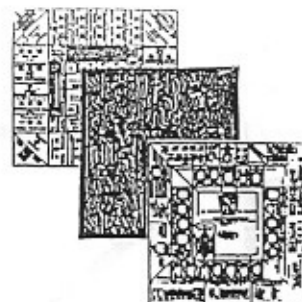


MONDAY, APRIL 12



Boardgames in Academia

Alex Randolph, USA,
games inventor, lives in Venice

Homo Ordinator

Hochschule für Musik und darstellende Kunst »Mozarteum« in Salzburg

Institut für
Spielforschung und Spielpädagogik



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O. HProf. Dr. Günther Bauer

MOZART BOARD GAMES

Mozart Board Games are an extremely difficult researchfield. Nobody until today has tried to find out if the Genius has or has not played the different board games of his time, as Chess, Draughts, Tric-Trac and other table games or as the Goosgame, Owlgame and other Table games. In Salzburg, Vienna, Munich, in Milan, Rome, Naples and Venice all this games were à la mode and we do know how interested Mozart was in every kind of games and new games.

Unfortunately we have no pictures showing Mozart playing board games but we have letters, diaries and documents stating that his father Leopold and sister Nannerl have played chess and other board games. In Salzburg at Mozart's time there was a living culture of board games at the court and in the houses of the Salzburg inhabitants. Chess, Draughts and Tric-Trac were part of daily life. Especially during the carneval-time all kinds of games were played at the ballrooms of the townhall and the houses of the Salzburg citizens. Vienna had a great tradition of board games too and most of Mozart's friends have played - besides card games, ball- and skittlegames - many different board games. Therefore we can be sure that Mozart, this *homo vere ludens*, who was so keen on billiards, card games, lotteries, society games, riddle games and "Bölzelschiessen" (shooting with an air gun), also knew how to play different board games of his time. He had to know them because of his being a young Cavalier visiting the noble and *bourgeois* society. It will be a great task in the future for the play and games research to find out even more details and documents on Mozart playing board games.

Günther G. Bauer

A SELECTION OF MATHEMATICAL BOARD GAMES

Aviezri S. Fraenkel

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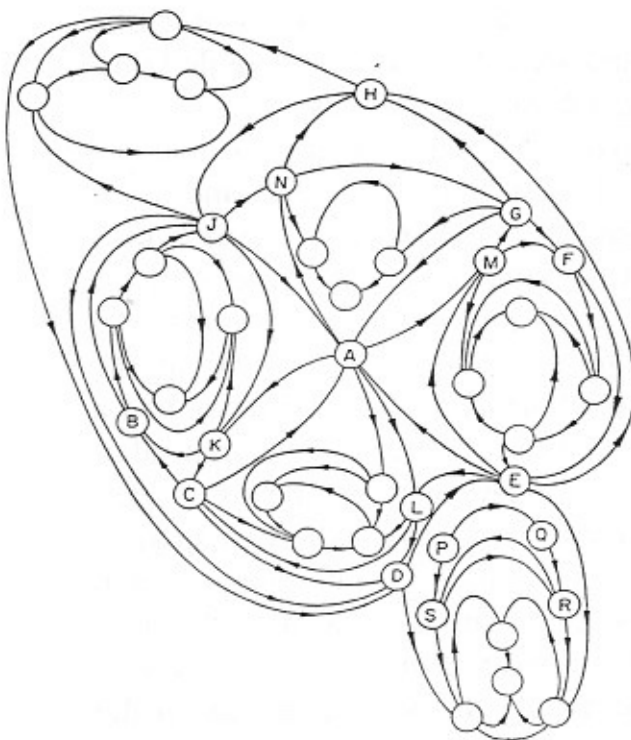
<http://www.wisdom.weizmann.ac.il/fraenkel>

Abstract. Both the easy game of NIM and the hard game of chess are *combinatorial games*, i.e., two player games with perfect information (no hidden information as in card games), without chance moves (no dice) and outcome (lose, win) or (draw, draw).

The large complexity gap between these games is due to certain mathematical differences between them: there are *cycles* (possible repetitions) in chess, but none in nim; interaction between tokens in chess, none in nim; chess is *partizan* and nim is *impartial*. In an impartial game, both players have the same *options* (set of possible moves), at every position. This is not the case for partizan games. Thus the black player in chess cannot move a white piece.

To bridge this complexity gap we adopted a *DIVIDE AND CONQUER* approach, where we attacked these mathematical differences one at a time, thus ascending from the easy nim to the hard chess in small strides which may be easier to handle. Each progress along this alpine climb was illustrated by designing some games which demonstrate the progress that was made.

We expect to exhibit and play some of these board games, which demonstrate advances in combinatorial game theory.



ABSTRACT

SNAKES, LADDERS and LUDO: INDIA and BEYOND

Although most people who play games for fun are unaware of the fact, *Snakes-and-Ladders*, and *Ludo*, stalwarts of many a domestic games cupboard, both had their origin in India, deriving from sophisticated adult race games that had been played there for centuries.

Both games reached England in the second half of the nineteenth century, and underwent a process of commercialisation and marketing that involved considerable simplification of the original rules.

Snakes-and-Ladders achieved permanent status as a traditional board game in England, but has scarcely been played elsewhere, although there are, of course, related race-games.

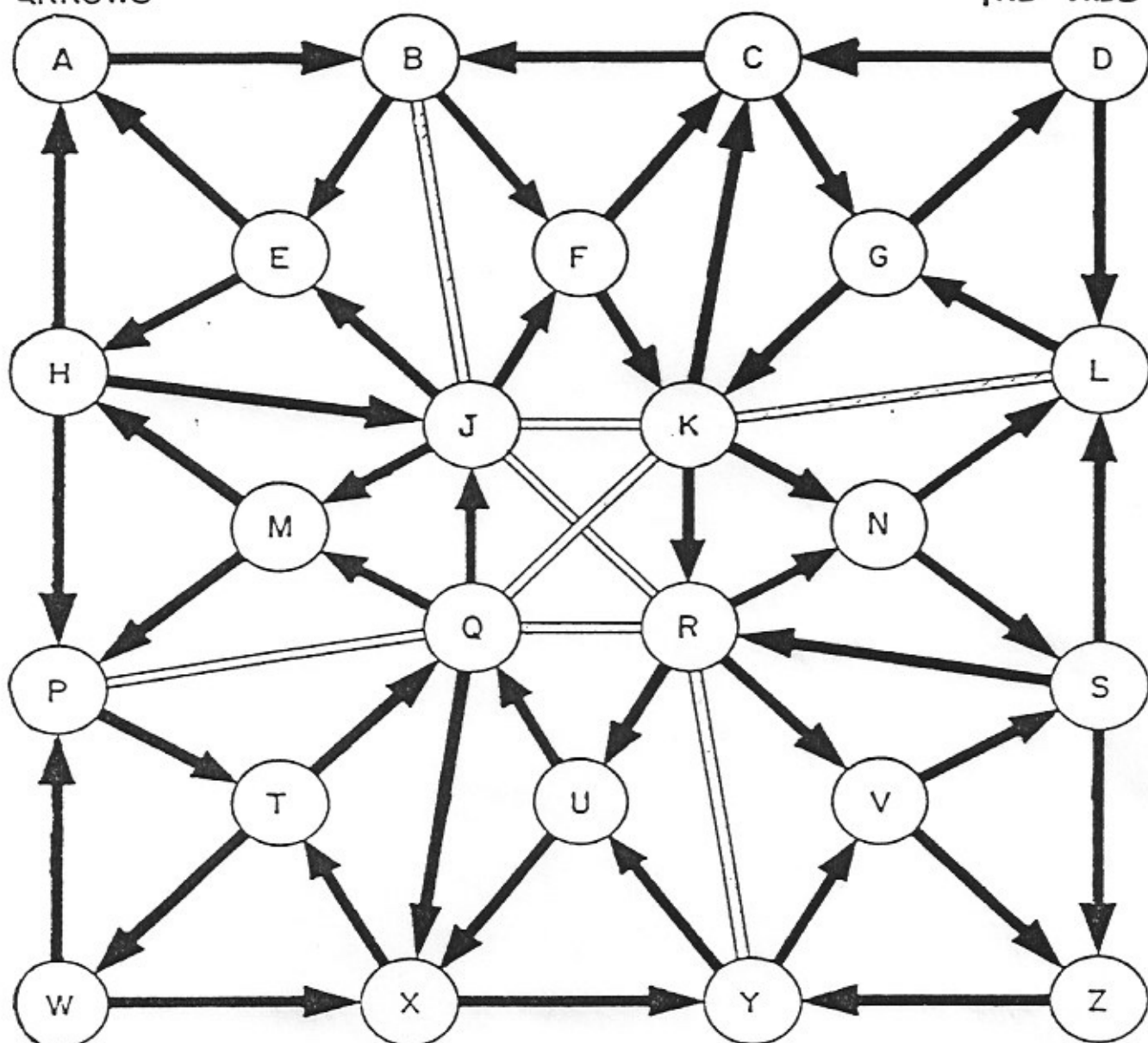
Ludo (or *Parchesi* as it is known in America), has, in contrast, achieved virtually global success, and boards can be found in the most surprising places.

This paper will look at the original Indian versions of both these important board games, and trace in outline something of their respective histories, ending with modern examples from India to complete the picture.

Irving Finkel.

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Arrows*

A game for 2 players aged 7 and up.

Game includes

Playing board with 24 lettered stations connected by red arrows (one-way) and blue tracks (two-way), and 14 playing pieces (7 of each color).

Object of game

To remove your opponent's playing pieces from the board.

How to play

Each player arranges his 7 playing pieces on the stations nearest to him—4 on the outer row, 3 on the inner row. A turn consists of moving a playing piece along an arrow or a track to an adjacent station. On the arrows, playing pieces may move one way only (in the direction of the arrow) but may move in both directions on the blue tracks.

- First player moves one of his pieces to an adjacent station. Play alternates.
- When a player is able to move into a station occupied by his opponent, his opponent's playing piece is removed from the board. A station cannot be occupied by more than one playing piece at any time.
- The winner is the first player to eliminate all his opponent's pieces from the board.

Notes

The arrow pattern was carefully designed to produce a challenging game. Specifically:

- (a) The second player cannot win by copying the moves of the first player.
- (b) No two-piece position is a draw: one of the two players can always force a win.

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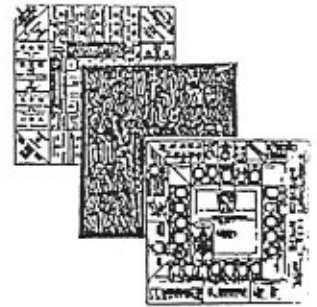


Ancient Boardgames by the Number

by Chris van de Riet

Once the matter of their origin had tickled my fancy, the games of mancala, and board and tablegames in general, nudged my life onto a calamity course. Returning the favour by becoming a professional gamesman and teaching 'World Games' to the audience of multi-cultural Holland, there was still this Quixotic vision at the back of my mind: mancala 2 x 6 should originate from the zodiacal 'Wheel,' an idea put forth earlier in the proceedings to Boardgames in Academia I, 1995. But how could that be so?

The moment of truth was October 1, 1998. Before my eyes, mancala 2 x 6 revealed itself to be a regular "pons asinorum" of the Wheel, Asino's Bridge to the Universe, Game of the Learned/Crazy indeed. The tiny key I had found worked wonders far above my expectations: the ancient games had once again turned the tables on me. The results I hope to present for scholarly dissection in April.



Distribution of mancala games

Boardgames in Academia

by Alex de Voogt

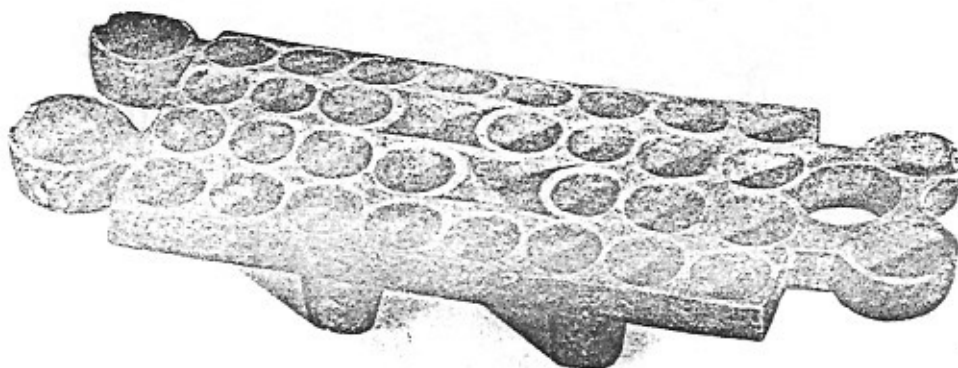
The distribution of mancala board games extends from West Africa to the Caribbean and parts of South America, from Northern to Southern Africa, from South East Asia, to South Asia and the Middle East. The many variations and the worldwide distribution of mancala has prompted researchers to raise the question of how the development and distribution of mancala games took place. It is common to see the distribution not as a plain dissemination. In the distribution a significant phenomenon of development becomes clear. The concept of development brings up other concepts such as stages of development and most eminently, the question of origin. This latter question is central in the following argument.

Townshend and others agreed with the concept of origin for mancala games and focussed in particular on the question whether mancala originated in Africa or in Asia. In 1995 and more extensively in 1997, Vernon Eagle rightfully observed that answering such a question of origin necessitates, apart from an extensive inventory, also a proper methodology underlying the classification. For this purpose he proposed the methodology of phylogenetic classification for the field of mancala games research.

The theories for explaining distribution and development through a phylogenetic classification date back to Darwin, in particular to his seminal work 'Origin of Species'. The analytical method itself was further developed and refined by Hennig.

This study outlines the theories developed by Darwin and later improvements by researchers in biogeography. For the purposes of this article it is not necessary to contrast these theories of biogeography. The assumptions of these theories and the questions they intend to answer are of main importance and, in the course of time, remained largely the same.

After this outline, the principles underlying these theories are questioned for their use in mancala research. A new perspective is proposed which tries to answer a question different from the question of origin and which concentrates not on variation but on stability of mancala rules. It is argued that this stability is more promising for our future understanding of mancala board games.



Strategies of expert awele players

Jean Retschitzki

Univ. of Fribourg (Switzerland)

Paper presented at the International Colloquium

"Board Games in Academia III"

Florence, April 12-15 1999

Summary

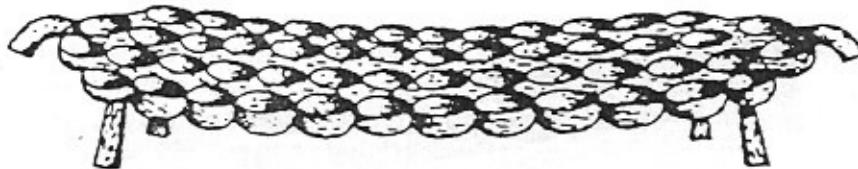
We have studied cognitive aspects of the so-called "national game of Africa", "awele" in Ivory Coast. The study was made with 38 schooled boys aged 9 through 15 in the village of Kpouebo and 11 adults (5 living in Kpouebo, 6 in Abidjan). The methodology we used was a combination of observations, verbal reports and tests. With the boys we also used different psychological tasks, either adapted from Piaget or created to measure several cognitive aspects possibly related to the playing ability. The adults were mainly asked about game situations, best and worst moves; we also used thinking-aloud games and didactic games.

We will describe the analysis of a particular "awele problems" task designed to account for the decision-making process during a game, according to the "rule assessment approach" described by Siegler.

The results of our different studies show converging evidence of high level intellectual activity. These data challenge the old idea that the best players are the old illiterate farmers. We claim that in order to be a good awele player it is necessary to have both general intellectual abilities and a large body of specific knowledge about the game. Our data suggest that the reasoning used by the best players is highly similar to the reasoning of western players of chess, checkers, etc. The players seem to use different means: anticipation, hypotheses, deduction, a concept of strategy, the consideration of several techniques, etc.

The study also shows that if an out-of-school task requiring formal operations is selected, unschooled subjects do manifest formal operations, at least in a domain they know well.

Recent programs running on micro-computers and the existence of several international tournaments would allow to test more clearly our hypotheses about the play of the best awele experts.



AMERICAN GAMES: A HISTORICAL PERSPECTIVE
by Bruce Whitehill

The publication and manufacture of board games in the United States is, by European standards, an industry still in its infancy. There is no evidence of any commercially-made American board games prior to 1822, when two were published, and no record of a third until 1843. Then, a small, Massachusetts publishing company, W. & S.B. Ives, produced *The Mansion of Happiness*, which was little more than a direct copy of its English namesake originally published around 1800. The significance of this game is its theme of moral instruction, reflected in other Ives' games, such as *The National Game of the American Eagle*, which added a political bent to its teachings, and a game whose title said it all: *The Game of Pope or Pagan, or the Siege of the Stronghold of Satan by the Christian Army*.

Ives dominated the scene until 1850, when John McLoughlin started selling hand-colored card games through his book publishing business. He developed one of the earliest assembly lines in the U.S.--cards passed from artist to artist, each adding the color he was responsible for. But the American game business did not take hold as an industry until 1860 when Milton Bradley, a lithographer, made improvements in the printing process, allowing for the mass-production of color images. His success was furthered by the introduction of what could be considered the first ³travel games²--small versions of his first game, *The Checkered Game of Life*, designed to fit in the pocket or knapsack of soldiers during the Civil War.

Bradley was prolific. Soon, other printing and publishing companies began producing games. Parker Brothers was formed in the 1880s, and by the mid-1890s, game production in the United States was a full-scale industry. Only one 19th century game invented in the United States is still widely played--but not in the U.S.! *Halma*, the forerunner of *Chinese Checkers*, was invented in 1885, and is still popular throughout the world.

Only Milton Bradley Co. and Parker Brothers survived two World Wars and the Great Depression. Other companies emerged, and games continued to reflect the society and time in which they were produced. War games fostered patriotism, inventions like the automobile, radio, and the telegraph gave rise to countless games depicting American and world progress, and games of aviation and travel celebrated the achievements of the Wright brothers and Charles Lindbergh.

No event had an effect on the American game industry as profoundly as television. Now there was a new way to advertise a company's products to a wider audience, and a better way to grab the attention of children. Television led to an increase in licensing which today seems to dominate the industry, and the emergence of large chain stores precipitated the demise of the small toy shop. The 1980s and 1990s saw an unparalleled move to buyouts and takeovers, leaving only a handful of family-owned game companies in the U.S. Now, the product lines of Selchow & Righter (started in 1867 and noted for introducing *Parcheesi* and *Scrabble*), Lakeside, E.S. Lowe, Ideal, Coleco, Milton Bradley, Parker Brothers, Avalon Hill, and others are all owned by one giant, Hasbro.

The early American games are now collected mostly for their illustrations, with scant attention to the way they were played, and only incidental research being conducted on how they were used to instruct, inform and educate.

Little has been written on how games have been used to teach America's children and enlighten its adults, and how the games of a short 140-year period reflect the evolution of the culture in which they were created. One thing is certain: games help define and change a society and, at the same time, record what that society valued.

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ABSTRACT

Tradition and Variation in the Game of Goose

The Game of Goose (Jeu de l'Oie, Gioca dell'Oca) has its roots in late-16th century Italian numerology, based on Cabalistic systems of thought. In its original form, it is clearly a game of human life, with favourable squares (geese) and with hazards, such as the prison, labyrinth and death. Many variations on the game have been developed using the basic structure of favourable squares that have the effect of doubling the dice-throw forward. This common feature serves to define goose games, differentiating them from other spiral race games. In other respects, goose games may be very diverse, often having no overt reference to geese, but using themes with political, educational, moral or historical significance.

A feature of these games is that almost all include printed statements of the detailed rules of play. The variations in these rules seem to have been little studied yet they provide an interesting means of probing the diffusion and development of goose games in Europe. In Italy, the strength of tradition has been such as to keep rule variations to a minimum. By comparison, in France - where the game had its most spectacular development - there is somewhat more freedom. For England, where the importation of the game can be precisely dated to 1597, studies of the subsequent rule variations indicate that the symbolic aspects of the game were little understood. Also, in some cases there are capricious features, indicating that the playing principles themselves were not fully assimilated.

The presentation will concentrate on the special rules dealing with an initial throw of 9, which in the absence of such rules would result in an instant win.

Adrian Seville

City University, London
25 February 1999

Caroline Goodfellow
Bethnal Green Museum of Childhood

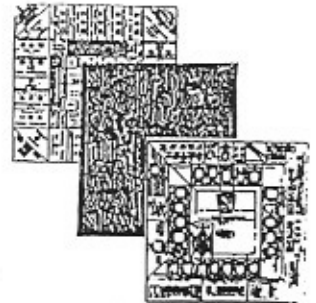
THE STORY LINE, THE LATE 18TH CENTURY RACE GAME

The Game of Goose with its simple 63 compartment spiral and strict moral code was transformed, toward the end of the 1700s, into a wealth of children's games. Dedicated publishers decided that learning through play was fun, relatively easy and very educational.

All and every subject that could be taught was transformed into increasingly larger formats; some number more than 150 squares. To the ideas of morals and behaviour were added history, geography, sciences and arithmetic. Used as a method of teaching through play, the games combined reading and memory skills with the gambling instinct

Many of the games were engravings and most were produced by just a few publishers. The games were updated and amended when new inventions, countries and even planets were discovered. Those games based on history were amended to include the events and deaths, particularly of the monarch himself.

Most publishers issued a booklet with each game with the names of each square and the reward or forfeit allocated to it. The booklets also contained what is now a major insight into the ideas and ideals of a particular period in time. How, what and why certain facts were selected and how they were represented is a study in history for us.



Boardgames in Academia

Thierry Depaulis
Dissymmetrical Blockade Games

There is a small class of games which has been hardly noticed. I call them "dissymmetrical blockade games". Although not very frequent blockade games, such as the Maori game "mu-torere", form a class by themselves. The few examples that Murray gives are all from Asia (Punjab, Korea, China), even if they are known in Europe as well, like the "jeu du fer à cheval" (horseshoe game) or "la madelinette". These games are symmetrical, that is the two players have the same (small) number of pieces (two or three). The object of the game is to block the opponent. There is not capturing.

Dissymmetrical blockade games have the same object and use the same mechanism but one player has one man (with no capturing power) and the other two or three. When noticed these little games have been mistaken for hunt games which they somewhat resemble. It is Assia Popova who was the first to distinguish this class of games among the Mongolian games she described in her article of 1974. She calls them "jeux de poursuite" (pursuit games). Are the Mongolians the only people in the world who play dissymmetrical blockade games?

There are known in Europe too. My survey was stimulated when reading Carlo & Luca Gavazzi's *Giocare sulla pietra* (Ivrea, 1997). Carlo and his son are archaeologists who devote themselves to surveying rock carvings and especially rock carvings that look like game boards. They have inventoried and have published in their book all the carvings they have found in their native Piedmont and in Liguria. While most of them are merrels boards of all shapes the Gavazzis have found a strange little round game played at Forgnengo (Campiglia Cervo, near Biella, Piedmont) called "il gioco dell'orso" (the game of the bear). At first sight thought to be a unicum the game of the bear does have relatives. In 1886 a French military journal published a "new" game called "le jeu militaire", which is a dissymmetrical blockade game (3 against 1), and there are some traditional games played on a draughtsboard like the "jeu de la patte d'oie" (the game of goose's foot) (3 against 1), or "entre chiens et loup" (between dogs and wolf) (5 against 1). These are French examples but I am sure there are such games all around Europe.

Not only "il gioco dell'orso" is any longer alone but the same game was known in the French Sologne too! In Bernard Edeine's large ethnographical survey (done in the late 1940's, published in 1974) there is a small unremarkable round game called "le jeu des gendarmes et du voleur" (the game of the policemen and the thief). Three pieces are opposed to one. The rules are the same as in Forgnengo. But here the board design does not look like a soccer ball: it reminds us of carvings that are widespread in Roman cities, like in Ephesus, Rome or Didyme.

Nothing is positively known about how these designs were used. It has been postulated they were a round form of merrels - which some German game book call "Radmühle" - but I was unable to find any actual play in modern times. So I wonder whether these "round merrels" boards were not used for a quite different game, a dissymmetrical blockade game like "il gioco dell'orso" (Latin name unknown!).

Spartaco Albertarelli, Milano:
1000 ways of playing Monopoly



We know that the rules of ancient board games have changed during centuries, primarily because they were not written. But what happened to the rules of the best selling, best known, modern board game: Monopoly?

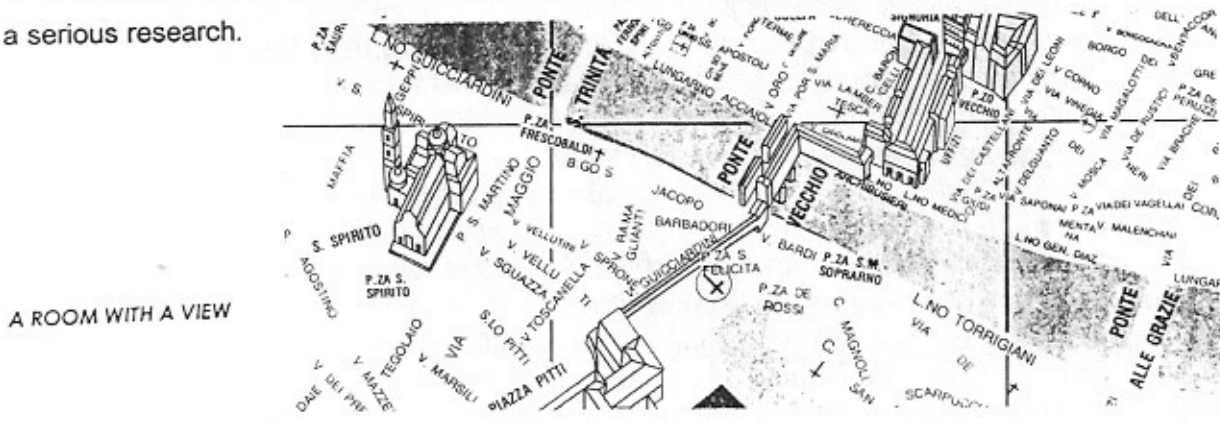
We know that they never changed since the first edition, so today you can buy a copy of the game and read exactly the same rules your great-grandfather read more than 60 years ago. Nevertheless only few peoples play Monopoly in the right way: why?

Because since 1935 people started to hand down the rules orally, from father to son, in the same way our ancestors did with the earliest board games. So today only few people know the original rules of Monopoly.

We can say that quite every family has her own set of special rules, and is strongly convinced to play with the right ones. But what is even stranger, is that everywhere in the world people have changed the rules in a similar way: we can find the same "family rules" in Italy as well as in UK or USA or France.

The question is: can we say that there has been something in common in the way of changing the rules of this game? Why different people have made the same changes? Is there any relationship between the game, the original rules and the "family rules"?

I have no answer to this question, but with my speech I hope to spur somebody on to start a serious research.



Beniamino Sidoti:

WORKSHOP: The game as a species of Story-Telling:
Performance, Competence and Enemies in Narration and Playing,
on the example of "Scoop!" (Parker Brothers) and "Reporter" (Editrice Giochi)

Summary

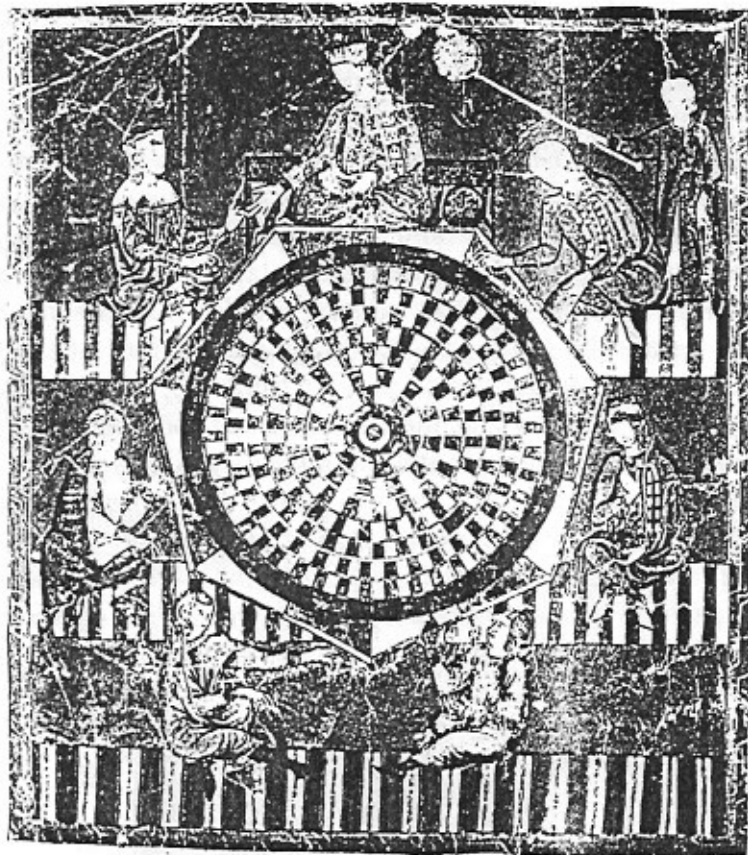
Reflections on board games at the end of the Middle Ages

by Alessandra Rizzi

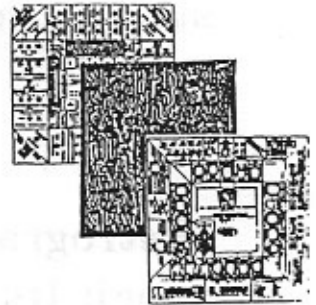
The lecture will present several considerations on gambling in communal Italy, during the last centuries of the Middle Ages, a crucial phase in the history of games. In fact, during this period of time, and not without some difficulty at first, there developed a renewed, clear recognition of the importance of game-playing. After games had been marginalized in the early Middle Ages, there was a change in the attitude of the contemporaries which began in the XII century and better still, in the ones following (XIII-XV), acknowledging games as inevitable activities for man to be taken into account. In this rediscovery of the importance of game-playing, aleatory games (and, as a result, especially those games that today fall into the category of board games) particularly attracted the attention of legislators concerned with the economic implications and of clergymen preoccupied with the moral ones related to gambling. So, at the end of the Middle Ages, it was thanks to the attention drawn by gambling, that board games and consequently, games in general, became a significant part of the thoughts of the people. The examination of the importance of game-playing, especially gambling, on the part of the contemporaries was visible above all through the public authorities' interest and need to discipline it. It was a matter of establishing which games were to be abolished and which instead, could be played. The interesting aspect is the criteria with which certain games were defined as lawful or unlawful as well as which circumstances (actions, places, times, people) related in various ways to gambling, were to be subject to the disciplinary actions of the Communes. The route taken by city authorities to restrict gambling, in particular, appears to be difficult and not uniform and the evaluation of local and contingent situations often seems to be the guiding criterion in the disciplinary actions which, however, show strong common characteristics. Two last considerations. Despite the labouring rediscovery of the importance of game-playing, there did exist a great variety of board games played. Secondly, the consistent action of civil and religious authorities against aleatory games in the last centuries of the Middle Ages did not prevent the state from making this passion for gambling a profitable tool in several cases.



In his list of six types of chess-games the Arabian historian Al-Masudi writing in the 10th century mentions a game called „celestial chess“. It is played on a circular board divided into twelve sections for the zodiac signs and with seven gaming stones representing the planets. Probably the same game is described in the 14th century by the Persian lexicographer Al-Amoli in his „Treasury of Sciences“ as a game for two players with the aim to reach a particular position of the planets on the board. The rules of this „celestial chess“ obviously differ considerably from the „astrological chess“ called „escaques“ described as a new game („juego nuevo“) by king Alfonso X el Sabio in his collection of games finished in 1283. Despite the importance of the game for the understanding of Alfonsine ideology indicated already by its meaningful placing in the 7th chapter and the 12th fascicle, corresponding to the number of heavenly bodies and zodiac signs, it has hitherto not excited the interest it deserves. The paper discusses the evidence concerning these games with particular focus on the underlying astrological system. The detailed iconography of the planetary deities based on classical and Arabic models leads to some reflections regarding the astrological chess as a metaphor of the world within the framework of Alfonsine ideology.



THURSDAY, APRIL 15



Boardgames in Academia

Pascal Romain

Bordeaux Archeological University

Representations of Board-games in Antiquity and their signification.

Considering what has been done on the topic of old Board-games, one must admit that our comprehension is far from being complete. This is partly because of the lack of archaeological evidences, and partly because of our ignorance of the precise rules of those games, and of the motivations of the players who played them for such a long time and in so various places. Our knowledge of the chronology and the localisation of the objets and figurations related to Board-games have increased in the last decades, since more and more people get involved in the various forms of this subject ; structures start to appear and our consideration of the act of playing on a board in the Antiquity is becoming more precise.

In our wish to provide new lighting on the subject of old Board-games in Western Asia we will consider it exclusively through the angle of representations; we use a large definition of this word. We feel that it is a very appropriate instrument to appreciate the several dimensions of what could have represent, for antique civilisations, simulations of their laws and habits with the help of a board-game.

Our research will thus consider the different aspects of the same thing- to stand back from the world- in three dimensions : iconographical representations and the possible signification of their variations. Spiritual representations and recurrence of their form and artistical motifs. Social representations and what they tell us for the comprehension of the civilisations who used them.

We must also say that we are considering these problematic from a very subjective eye, the eye of a modern board-game player who is very receptive to the different ways of reading the hazard and its representations.

Retrograde Analysis of the KGK Endgame in Shogi: Its Implications for Ancient Heian Shogi

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Abstract. This paper explores evolutionary changes of Shogi (Japanese chess) using game-theoretic analyses by computer. Heian Shogi is an ancient game only briefly described in the literature. Therefore, it is impossible to know exactly how it was played. Through game-theoretic analyses of rules, we estimate the historical changes of this ancient game. Our method provides a new innovative approach to guess logically how these ancient games actually have been played. This paper focuses upon the game results of the KGK endgame on $N \times N$ boards, applying game-programming methods. Then it determines the size of the boards in which the side of King and Gold always wins except trivially drawn cases with the Gold being captured. Based on the analyses, we discuss the rules of Heian Shogi. We specifically provide a logical interpretation of the shift from the 8×8 boards to the 9×9 boards in the evolutionary history of Shogi.

Keywords: evolution of games, retrograde analysis, KGK endgame, Shogi, Heian Shogi