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In contrast to the extensive literature describing the role of ancient Persia in the transmission of the games of chess and backgammon, our knowledge of other board games remains scanty. The study of ancient games relies on archeological material which is supplemented by data from epigraphic and iconographic sources, and direct evidence is lacking in most cases. This is due to the perishable nature of the material, such as textile, leather, and wood, which was used in making the artifacts, as well as because of the fact that often the games were simply drawn on the ground. Ethnography can help reconstruct some games, since many of them are still played nowadays (Watson, pp. 199-202). Despite their popularity, the names and the rules of ancient games remain unknown. Today's expressions derive most often from a description of the board, as it is the case with "the game of 20 squares" or "the game of 58 holes," both of which will be discussed further on.

Another major problem for the study of ancient games is the identification of the material as gaming material. Board games consist of a surface usually structured by a geometrical pattern (rows of holes or squares, grids of lines, etc.), on which counters are placed and/or moved, sometimes according to the result given by a random generator (dice, sticks, cowry shells, etc.). In practice, the same holds true for the abaci (mathematically structured boards on which

counters are placed and moved to perform calculations), as well as for certain objects used in divination practices (see DIVINATION). This makes it often difficult, if not impossible, to determine whether a board has been used as a game board or as a board for calculation (see, for example, the clay tablet measuring 6.2 x 8.4 cm with 3 x 8 holes in Edwards, 1983, p. 298, fig. 147.1 and pl. 16e) or divination. These functions are not mutually exclusive: Greek boards for the game of "five lines" seem to have been used for calculation as well, as was the case with the chess board (Murray, p. 338; Pritchett, pp. 187-215). Toys, sometimes evoked in games studies, also raise questions of identification, but they are not dealt with here.

The game of 20 squares. The so-called "game of 20 squares" was certainly one of the most popular games in ancient Egypt, Mesopotamia, and Persia. Its conventional descriptive name is very close to the original Egyptian name "the game of twenty" (Pusch, 1977, pp. 209-11; Idem, 2007, pp. 69-86, with modifications).

The earliest example of a board for this game found in Persia comes from the site of Šahr-e Suḵta (also spelled in literature as Shahr-i Sokhta or Shahr-e Sukhteh) in southern Sistān (Piperno and Salvatori, 1983, pp. 179-89, figs. 5-7, pl. VI; FIGURE 1). The form of the wooden board and the order of the individual spaces or fields follow the earlier examples from the royal cemetery at Ur (Woolley, 1934, pp. 274-79, pls. 95-98). The central row of eight fields is accompanied on either side by four fields on one end of the board, making a rectangle of 4 x 3 fields, and by two fields on the other end of the board, making a rectangle of 2 x 3 fields (see FIGURE 1 and FIGURE 2). On the board found at Šahr-e Suḵta the fields are fashioned by the coils of a snake, carved in relief (FIGURE 1). In December 2004, the finding of another board of similar design together with two cubic dice was reported on the Internet ("World's Oldest Backgammon Discovered in Burnt City").

The only type of the board known to have existed in Egypt differs from the ones found at Ur and Šahr-e Suḵta in the arrangement of the fields: its longer central row has twelve fields and is accompanied by two shorter rows of four fields at each side, but on one end only. Thus, the thicker part of the board forms a "head" of 3 x 4 fields, while the continuation of the longer central row makes a "tail" of eight fields (FIGURE 3). Many boards have the forth, the eighth, and the last field of the central aisle marked by a cross or another symbol. The hitherto earliest board of this type seems to be a stone board from Jiroft in Kermān province in southeastern Iran (Majidzāda, 2003, pp. 120, 197;

Dunn-Vaturi and Schädler, 2006, pp. 2-3, fig. 1). It has 21 fields, which are arranged as a curling snake, similar to the older boards from Šahr-e Sukta; the 21st field is at the end of the snake's tail. Three other fragmentary boards of this type have been unearthed at Susa and are preserved in the Louvre Museum in Paris. The fragment from Ville Royale at Susa has been misinterpreted when drawn for the final report (Mecquenem, 1943, fig. 39.1; Allinger-Csollich, 2003, p. 41, board III.1, erroneous drawing after Mecquenem). The end of a "tail" with a cross is visible on the reverse side of a 58-hole game from the "Dépôt du Temple d'Inshushinak"—a votive deposit buried near the sanctuary of the god Inshushinak, the city god of Susa—which dates to about 1300-1200 BCE (Mecquenem, 1905, fig. 350). In Egypt, games of 20 squares can often be found on the reverse side of boxes for playing *senet* (the game of 30 squares). Another fragment from Susa without archeological context preserves only the last six fields of the central row with two marked fields.

Strongly related to the "head-and-tail" type are the stone gaming boards in the shape of animals found at Jiroft. They come as birds of prey (Majidzāda, 2003, pp. 130-32, 200-1; Dunn-Vaturi and Schädler, 2006, pp. 4-6, pl. 1, 3a), scorpions (Majidzāda, 2003, pp. 136 and 201; Dunn-Vaturi and Schädler, 2006, pp. 5-6, pl. 2a), and as a scorpion-man (Majidzāda, 2003, pp. 135 and 201; Dunn-Vaturi and Schädler, 2006, p. 6, pl. 3b). The complete scorpion-board from Jiroft confirms the earlier identification of a fragment from the site of Tepe Yahya (Yaḥyā) in Kermān province in southeastern Iran as belonging to a similar board (Potts *et al.*, p. 55, pl. 19B, fig. 22C; Lamberg-Karlowsky, 1988, fig. 2F, pl. XX.C; Dunn-Vaturi and Schädler, 2006, pp. 5-6, pl. 2b). These boards have two rows of four fields (located within the wings of the bird, the pincers of the scorpion, and the arms of the scorpion-man) and a central row of fields running through the body and tail. While most of these boards have the usual number of twenty fields, some boards have a central track of only eight fields (double-headed bird and scorpion-man), thus reducing the track for each player's movements to twelve fields. It is obvious that the astrological connotations of the number twelve have an important role in the game. The reduced size and the fact that the boards appear to have never been used for playing suggest that the gaming boards from Jiroft had been intentionally produced as grave goods. This assumption is corroborated by the choice of animals used for the gaming boards. In the iconography of the items from Jiroft, the birds of prey, the scorpions, and the snakes frequently appear in association with each other, but they remain decidedly distinct from such

irenic motifs as bulls, antelopes, and water streams. Apart from the fact that these threatening and agile creatures correspond to the competitiveness required in a race game, it seems that an apotropaic and chthonic aspect characterizes these animals, which also transcend the human sphere, serving as a link between the earth and the underworld (snake, scorpion) or the heavens (bird) respectively.

As far as the rules of the game of 20 squares are concerned, the counters and random generators (stick dice and pyramidal dice), associated with the game boards at Ur, indicate that the game was designed as a race between two players. It is generally assumed that the four squares on each side of the board served as entry fields, where the two players had to enter their counters. This assumption is now strongly corroborated by the zoomorphic boards from Jiroft. Consequently, the counters of each player met only in the central aisle. The aim of the game seems to have been to move one's counters down that central line until the final field and then off the board. The marked squares seem to have functioned as lucky fields, be it that a piece was safe from being captured or that landing on it gave the player another throw. From the fact that the marked squares, which can be found on a number of boards, are placed exactly at a distance of four fields, it can be concluded that the track to run through on the boards of the Ur type was as indicated in the diagram (FIGURE 2; a different proposal is given in Finkel, 1995, p. 66, fig. 1). In fact, on the snake-board from Šahr-e Sukta one square is particularly emphasized, that is the square where the head and the tail of the snake meet, probably to indicate the final field of the track (see FIGURE 1, top left corner of the 2 x 3 block on the right).

A recently discovered late-Babylonian cuneiform tablet dating to 177-176 BCE contains a description of a race game with a plausible reference to the game of 20 squares (Finkel, 1995; Idem, 2007). The game is called "a pack of dogs" (Babyl. *illat kalbi*), which seems to preserve the original name of the game, whereas the counters (five on each side) bear the names of birds. They are moved according to the throw of two knucklebones, and special results are needed to enter each of the birds-counters into the game. Thus the counters are of five different values, and it seems that such a distinction, which later was to characterize the game of chess, has been introduced here for the first time (Schädler, 1999). The obverse of the tablet is inscribed with a zodiacal divinatory diagram, and one would be tempted to interpret the five birds of the game and its central row of twelve squares in an astrological context.

The backgammon/nard family. Among the game boards found at Jiroft, another type of game board, hitherto unknown, has come to light. By depicting four curling snakes comparable to the 20-square boards from Šahr-e Suḵta, it shows three parallel rows of twelve (two groups of six) circular fields. The arrangement of the fields is similar to that of the backgammon board, with the exception that while the backgammon board has two rows of twelve fields at its two sides, the board from Jiroft has three such rows; the rows are interrupted in the middle to form two blocks of six fields on each side. Such an interruption is a very peculiar and important feature common to and characteristic of backgammon-type boards: it is not just twelve fields on one side of the board, but two times six fields (Majidzāda, pp. 108 and 192; Finkel, 2004, p. 95, fig. 7.7; Dunn-Vaturi and Schädler, 2006, pp. 10-11, pl. 4a). A second board of the same type, but more precisely cut, is preserved at the Swiss Museum of Games (Musée Suisse du Jeu) in La Tour-de-Peilz. Thus the structure of the board with its three rows of twelve fields divided in the middle into groups of six is identical to the Roman boards of a much later date for a game of the backgammon type, which was called “the (game of) 12 points” (Lat. *ludus duodecim scriptorium, duodecim scripta*) in Republican and early Imperial times, and simply “dice” (Lat. *alea*) in later Roman times (Schädler, 1995). The game obviously existed until at least the 7th century CE, and it is attested not only by Isidore of Seville’s description (*Origines*, 18.60-64), but also by the depiction in a wall painting from Object VI, no. 13 at Panjikant near Samarqand dating to about 700 CE (identification proposed by Panaino, 1999, p. 204; see Belenitskiĭ, 1958, pp. 146-47, fig. 48; Belenitskiĭ and Piotrovskiĭ, 1959, pls. XIV-XV; Azarpay, 1981, pp. 181 [dating] and 194).

The fact that this type of board existed simultaneously with the game of 20 squares suggests that the backgammon type of board derives neither from that game nor from the much later Egyptian combination boards for “senet” and “20 squares” with their three rows of 12 squares. The backgammon family of games followed a trajectory of its own, with its apparent origins in ancient Persia around 2000 BCE.

A great variety of game boards. A gypsum slab with up to thirteen holes approximately 1 cm deep and 1 cm in diameter has been found at the Neolithic site Čoḡā Safid in Ḵuzestān (Hole, 1977, p. 215; pl. 48-h). If it is a game board, this is one of the earliest examples in the Near East, with other Levantine specimens known from the 7th millennium BCE (Rollefson, 1992). Game sets are rarely found complete, which raises issues of identification:

boards can be mistaken for a kind of abacus and vice-versa. The clay tablet with 3 x 8 dots on its surface, found at Haftavān Tepe in the Urmia basin in northwestern Iran (late Period VI B, 1900-1550 BCE), is interpreted either way (Burney, 1975, p. 159, pl. IVa; Swiny, 1986, p. 44).

Slabs with 3 x 7 squares have been discovered at Bābā Jān Tepe in northeastern Luristan (Goff, 1976, p. 21, pl. VIIIa)—the original number of squares could well have been 30—and Susa (Mecquenem, 1943, p. 45; Allinger-Csollich, 2003, p. 23, no. I.A.11 7); graffiti of 3 x 9 squares have been noticed at Persepolis (Curtis and Finkel, 1999).

Objects with variants of 20-, 30-, and 36-square diagrams are also attested at Susa for different periods. Two of them are reported from the end of the Elamite period, 8th-7th century BCE (Mecquenem, 1943, pp. 44-45, fig. 39, nos. 2-3; Allinger-Csollich, 2003, pp. 20-21, nos. I.A.1 and I.A.3). They have the shape of a brick with 3 x 12 perforated fields made as quadrangles (FIGURE 4). The quadrangles of row 4 and row 9 are filled with dots. The fact that dice from a contemporary level bears the same dotted pattern on one side leads one to consider these boards to be a part of a game (Mecquenem, 1943, p. 46, fig. 40, no. 14; FIGURE 5). A slab from Susa bears the pattern of 3 x 10 squares and has three cavities on the side, which were probably meant for counters (Mecquenem, 1943, p. 45, n. 1; Allinger-Csollich, 2003, p. 21, I.A.4: erroneous sketch after Mecquenem; FIGURE 6). The marks on this board must be compared to those on a fragmentary board with 3 x 5 squares found in the "Dépôt du Temple d'Inshushinak"(Mecquenem, 1905, p. 105, fig. 349; *Jouer dans l'Antiquité*, p. 163, fig. 158b; Allinger-Csollich, 2003, p. 25, I.A.16, no. 5), and therefore its identification as a game of 20 squares is questionable. A game of 58 holes appears on the other side of the board, like seen previously on another example.

The game of 58 holes. This game refers to two symmetrical circuits of twenty-nine perforations, each one to be completed by a player, thus making the total of fifty-eight holes on the board (FIGURE 7). The players, each possessing five pegs, start from the posts marked as A and A' on the diagram (FIGURE 7) and follow their respective circuits which lead to the common goal marked H. This 30th post is sometimes surrounded by additional holes. Certain cavities are differentiated by colored inlays, or motifs in the form of a rosette, or inscriptions denoting the stages in the evolution of the game. Some of these posts (B-F/B'-F' and C-D/C'-D') are linked by a line which permits a player to advance his piece or, on the contrary, obliges him to retreat. The game of 58

holes was practiced in the Near East from the 2nd millennium until the 1st millennium BCE. Ten boards are known to date from different regions in Iran: Tepe Siālk near Kāšān in west central Iran (Ghirshman, 1939, p. 42, pl. XXII.8; FIGURE 8), Susa (Mecquenem, 1905, pp. 104-6, figs. 345-351; FIGURE 9), northwestern Iran (British Museum, Reg. No. 1991.0720.1), and Lorestān (Luristan; see Amiet, 1976, p. 98, no. 240; FIGURE 10, FIGURE 10a). These boards were found with knucklebones at Susa and Tepe Siālk, but with no pegs unlike in Egypt, where zoomorphic sticks are well known and led to the game being called "Hounds and Jackals." Most of the pegs, being made of wood, have perished. Others, fashioned out of ivory or metal, have probably been ignored or erroneously catalogued as pins, like a peg with a monkey figurine associated to the fragmentary games in the "Dépôt du Temple d'Inshushinak" (Dunn-Vaturi, 2000; FIGURE 11).

Games seem to have been among the favorite funerary offerings. At Gohar Tepe in Māzandarān, a woman was buried during the 1st millennium BCE with a significant amount of bone gaming pieces (Anonymous, p. 6). A terracotta 58-hole game board was unearthed in an Iron Age grave at Tepe Siālk, and faience pendants imitating this game have been found in the same cemetery (Ghirshman, 1939, p. 44, pl. XXVII, 9 and 10), which attests to the miniaturization of games adopted as symbols. Sophie Erdös suggested that the anthropomorphic shape of the 58-hole boards from Susa refers to a cult of rebirth (Erdös, 1986, p. 118-19). The player had to move the peg along the board/body to ensure the revival. The god Inshushinak, who received a few boards as gifts, had, among other functions, precisely that of delivering the last judgment of the deceased.

Merels (Merreles) or Nine Men's Morris. A terracotta board from Susa (12.3 x 11 cm) exhibited in the Louvre (Sb 20908) shows a square crossed by one vertical line, one horizontal line, and two diagonal lines (FIGURE 12). A second board also from Susa shows an identical design (Louvre, Asb 11386). Unfortunately, neither board has a stratigraphic reference. The design is typical for the game of Three Men's Morris, or Smaller Merels, where two players attempt to place their three counters in a straight line, at the same time preventing the opponent to do so. However, the identification of these boards as game boards is not without doubts, since similar designs have been used as apotropaic symbols also.

The same holds true for the board of Nine Men's Morris, which was found in a room of the upper fort at Besṭām in western Azarbaijan (Kleiss, 1979, p. 155,

fig. 2.4 and p. 152, no. 74/54) and is incised on a pithos shard from a stratum of Urartean debris and dating to the first half of the 1st millennium BCE, but this seems far too early with regard to the earliest sources which definitely describe the game (Ovid, *Ars Amatoria* 3.365-66; Ovid,Tristia 2.481-82).

Random generators and counters. A great variety of random generators are known from ancient Persia:

a) A binary die of pyramidal shape, similar to the ones found in the royal graves of Ur and dating to the first half of the 3rd millennium BCE, is reported from Susa (Mecquenem, 1943, p. 46, fig. 40, no. 2). While the dice from the royal graves of Ur have two tops painted and two left blank, the one from Susa has only one top painted and three left blank, and, therefore, it reflects some acquaintance with stick dice.

b) Four wooden four-sided long dice with faces numbered 1 to 4 have been found at Šahr-e Suḵta and associated with the gaming board for “20 squares” (Piperno and Salvatori, pp. 179 ff., fig. 7).

c) Four-sided dice of unusual tetrahedral shape with numbers 1 to 4 have been found at Susa (Mecquenem, 1943, p. 46, fig. 40, nos. 7 and 8); they are dated to neo-Babylonian times.

d) Knucklebones of sheep (and possibly goat) and cattle, but also artificially made from bronze seem to have been commonly used as random generators (see Muscarella, 1974, p. 80, n. 21 with a list). Several examples including two bone knucklebones with one hole in the broad sides and one piece made of bronze and dating to the 12th century BCE come from Susa (Mecquenem, 1943, p. 46, fig. 40, nos. 9-12 and 13, bronze), as well as from Denḵā Tepe in Azarbaijan (Muscarella, 1974, p. 80). They become more numerous from the second half of the 2nd millennium BCE onwards, being frequently found in children’s graves. Children also used knucklebones for a number of games of skill that are played until now. The site of Nuš-e Jān, located about 60 km south of Hamadan, has produced a number of interesting knucklebones from cattle (Curtis, 1984, p. 48, fig. 16, nos. 432-34). The knucklebones have small holes to indicate the values of the four sides: the smaller faces resemble a human ear and a bird’s head (called *vulturius* by the Romans or “dog” by Greeks and Romans) and have 4 and 3 holes respectively (Schädler, 1996; Idem, 2007, p. 11), whereas the large faces, that is the rounded one (called “belly” by Aristotle) and the one with the deepening in the middle (called “back” by

Aristotle), count 2 or 0 and 1 point respectively, thus clearly attributing the higher scores to the faces the knucklebone comes to lie on less frequently. A similar numbering has been observed on a knucklebone from Geoy Tepe near Urmia in western Azarbaijan, dating from the pre-Islamic Iron Age period: it has one hole in the "back" (as the one from Nuš-e Jān) and two holes in the "ear" (Burton Brown, 1951, p. 175, pl. XIII.1531).

e) Cubic dice made of bone, stone, or clay have been in use since the 3rd millennium BCE with different systems of distributing the points. One of the earliest examples seems to be the dice from the settlement Tepe Gawra located near Mosul in northwestern Iraq (Mecquenem, 1943, p. 46), which has the numbering 1-6, 2-4, and 3-5.

At Susa, several numberings have been attested (Mecquenem, 1943, p. 46, fig. 40):

a) blank-small circle-four identical faces (one side blank, one with a small circle, and the other four with an identical ornament different from the two mentioned sides; no. 1, ca. 3000 BCE).

b) 1-2, 3-4, 5-6 (no. 3, end of the 3rd millennium BCE; no. 6, from an Elamite grave, 13th-12th century BCE).

c) 1-?, 2-3, /-X (/ is a diagonal stroke, and X is a variety of the cross; no. 5, from an Elamite grave, 13th-12th century BCE).

d) 1-1 (6?), 2-X, 3-4 (no. 4).

e) blank-1, 2-3, X-X (no. 14, end of Elamite period).

f) 1-6, 2-5, 3-4 (no. 16, 1st century BCE).

g) 1-3, /-2, 4-X (no. 18).

h) 1-4, 3-5, 2-6 (no. 15, Sasanian-early Islamic).

i) /-1, 2-5, X-3 (no. 17, Sasanian-early Islamic).

k) blank-/, 2-4, X-3 (no. 19, Sasanian-early Islamic).

l) blank-3, 2-X, /-4 (no. 20, Sasanian-early Islamic).

m) 1-2, 3-5, /-X (no. 21, Sasanian-early Islamic).

The 2 and 3 dots are variously arranged: 2 dots can be arranged either diagonally, as nowadays, or vertically, especially during the Sasanian period, whereas 3 dots can be arranged diagonally, or vertically, or in a triangle.

While the modern system of the opposite sides adding up to seven comes into more general use only in Hellenistic times, as reflected by the dice from Pasargadae (Stronach, 1978, p. 215, fig. 42.8 and pl. 169 e-g, numbering 1-6, 2-5, 3-4, dated not later than 280 BCE) and from Masjed-e Solaymān (Ghirshman et al., 1976, pl. 42, no. GMIS 208: black stone, numbering 1-6, 2-5, 3-4, Parthian; Idem, p. 146, pl. 73, no. GIMS 658: black stone, 250-379 CE), a probably Parthian example from Nuš-e Jān still bears another system (Curtis, 1984, pp. 53-54, fig. 19, no. 486: numbering 1-6, 2-4, 3-5).

Counters have rarely been retrieved or documented. Generally, two major types of counters can be distinguished; one type has a conical shape, sometimes with slightly concave edges, while the other has the form of a small disk. Both types have been attested at Tepe Yaḥyā for as early as the 3rd millennium BCE (Lamberg-Karlovsky and Potts, 2001, p. 149 fig. 5.5; Potts et al., 1970, pl. 17, C3-4). Tell-e Bakun, located 2.5 km south of Persepolis, has produced pawns in the shape of small decorated or plain disks, usually about 2.5 cm in diameter and 0.5 cm thick. Fourteen of them (Langsdorff and McCown, 1942, no. PPA, pp. 471-84) were found in room IV.3 (storeroom), levels III and IV (Langsdorff and McCown, 1942, pp. 69-70, pl. 82.38, no. 485 and pl. 82.39, no. 524). Among the finds associated with the famous snake-board from Šahr-e Suḵta, two truncated cones can be identified as pawns (Piperno and Salvatori, 1983, pp. 180-81, fig. 7), whereas it is rather unlikely that the small plaques of different shape had anything to do with the game. Two conical types are represented at Susa, one being taller than the other (Mecquenem, 1943, fig. 3; fig. 23, nos. 25-29).

Nard. Although the origin and history of backgammon are still poorly understood, it is clear that Persia played an important role in the early development of the game. The new finds from Jiroft testify to the fact that important characteristics of the backgammon board (rows of twelve cells divided into groups of six) had already been present around 2000 BCE. However, Persian tradition places the invention of backgammon under its Persian name nard (*nard*) only in the 3rd or even 6th century CE. The name of the game nard is an abbreviated version of the original Persian name nardšir

(Dehḵodā, s.v.). The Middle-Persian text *Kār-nāmag ī Ardaxšēr ī Pāpakān* associates the invention of the game with Ardašir I (r. 224-41 CE), the founder of the Sasanian dynasty, whereas in the Middle Persian narrative *Wičārišn ī čatrang ud nihišn ī nēw-ardaxšēr* (Explanation of Chess and the Invention of Backgammon) it is Bozorgmehr (see BOZORGMEHR-E BOḴTAGĀN), the vizier of Ḵosrow I Anūšīravān (r. 531-79 CE), who is credited with the invention of the game. Essentially the same story is told around 1000 CE in Ferdowsi's *Šāh-nāma*. However, another game has been substituted for nard, which is most likely merely a literary fiction combining elements of chess, nard, and the Greek game polis with the aim of creating the ultimate game (Schädler, 2002, pp. 99-102), since Ferdowsi's nard is otherwise unattested.

In the *Čatrang-nāmag*, the game is interpreted in terms of Zoroastrian cosmology: the board symbolizes the earth Spandarmad, the black and white counters represent day and night, while the dice stand for the revolution of the planets. The opposite points on the dice adding up to seven and the twelve squares on the board represent the seven planets and the zodiac. The movements of the counters, their being born off and reintroduced symbolize life, death, and resurrection. This very cosmology may also have inspired Indian artists who depicted the game several times in representations of Shiva and Parvati (Soar, 2006; Idem, 2007), despite the fact that the texts only mention a pure dice game and that nard/backgammon is not attested to have actually been played by human beings in India during the 1st millennium CE. The earliest material evidence for the existence of backgammon/nard in Persia is a 7-century silver and gilt bowl now preserved in the Sackler Gallery in Washington, D.C. (Demagne, pp. 126-28, no. 70; Finkel, 2004, p. 89, fig. 7.1; Semenov, p. 131, fig. 2; Gunter, 1991, p. 13; Harper, 1978, pp. 74-76).

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