minor

Six different types of the gameboard in question can be distinguished (fig.1). These types can be described as a combination of essentially two elements, that is a frame on one hand and the filling of the frame on the other. The most elaborate frame (A) is composed of an oblong rectangle divided into two rows of five cells by one central line running parallel to the long sides and four intersecting lines parallel to the short sides. A simpler form of frame (B) omits the short lines and therefore consists of only a rectangle divided into two oblong halves. The simplest frame consists of a rectangle only (C). Finally the frame can be completely absent (D). Whereas the cells of the A-group frames can have no filling at all (1) or can be filled with inscribed circles (2) or cup-like holes (3), these holes appear to represent the cells in groups B, C and D. The following list of boards dicussed in this paper contains fifty two examples⁽¹⁰⁾.

Type A1 (BMT R1):

- 1 Ephesus, Hydrekdocheion of Laekanius Bassus,
- 2 Ephesus, Basilike Stoa, stylobate of the eastern inner colonnade opposite the so-called Rhodian peristyle,
- 3 Ephesus, Arkadiané, eastern colonnade between the 23rd and 24th columns north of the four-columned monument, 16x33,5cm (fig.2),
- 4 Ephesus, Arkadiané, in the middle of the street close to a circular and a square merels game, 20x35cm,
- 5 Aphrodisias, theatre, 1st sector [counting the segments of the auditorium from south (1st) to north (11th)], 3rd step from below,
- 6 Aphrodisias, theatre, 8th sector, 12th step from above, near square merels game and incised gladiator's bust,
- 7 Aphrodisias, theatre, northern sector (11th), 3rd step from below,
- 8 Aphrodisias, theatre, northern sector (11th), 6th step from above,
- 9 Izmir, agora, inscribed cup-like depressions in four squares, leaf near the board pointing to the middle square, numerical sign m at one corner, 22x36cm (fig.3),
- 10 Cnidus, propylon to the precinct of Apollo, 9,5x25cm, holes in the first square of both rows.

Type A2:

11 Ephesus, Arkadiané, on a threshold in the eastern colonnade. Since in the frames of the A-group the ten cells are sufficiently defined by the squares, the inscribed circles should be interpreted as simplified holes.

Type A3 (BMT R6):

- 12-15 Aphrodisias, theatre, northern sector (11th), 3rd (fig.4), 5th, 6th and 8th steps from below,
- 16-17 Aphrodisias, stadium, 5th sector of north-side (counting from east to west), 4th step from above c. 4m apart,
- 18-20 Aphrodisias, Tetrastoon, stylobate of the west colonnade, between 2nd and 3rd column (counting from north), 15x25cm, between 4th and 5th column, 24x39cm,



Fig 1: Types of 2x5-class game boards in Asia Minor



Fig 2: Game board at Ephesus, Arkadiané

and between 5th and 6th column, 18x40cm. **Type B3:**

- 21 Aphrodisias, theatre, 9th sector, 5th step from below, **Type C3:**
- 22 Aphrodisias, theatre, 8th sector, 7th step from below (only one row existing). **Type D3 (BMT H4):**
- 23-25 Aphrodisias, theatre baths, western colonnade, beneath column at northern entrance,
- 26 Aphrodisias, theatre, 9th sector, 5th step from above, close to the stairs between sectors 8 and 9,
- 27 Aphrodisias, theatre, northern sector (11th), 8th step from above,
- 28-29 Aphrodisias, Sebasteion, on the steps at the east end, 9x23cm and 11x24cm,
- 30 Aphrodisias, temple-temenos, on the steps at the east end of the south colonnade, 13x28cm,
- 31-51 Aphrodisias, southern Agora, northern portico:
- 31-32 between 27th and 28th column (columns numbered from east to west) 7x15,5cm and 8x24cm,
- 33 next to 30th column, 17x37cm,
- 34-35 between 31st and 32nd column, 10x29cm and 15x25cm,
- 36 next to 33rd column, 7,1x22cm,
- 37 between 34th and 35th column, 14x29cm,
- 38 between 36th and 37th column, 10x28cm, next to a xii scripta/alea-board,
- 39 next to 37th column, 10x33cm and 12x26cm,
- 40 between 39th and 40th column, 10x19cm,
- 41-42 next to 40th column, unfinished 9x15cm, and traces of an earlier,
- 43-44 next to 42nd column, 8x21cm and 6x19cm,
- 45 next to 45th column, 8,5x16cm, close to a xii scripta/alea-board,
- 46 next to 46th column, 9x22cm,
- 47 next to 47th column, 7x20cm,
- 48 next to 48th column, 9x23cm,
- 49 next to 49th column, 11x24cm,
- 50 next to 50th column, 8x23cm,
- 51 next to 55th column, 9x20cm
- 52 Miletus, theatre, southernmost sector, 4th step from below, 10x22,5cm.

Thus a survey of the boards of the 2x5-class in the Roman cities of Asia minor shows that out of fifty two examples ten boards have two rows of five squares, while fourty one boards – fourty four with the one of type A2 from Ephesus – have two rows of five holes.

Mancala or Five Lines?

Two main questions arise: Were all six types of the 2x5-class boards used for one and the same game or were different games played on these boards? And what kind(s) of game(s)? At first sight it might be suggested that at least some of the boards were used



Fig 3: Game board at Izmir, Roman agora



Fig 4: Game board at Aphrodisias, theatre

for some kind of mancala, judging from the striking formal analogy and in particular from the fact that four, if not five of the six types have holes as cells as is typical for mancala boards. To support this hypothesis one could add two further arguments. From a functional point of view cup-shaped troughs are very suitable to grasp a certain number of pieces at a time with one hand as in mancala, but less suitable to move single pieces from one place to another. From a practical point of view it would be quite astonishing, that anyone should take pains over chiselling holes into marble, if he did not believe them to be appropriate or in fact necessary for the game. But the case is not as easy as it seems to be. It must be observed that some of the holes of the boards described are reduced to points rather than holes and that all two-row boards with holes consist of exactly five cells in each row, a peculiarity they share on a structural level with boards of a Greek game conventionally named as *five lines*. The existing literary and archaeological evidence enables us to create a fairly good picture of that game⁽¹¹⁾.

Referring to *five lines* Pollux states (IX 97) that "each of the players had five pieces on five lines" adding that "on either side there was a middle line called the sacred line. And moving a piece from it gave rise to the proverb 'He moves the piece from the sacred line". In another instance (VII 206) Pollux includes *five lines* in a list of dice games. Eusthatius in his commentary to Homer's Odyssey (Od. 1397,28), probably relying on Suetonius' lost book about Greek games, says that both players had their own five lines and that the line between these was the sacred line. Its significance he explains by adding that "the beaten player goes to it last", *i.e.* the player who first manages to place his pieces on the sacred line is the winner. The earliest reference is a verse by Alcaeus⁽¹²⁾, implying that moving a piece from the sacred line can lead to final victory – in a sense similar to "playing the trump card" nowadays.

Archaeological finds that can convincingly be connected with these references, totally ignored by Austin⁽¹³⁾, add much to their understanding. W. Kendrick Pritchett catalogued the material hitherto known from mainland Greece, Delos and Cyprus⁽¹⁴⁾. I do not want to leave the fact unmentioned, that the numerals on some of these boards induced some scholars to speak of abaci. Although it cannot entirely be ruled out that the boards may at times have served for calculations, I follow the opinion that they were primarily designed as gaming boards⁽¹⁵⁾. The earliest example is a painted terracotta gaming table found together with a cubic die in a grave at Vari in Attika, dating to the middle of the 7th century BC⁽¹⁶⁾. The board measures 18,3x24,8cm and has on its surface five incised parallel lines ending in a circular cavity on both sides, thus forming two rows of five holes along the longer edges of the board. Two distinct groups of five parallel lines widening at both ends are incised on the surfaces of two stone gaming tables dedicated possibly during the fourth century BC in the sanctuary of Asclepius at Epidauros⁽¹⁷⁾. On one of these tables six shallow lines have been added clearly at a later date in order to create a gaming area with eleven lines next to one with five. Boards with eleven lines have been found at several places, often with the third, sixth and ninth line marked by a special sign, pointing to a special significance of these lines. Thus the boards with eleven lines appear to be boards where two groups of five lines with their sacred lines in the middle have been joined by adding a line between the two groups. This

5+1+5-layout corresponds to Pollux' (IX 98) and Eusthatius' (II. 633,58) peculiar expression Lamer⁽¹⁸⁾ came across, that "a line in the middle was called the sacred line" instead of "the line in the middle". From the extant gaming boards this expression seems to correspond to both possibilities, *i.e.* the sacred line as the middle line of five on the one hand and of eleven on the other hand.

As far as the modes of playing on these boards are concerned, those points, grooves or holes at the ends of the lines in some of the boards seem to demonstrate that the gaming pieces were placed at the ends of the lines. This arrangement is represented on a terracotta model of a gaming table from Athens, dating about 600 BC, the lifetime of Alcaeus⁽¹⁹⁾. On its surface measuring 37x12cm are engraved nine parallel lines occupied by oval knobs at each end, probably representing the gaming stones. Although the number of nine instead of eleven lines differs from the stone boards, there can be little doubt that essentially the same game is meant, the reduced number of lines probably due to the miniature scale and the overall inaccurate design of the model. At both ends of the board two dice with their upper face showing 6 are preserved and perhaps traces of a third die in the center. It has been argued that a winning move is represented with all eighteen points occupied by one player's counters after the highest possible throw of three dice⁽²⁰⁾.

There are several reasons for not accepting this hypothesis. Apart from the fact that the important role of the "sacred line" is not taken into consideration, having seen the board in Copenhagen I wonder if there really are traces of a third die. Moreover the corresponding numbers of eighteen points on nine lines and on three cubic dice are merely coincidental, since the normal number of lines is five or eleven with ten or twenty two points respectively. Finally the underlying hypothetical rule that the players had to place a number of pieces on the points according to the result of the throw of dice, simply does not correspond to the fact that the pieces were moved from one line to the other. That this was the case is not only clearly indicated by the proverb "moving the piece from the sacred line" to which the literary sources refer. This way of playing is also represented on an Etruscan mirror depicting Achilleus and a companion (probably Aiax) playing on a board with seven parallel lines kept on their knees⁽²¹⁾. The circles at the ends of the lines are generally held to be gaming stones⁽²²⁾. Again the reduced number of lines can be explained by the general tendency of small scale reproductions to a certain inaccuracy as to the details. Therefore a Praenestine mirror in the British Museum⁽²³⁾, dating to the 3rd century BC⁽²⁴⁾, should also be added to the representations of the game. Although the gaming table used by the couple shows twelve or thirteen lines, the overall design of the board differs considerably from boards for XII scripta to which the mirror has hitherto been attributed⁽²⁵⁾. Moreover the name of XII scripta, a game similar to alea with close affinities to backgammon⁽²⁶⁾, does probably not refer to twelve lines on the board, but to the use of two dice with twelve spots as the highest result, as already stated by Nonius (170,22)⁽²⁷⁾ and confirmed by a board with two dice on it depicted on a mosaic from Ostia (CIL XIV 607)(28).

We may therefore conclude that *five lines* was played on a board with normally two rows of five or eleven points, the opposite points connected by a line and often in the

shape of small troughs. Two players played either on five or eleven lines or on separate groups of five lines. The use of dice in *five lines* is attested by both the literary and archaeological sources. Judging from the find from Vari, one die was used when playing on five lines, whereas two dice belonged to the larger boards. Not only are two dice placed on the board from Athens in Copenhagen, but also on the Etruscan mirror two rectangular objects are depicted between the lines that can be taken as dice. The number of gaming stones obviously corresponded to the number of lines, each player having as many counters as lines on the board. Five stones for five lines are mentioned in the literary sources, while on the clay gaming table in Copenhagen and on Achilleus' board all points are occupied by one counter. The pieces moved from line to line according to the spots on the dice. If the interpretation of the sources is correct, that the aim of the game was to place all or as many pieces as possible on the "sacred line(s)", then probably the pieces had to move around the board several times, for just one turn was surely not sufficient. Presumably a counter having reached the last line on one side of the board was shifted along the line to its other end, where it moved in the opposite direction along the other side back to the first line, where the same manoeuvre was repeated and so forth. It is this presumed circular movement around a board with two rows of points in the shape of holes that reminds one of mancala games, hence the somewhat detailed analysis of the evidence concerning five lines.

There are also other aspects pointing to a possible use for five lines of the two-row boards in Asia minor. One is the fact that by far the largest number of two-row boards have exactly 2x5 cells. As exceptions I noticed one board with 2x4 squares on the upper step of the western curve in the stadium and one of 2x6 squares next to the 50th column of the northern portico of the agora at Aphrodisias (15x32cm) as well as another next to the north-eastern anta of the temple of Apollo at Didyma (8,5x30cm). On the other hand several boards with precisely 2x11 squares exist, one on the stylobate of the temple of Apollo at Didyma, three boards at Ephesus in the so-called Curetes Street opposite the monument for Androclus⁽²⁹⁾, four boards dating to the Byzantine period have been found at Salamis (Cyprus)⁽³⁰⁾ and one board has been reported from Petra (Jordan)⁽³¹⁾. This striking correspondence between the number of cells of these boards and the number of points in *five lines* boards can hardly be explained as mere coincidence. The second reason is that neither Pritchett's catalogue of lined boards contains a single example from Asia minor, nor did I ever find one in the ruins of the cities mentioned above. There may be geographical and chronological explanations for this last observation, as the boards with lines from mainland Greece, Delos and Cyprus as well as their reproductions on the bronze mirrors all predate the Roman imperial era, whereas none of the boards with cells in Asia minor and Cyprus is earlier than the 2nd century AD. Since a board of type A1 is also known from the Roman theatre at Leptis Magna in Libya⁽³²⁾, the boards of the 2x5-class seem to represent a later type of *five lines* board, although we must keep in mind that the data-base at present is relatively sparse.

Perhaps the most important testimony in favour of *five lines* being played on the two-row boards discussed in the present article is a board (fig.3) engraved in the pavement of the State Agora at Izmir, erected in the 2nd century AD⁽³³⁾. As already

mentioned the board preserves the normal design of the A1 type with two rows of five squares. Next to one corner of the board a sign can be seen, possibly a cursive µ standing for 1000, while a circle with four spokes near the diagonally opposite corner seems not to have anything to do with the board. Most interesting is a leaf engraved close to the board with its base touching the middle square, thus indicating its importance. Similar leaves appear frequently in connection with late antique representations of games, races and athletic contests, but also on gravestones, obviously as a symbol for good luck or victory. As an illuminating example the gladiators holding a leaf in their raised right hand engraved in the pavement of a public street in Rome together with different types of gaming boards may be cited⁽³⁴⁾. It seems therefore not too far-fetched to suppose that the leaf indicates the "sacred squares" in the middle of both the two rows of squares, where the counters had to be placed to win the game. One of the Salaminian boards cited above points to the same direction: It consists of two parallel groups of eleven cells, the middle cell being larger and marked by an x35.

Mancala in Roman Times?

However, at some time somebody started to grind depressions into the board on the Roman Agora at Izmir. Compared to the three holes in the squares of the opposite row, the hole in the square next to the μ is relatively shallow. It seems therefore as if the original intention was to supply all the cells with holes, but work has been interrupted. Since *five lines*, like all other Greek or Roman board games hitherto known, was played moving single counters from one place to another, there was surely no need whatsoever for holes like this on a *five lines* board. Although many *five lines* boards of the group with lines have grooves or holes at the ends of the lines, these grooves or holes are relatively small and could have served only to hold single counters, judging from the representations of the game described above as well as from the average dimensions of ancient gaming pieces. The same is true for the small examples of 2x5-boards of types A3, B3, C3 and D3. On the other hand many of these boards including the board at Izmir have holes large enough to contain more counters, pebbles, seeds or whatever might have been used as gaming stones. As already stated above, such depressions make a game like mancala more comfortable to play.

Can we assume then that a board for *five lines* or another game was intended to be transformed into a mancala-board? And may all the boards with large cup-like holes (types A3, B3, C3 and D3) have served that purpose? Two arguments may support this suggestion. Not only the formal similarity in design, which would probably induce most Africans to play mancala on such boards, may be mentioned. Those boards at Didyma and Aphrodisias with 2x6 and 2x4 squares mentioned above should not be forgotten. With their equal number of cells these boards cannot have served for *five lines*, which required an odd number of lines or cells.

It seems therefore, judging from the evidence presently available, that the two-row boards presented here, have been used for both a variant of *five lines* played on squares instead of lines and a mancala-like game as well, not necessarily played on rows of holes but also on rows of squares. Concluding from the history of the cities in Asia minor, where buildings and streets were still repaired in the 6th century, before the Arabian invasions during the 7th and 8th centuries accelerated their decline, the gameboards engraved in the pavements should be dated not earlier than the 2nd and hardly later than the 8th century AD. Thus they are not later in date than the earliest examples from Africa that have been taken as mancala boards. The boards excavated at Matara and Yeha in north-western Ethiopia have been dated between the 6th and 8th centuries AD⁽³⁶⁾.

We have come to touch the question of the origins of mancala. On this subject modern authors use to refer to Egypt, relying faithfully on Parker's observations from the beginning of the century quoted at length by Murray⁽³⁷⁾. Boards with two rows of holes have been met with at the pyramid of Menkura (middle of the 3rd millennium BC), at the temples of Kurna and Luxor (middle of the 2nd millennium BC) and at the entrance to the Ptolemaic temple at Karnak⁽³⁸⁾. It has been taken for granted that the boards date from the time of the erection of the buildings, an assumption not at all confirmed by modern egyptology⁽³⁹⁾. On the other hand a board with 3x14 small holes, associated by Flinders Petrie with senet, has not unreservedly been claimed for mancala⁽⁴⁰⁾. Moreover, if two-row mancala was really known in Ptolemaic Egypt, we should expect it to spread to other parts of the Hellenistic world more rapidly than in a period of several hundred years. And if it was not, the time gap of two thousand years between the boards at Kurna and the earliest examples a little further south in Ethiopia remains without satisfactory explanation. What is needed is a thorough re-examination of these boards regarding their chronology, a task that is beyond the scope of the present article. On the other hand the neolithic board found in Jordan at 'Ain Ghazal (6th mill. BC) with its diverging rows of holes⁽⁴¹⁾ as well as the boards from Beidha (7th mill. BC) with grooves running through the depressions and off the slab at one end are unlikely to be gameboards⁽⁴²⁾.

Leaving aside the doubtful old-Egyptian and neolithic evidence, both the archaeological finds from Asia minor and Ethiopia as well as the silence of the literary sources until the first mentioning of mancala in Arabian literature in the 10th century AD correspond surprisingly well in pointing to a possible birth of two-row mancala between the 6th and 8th centuries AD, or even a little earlier. Judging from the attested age of *five lines* and its not having survived classical antiquity, two-row mancala seems to have replaced the older game. The question therefore arises, whether in fact the context of the late antique and early Byzantine cultures, in particular some special attitude of early Christian (or even early Muslim) society towards games might have supported the dismissal of five lines and the distribution (if not the birth) of mancala in the eastern mediterranean? In the new light of the evidence and considerations presented here I would finally like to compare two well attested characteristics of both games. One peculiarity of mancala is the way of moving by spreading the pieces. In contrast to a dicegame like *five lines*, in mancala the reach of a player's turn is determined by the number of seeds in a given hole, the spreading of pieces being the easiest way to find out where the turn ends even without counting. The choice of the hole to be emptied enables the player to change deliberately the values, *i.e.* the possible reach of a turn starting from that point, of the following holes. Thus the function of the die as the oldest principle of movement in board games has been integrated into the counters.

Peculiar to *five lines* was the function of the "sacred line" as the predetermined goal where the pieces had to move to. Thus, in the course of the game the sacred line or squares accumulated the counters. From Ethiopia, eastern Anatolia and elsewhere variants of mancala have been reported where holes serve a similar function. The important difference lying in the fact that these holes have to be captured first⁽⁴³⁾. They are not predetermined goals that could be called "sacred" as in *five lines*. Could both this difference as well as the particular way of moving in mancala by spreading pieces instead of rolling dice perhaps trace back to the demands of early Christian society, where a line or square in a game called "sacred" must have been taken as blasphemy and games of hazard were generally ill-reputed?

However this may be, the possibility that mancala was known to the Graeco-Roman world in late antiquity changes considerably the perspective towards the origin and history of the game. This would provide a context for the otherwise isolated evidence for the game being played in Greece, attested by Galt's observation of people playing Mancala on the island of Hydra in 1810⁽⁴⁴⁾ and a rock-cut mancala-board in Athens reported by Townshend but without details as to its location, date or source⁽⁴⁵⁾. Moreover, if the late antique boards in Asia minor predate the Arabian invasions, the existence of mancala in Syria, the Levant and Anatolia might date back to Late-Roman times instead of being due to Islamic influence.

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Notes

- 1. See Schädler 1995.
- 2. Townshend 1979: 794.
- 3. Townshend 1977: 51.
- 4. See a.e. Pankhurst 1971 and 1982, Townshend 1979b; critical Eagle 1995: 51-52.
- 5. I know of only two exceptions. One is a complete set of *XII scriptalalea* found in a grave Qustul, Nubia (Schädler 1995: 80). Recently in a British grave at Stanway, Colchester, the remains of a wooden board of presumably 12x8 squares with thirteen white counters, one of which was smaller in size, and thirteen black counters, one of which was used upside down, still in place have been found (Crummy 1997a: 68-70, Crummy 1997b: 1-9). The game played on the

board is probably not the Roman *Latrunculi* game, mostly because of the following reasons (compare Schädler 1994): 1) in the written sources about *Latrunculi* no extra piece is mentioned; 2) the ratio of *Latrunculi* boards is more or less square, the boards having normally nearly the same number of squares horizontally and vertically; 3) 12 pieces for each player seems too small a number in a game where an enemy piece must be captured by enclosing it from two sides; 4) in *Latrunculi* probably there was no initial position, if the position of the pieces on the Stanway board indeed reflects the beginning of the game.

- 6. See Murray 1952: 48-50; Townshend 1980: 218.
- 7. For siga see Petrie 1927: 56-57, Murray 1952: 54-55, 82; for latrunculi see Schädler 1994.
- See Schädler 1995.
- 9. Roueché in press.
- 10. In the list below the type denotations of the British Museum Typology of gameboards (BMT), developped by Charlotte Roueché and Robert C. Bell, are given in brackets. As the BMT does not distinguish my types B3 and C3 from type D3, boards of these types may be included in the boards nos. 28-51. For the BMT see Roueché/Bell 1993: 249-251.
- 11. Completely misleading Becq 1869: 397-405 and Murray 1952: 28; disappointing May 1991: 172-173.
- 12. Bergk 1884: 177 no.82, Voigt 1971: 320 no.351.
- 13. Austin 1940: 267-271.
- 14. Pritchett 1968: 189-198.
- 15. For the discussion see Pritchett 1968: 200-201.
- 16. Kallipolitis 1963: 123-124 pl. 53-55.
- 17. Blinkenberg 1898: 2-5 fig.1-8; Pritchett 1968: 189-191 nos.1-3.
- 18. Lamer 1927: 1971.
- 19. Lund/Rasmussen 1995: 67; Pritchett 1968: 197 pl.7,1; Breitenstein 1941: 19 no.171 pl.19.
- 20. Blinkenberg 1898: 9.
- 21. 3rd century BC: Mansuelli 1945: 58.
- 22. Körte 1897: 144-146 pl.109.
- 23. Körte 1897: 191-193 pl.146; Walters 1899: 377 no.3213.
- 24. Compare the mirrors Mansuelli 1943: 517-518 pl.40 no.13 (2nd half of the 3rd cent. BC), Liepmann 1988: 43-45 no.17 (early 3rd cent. BC), and de Puma 1987: 38-39 no.21 (early 3rd cent. BC).
- 25. Walters 1899: 377; Bell 1979: 30 fig.25; May 1991: 179 fig.174, who wrongly dates it to Roman times.
- 26. Schädler 1995.
- 27. See Schädler 1995: 84.
- 28. Wrongly identified as a ground-plan (!) by Heisel 1993: 193.
- 29. See Lamer 1927: 1999.
- 30. Chavane 1975: 195 pl.53 and 72 no.575, 197 pl.53 no.576, pl.54 and 73 no.577, 204 fig.12 and pl.54 no.578. Chavane fell into the same trap described above identifying the boards as "jeux des douze lignes", *i.e. XII scripta/alea* boards. But the boards are clearly 2x11-squares boards.
- 31. Murray 1940: 35 fig.10, incised in the rock together with two boards of 2x10 squares.
- 32. Caputo 1987: 121 pl.94,3.
- 33. Akurgal 1993: 122-123.
- 34. Gatti 1904: 153-155 fig.2 and 4; for the other gaming boards see Schädler 1995: 89 fig.11a,

94s. fig.12a. For gaming boards with leaves see Schädler 1995: 87 fig.6a and 6h, 88 fig.7.

- 35. Chavane 1975: 197 pl.54 and 204 fig.12 no.578.
- 36. Pankhurst 1971: 154; Walker 1990: 37.
- 37. Parker 1909: 579-644; Murray 1952: 160-161.
- 38. See Walker 1990: 34-35.
- 39. I quote from a letter dating 14th of July 1996 by Edgar B. Pusch, Hildesheim, to the present writer: "Das Mankala-Spiel ist mir trotz Murray aus Alt-Ägypten nicht bekannt. Zwar gibt es Ritzungen auf Tempeldächern und in Höfen, welche an eine entsprechende Aufteilung erinnern, jedoch ist die Zeitstellung völlig offen und vermutlich sehr spät (Islam)." On the roof of the temple at Kurna there are also *siga* or *dara* boards, certainly of rather late date.
- 40. Petrie 1927: 55 no.175 pl.74; Walker 1990: 35. The unique small scale clay models of gaming tables from Perachora in Greece showing three rows of at least six cup-shaped depressions and dating to the 7th and 6th centuries BC (Dunbabin 1962: 131-132 pl.39 and 132 nos. 1325-1328) have never been regarded as mancala-boards and are likely to be associated with contemporary *senet* boards showing three rows of circles (see a.e. Petrie 1927: 53-55 pl.48 no.3, no.4 = Pusch 1979: 374 pl.94 no.80, 376 pl.95 no.81; Kendall 1991: 151 fig.145 wrongly identified as "game of twenty squares"), certainly not with *XII scripta/alea* as Dunbabin 1962: 132 took it.
- 41. Rollefson 1992: 1-4 fig.1.
- 42. Kirkbride 1966: 34 fig.8.
- 43. Pankhurst 1982: 35; Townshend 1979b: 119-122.
- 44. Galt 1813: 242; Murray 1952: 158.
- 45. Townshend 1977: 47.