Board games

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Board Games

by

Elizabeth Teresa Nygaard

A thesis submitted to the graduate faculty

in partial fulfillment of the requirements for the degree of

MASTER OF ARTS

Major: Interdisciplinary Graduate Studies (Arts and Humanities)

Program of Study Committee:
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Iowa State University
Ames, Iowa
2001

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This is to certify that the Master's thesis of

Elizabeth Teresa Nygaard

has met the thesis requirements of Iowa State University

Signatures have been redacted for privacy
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CHAPTER 1

GENERAL INTRODUCTION

I grew up in a family of game sharks. Everyone loved to play games. Most of my cousins on my Dad's side of the family played card games like Five Hundred. But there was only room for four at the card table. I had a lot of older cousins. As each left home for college or work, there was a vacant spot at the card table. I would like to say that I moved into one of those spots eventually, but I never did because there were just too many older cousins. By the time I could have joined the big kid's card table, I was off to college. So we younger cousins played other games.

Mostly we played card games like Touring or board games like Monopoly. When we played Touring, my cousin Norm and I always were partners. Our motto was, "You wreck us, we'll wreck you." My sister and my cousin, Rita, were more succinct. Their motto was, "Ditto."

We played Monopoly and Clue a lot. When we played Monopoly everyone else wanted to buy Boardwalk and Park Place. I wanted all the purple properties. Professor Plum was my character in Clue. I guess you could say I liked Royal colors even as a young child. To me the game board for Clue looked like a map. It reminded me of the kind of map you find on old paperback mystery novels. I've always liked that kind of art.
The great thing about Monopoly and Clue is that no matter how many times you play the game, the outcome is always different. And being able to play games over and over, knowing the outcome is up in the air, is part of the fun of playing games.

My husband taught me to play Chess. Naturally the Queen was my favorite piece. But I am sorry to say I was no match for anyone in Chess. We played Backgammon, Parcheesi and a detective game called Columbo, too.

When we had children we wanted to share our interest in games with them. We purchased a few children’s board games and taught the boys how to play them. We started with a very simple game, Eency Weency Spider. In that game each player had a long cardboard strip with maybe eight squares. The playing pieces were plastic spiders that could move up or down the boards. Moves were controlled by a spinner. If I remember correctly, the spinner could only stop at rainy day or sunny day; the spider moved up only on sunny days and fell back on rainy days. We also tried games like Operation, Mousetrap, and Chutes and Ladders.

Fortunately, both boys liked all sorts of games. Sunday night was our big game night. In the summer we played games outside. We each got to choose one. If we made up the game, we had to explain how to play it. We played lots of strange games in those days. Part of the fun was naming the game. Instead of tag or hide and seek, we called our games Blue Blancmange, Bone Devil, Vampire, and Tape Recorder Bad Guy. Some
games worked. Others did not. Looking back at that time, I think we all learned a few things. One is that failure can be good. We learned that we could revive a game that seemed like a failure the first time we played it by rethinking the rules. We learned that we could build on each other's ideas to add new twists to old games. Part of the fun of making up our own games was the process of thinking about how to create new and interesting ones.

On rainy Sundays and in the winter we played board games. I searched toy stores, thrift shops and second hand stores for games we could play and started building our collection. We scrounged games from my relatives. Soon our collection included The Amazing Labyrinth, Ghost Party, Othello, Stratego, and several versions of Monopoly and Clue. My brother carved a Mancala board for me and we tried to learn how to play different count and capture games.

I discovered that I was drawn to some games because I liked the design on the board. Boards that looked like maps got my attention. Then I read the instructions to decide whether the game would be fun to play. I even bought a few boards that didn't come with instructions. Many of those boards looked like maps. No surprise. The games without rules were interesting because we made up the rules for play. We figured that if everyone agreed on the rules, we could play a game any way we wanted to and it worked. I liked game art and making up, altering, or rewriting rules for games.
Since I worked as a freelance artist, I had opportunities to draw all sorts of things. I did a lot of work for educational publishers. I illustrated magazine articles, newspaper articles, books for teachers, and activity books for children. One of my assignments for an activity book for children was to draw a simple race game with a Christmas theme. I so enjoyed creating the game that I soon started drawing race games for my youngest son to play.

They were simple black and white games with themes like Jungle Walk or Exploring the Pyramid. Most of the games were race games. In most race games the goal is to reach the end first. I used six sided dice, coins, and simple spinners as tools of chance. We started collecting small objects that could work as playing pieces—tiny dinosaurs, small characters, animals, and colored pawns.

My son followed my example and designed his first game when he was five years old. By the time he was in first grade we had developed many race games. His teacher used some of them with her students.

As I studied more and more games, I started reading about the history and play of all sorts of board games. I began to draw boards and write rules for traditional games like the Hyena game and Luk Tsut K’i. I shared this information with teachers too.

When I started graduate school in Interdisciplinary Graduate Studies, one of the first questions I heard was, “What are you going to write about in your thesis?”
I always answered, “Board games.”

And the response was always something like, “What an interesting topic.”

Encouraged, I delved deeper into the subject of board games, particularly the historical and traditional games which many of our current board games might call their aunts, uncles, and cousins.

In graduate school I took my first art class. It was called “Artist’s Books”. Artist’s books are often one of a kind manuscripts or objects that explore the art of bookmaking or combine written words with art. Making artist’s books was like making board games for me. I got to play with stuff: string, paper, small objects, watercolors, markers, and glue. I created several artist’s books about board games. One was a series of postcard sized games I had drawn and reduced on a photocopy machine. It was sort of a “Greetings From Board Game World” set of cards. Another was a book with handmade ancient Egyptian game boards and pieces.

My next art classes were art education classes. We graduate students wrote New Art Basics (NAB) strategies for teaching art in elementary, middle school, and high school. The strategies are written for teachers. Students don’t read them. Two of my strategies involved teaching students to use the creative process to create their own race and strategy games. I wanted the students to use higher level thinking skills such as analysis, synthesis, and evaluation when they created their board games. I thought playing games would let students see the relationship between the design of the game and the strategies that might lead to winning a certain type of
game. In my New Art Basics strategies, I suggested that students learn to play some traditional and ethnic board games first. I suggested that students could work in groups to study race or strategy games. After playing a few games, the students could try to create their own new games on paper. They would evaluate the games and then choose to make the one they thought would work well. The students had to figure out how to make boards and playing pieces, and write the rules for play. Then they had to test the games and revise or rethink what they had done. Finally they would play each other's games and evaluate them according to criteria the whole group of students suggested.

My idea was that students could learn a creative process that would help them as they invented a new and different game. Students would learn how to understand the structure of a certain type of game. They would literally take a game apart and put the parts back together to create a new game. Finally they would evaluate the games. Were the new games fun to play? Did the rules make sense? They would probably choose to ask questions like that. Then they could try to figure out ways to improve the games. In short, the students would become game inventors as they used both creative processes and the logical process of evaluation.

I was excited to have a chance to write those strategies because they gave me a chance to think about the creative process as well as a way to develop a product. I think most children have probably played a variety of games in their lives. So this is something they know. Creating a new board
game could be a meaningful and engaging task. There is no right or wrong way to create a new board game. Children need ample opportunities to explore materials and think about how materials could be used if they are going to create something. They need time to think about ways to solve the problem. And they need to figure out their own solutions, try them out, rethink, revise, and rework ideas when things don't work out exactly right the first time. But I don't think children must be in a class to do these things.

Originally I had planned to write a thesis directed at educators. But I quickly changed my mind. I write books for children. As I studied more books and documents and talked with more board game enthusiasts, my focus came back to writing for children. So this is what I propose to do. My contribution to the growing body of board game research is to write this illustrated history along with a few suggestions for how to create board games for middle grade readers. My principal audience is children. There are many books for children on the games of chess and backgammon, but I have not located any that cover the history of board games and how to invent games for middle grade readers. I think presenting the information about board games in this way will serve my purpose. The purpose of my research is to combine the interdisciplinary genres of art, literature, and history with some practical information on inventing games.

Since the book is aimed at young readers, there are no footnotes. The book is research based but does not follow the traditional scholarly pattern of using footnotes. However, there is an extensive bibliography. There are
also instructions for how to play some traditional games included in the main
text in most chapters. I have omitted rules for common games such as
Chess, Go, or Backgammon. I chose to include games that may not be as
familiar to young game players. I included a small picture of the game
board, but it will be up to the reader to create the larger playing board.

In this thesis, I intend to tell stories about board games as they are
mentioned in history and literature, share pictures of board games, and
describe how to play a few games that might inspire readers to think about
the structure of board games. The last chapter contains a few suggestions
for young readers who want to invent games. I want my readers to come
away from this book with a greater appreciation for the art of game design
throughout history and the desire to try their hand at inventing new board
games.
CHAPTER 2

INTRODUCTION TO BOARD GAMES

The chances are that somewhere or other any board game that has ever existed is still played, though possibly in a more developed form.

H.J.R. Murray, A History of Board Games Other Than Chess

Children in almost every country in the world play some kind of board game. Sometimes it looks like the same game. When children play Epelle in Nigeria, Tant Fant in India, or Three Men’s Morris in England they use the same game board. But the rules are not always the same.

Game board for Epelle, Tant Fant, and Three Men’s Morris

All board games have a few things in common. To play, you need game materials such as a board and playing pieces. You need to have a goal. If you are supposed to race along a track and finish first, that is a goal. If you’re supposed to take all of the other player’s pieces, that is a different goal. Every game needs rules. And of course, you need to have players. Without players there is no game.
Whether you scratch the lines in the earth or scoop holes in sand, the surface you play on is called a board. Game boards can be made of any material. You can make them using cloth, cardboard, paper, wood, or clay. In the past some game boards were carved in stone. Wealthy people like Kings and Queens owned gold or marble boards. Ordinary people had to make do with other materials. They used animal hides, shells, flat rocks or whatever was handy when they wanted to play.

Examples of game boards

Playing pieces can be made out of almost anything, too. Some playing pieces were made of gold or silver, but people also used wood, plastic, metal, paper, stones, nuts, shells, beans, seeds, and twigs. Mancala game players use pieces that look the same. So all you need is a nice pile of beans to play. In a game like Checkers, each player uses a set of different colored pieces. But the pieces could be made of paper, wood, or anything. The important thing is that players need to be able to tell their pieces apart.
Some games need tools of chance. Tools of chance are anything players use to determine the moves the playing pieces can make. You can use dice, spinners, or coins. But you can also use shells, bones, or marked sticks as tools of chance. It's easy to make simple ones for race games.

Sometimes players need other materials to play a game. Cups for dice, small objects, booklets with questions and answers, or other things are part of the game kit.
All board games have a goal and rules. The goal can be simple. Reach the end of the path first, and you win. Some goals may require players to use strategies to win. You will need to think, plan, and try out different strategies when you play Tic Tac Toe or Go. The goal of Tic Tac Toe is to make three in a row. The goal of Go is to control the most territory on the game board.

Board games have rules too. Rules tell players what to do, how to do it, and how they will know when the game is over. They let players know how many people can play a game at one time and describe what to do with the playing pieces and other materials. Rules can be simple or complex.

Board games are probably as old as civilization. The first games were played over 4000 years ago. No one knows for sure what the first game was, but the past holds some clues. Ancient civilizations left clues about the games they played in their artifacts, pictures, and written records.

Artifacts are the things people made and used. Board games are one kind of artifact. Some artifacts are small enough to carry in a backpack. Some of the earliest boards and pieces are that small. Other artifacts would be too heavy to move. The boards carved on temple roofs in Egypt won’t budge.
Pictures are drawings or paintings of people, objects, or scenes. Pictures don't have to be drawn or paper or canvas. They could be drawn or painted on walls. One painting on a temple wall in Thebes, Egypt, shows King Rameses III playing a game called Senet.

Written records are anything people wrote. Laws and histories are written records. So are biographies, plays, stories, poems, and even letters to friends. But written records don't have to be written on paper. Some were written directly on walls. Others were written on stone or clay tablets. Sometimes written records were lost or destroyed, but we know they existed because other writers copied the original records.

The purpose of this book is to combine art, literature, and history with practical information on how to play games and how to get started if you
want to invent your own. You may want to use it as a reference book to study different types of games. Pick and choose the ones that sound interesting to you.

Even though the ancient Greeks thought there were only games of skill or chance, most modern writers use a few more classifications. H.J.R. Murray, a famous game historian, looked at games and based his classifications on what people did in early times—counting, lining up and arranging, hunting, warring, and racing. He called his classifications: Mancala, alignment and configuration, hunt, war, and race. Many game writers use Murray’s classifications when they talk or write about games.

This book is also divided into chapters—race, row, hunt, war, and Mancala—that describe the history of each type of game. You won’t learn how to play Chess, Backgammon, or Go, but you will learn how to play a few less well known traditional games. After you have played a few traditional games, you may want to try your hand at inventing a new one. The final chapter contains a few tips and suggestions to help you get started.
CHAPTER 3

RACE GAMES

If thou wisheth to win at backgammon, take a raven's heart, dry it on a spot on which the sun doth not shine, crush it, and then rub it on the dice.

From a manuscript in the archives of the Icelandic Literary Society

In race games, players move along a track from start to finish. If you've read the book Jumanji by Chris Van Allsburg, then you know Jumanji is a race game. You notice the track of any race game right away. The track is what makes the pattern on the board. Patterns can be straight or wiggly lines, spirals, crosses and circles, or a series of squares on a square board. Usually the first player to finish wins the game. Moves are directed by tools of chance such as dice or spinners.

Some of the earliest examples of race games were found in Egypt. When archaeologists opened tombs in Thebes, Egypt, they discovered many treasures. The tombs were carved in limestone cliffs. Tunnels and hallways
burrowed out of rock led to burial chambers filled with artifacts. Pictures painted on the walls showed people going about their daily lives. They did things like win wars, build monuments, worship gods, and play board games. Often hieroglyphics told what the people were doing.

![Picture of board game with hieroglyphics](image)

The tombs were burial places for kings and nobles. After a person died and was mummified, the body was placed in a stone sarcophagus or coffin. The things the person used in life or could use after death surrounded the sarcophagus. Sometimes board games were found among these personal goods.

The ancient Egyptians believed they would have a different life after they died. They thought people would be judged on what they had done while they were living. Living a good life meant the person would get rewarded. Living a bad life led to punishment. Only the good people joined Ra, the sun god, after they died.

One of the things the dead could use after death was *The Book of the Dead*. This book told the dead how to act and what to say in the next world. Scribes and artists copied and recopied the book so each person would have a copy of their own. Each book was written and illustrated on papyrus, a paper made
from plants. Sometimes the book was written for a particular person. Sometimes a shorter version of the book was copied and the person's name was added later. *The Book of the Dead* could be anywhere from 20 to 90 feet long.

One copy of *The Book of the Dead* belonged to Ani, who worked as a royal scribe. Ani’s papyrus was translated in 1895 by E.A. Wallis Budge. One section talks about Ani “...coming out and going by day in all the forms of existence which please him, of playing draughts and sitting in the hall, and of coming forth as a living soul.”

Ani playing Senet

The game called draughts was probably Senet. Senet games have 30 squares on the game board. Often five of the squares are marked with symbols. The symbols stand for the words good and bad and the numbers one, two, and three. Twenty playing pieces that looked like lions have been found with some boards. There are ten dark colored lions and ten light colored lions, so each player probably had ten playing pieces of one color. Several different kinds of tools of chance have been found with the game boards. Archaeologists found knuckle bones in one tomb and long stick dice in another. There are no recorded rules for how to play the game, but some
modern game writers have proposed rules based on other games they have played.

Sometimes there is another game on the other side of the Senet board. That game is called the Game of Twenty Squares. As its name suggests, there are twenty squares on the game board. Five of the squares have flower like designs on them. No one knows for sure how this game was played.

Almost 4000 years ago the Egyptians played a game called Hounds and Jackals. The game board was a race track with holes for pegs. One game board has an ivory top with a palm tree carved into the middle of the game board. There are 58 holes on the board. Small pegs with heads that look like lions or jackals have been found in drawers on some game tables. A game board with a similar race track turned up in the city of Ur in Mesopotamia. This board was made of baked clay almost 3000 years ago. No one knows for sure how to play either of these games.
In 1926 Sir Leonard Woolley discovered some board games in the royal graves in Ur, Mesopotamia. The game, now called The Royal Game of Ur, was played over 4000 years ago in the area that is modern Iraq. The game looks like it might be related to Senet and The Game of Twenty because the board has a similar pattern. Game boards have twenty-one squares. Five of the squares are marked with designs. One example of the game has a game board inlaid with shell, lapis lazuli and limestone. There are designs on all of the squares. The game came with seven black pieces and seven white pieces. Two sets of different colored pyramid shaped dice came with the game. Probably the player with the black pieces had dark colored pyramid shaped dice and the player with the light pieces had light colored dice. A cuneiform tablet tells the names of the pieces and how to use the dice. According to the tablet some squares on the game board were lucky squares. But how do the playing pieces move? No one knows and the tablet didn't explain.
In early Rome, people played games called Duodecim Scripta, Alea, and Tabula. Duodecim Scripta means “twelve lines.” The game board had three rows of twelve squares. Sometimes the squares were marked with shapes like squares, circles, or crescents. Other times they were marked with letters or even words. R.C. Bell translated the sayings on several boards. One says, "To hunt, to bathe, to play to laugh, this is to live." The other says, "Jump up, push off, you can not win, get out, baboon." Each player had fifteen playing pieces and a set of three dice. To win, players probably had to get all fifteen pieces around the track and off the board.
During the reign of Emperor Titus, Mount Vesuvius erupted and covered the city of Pompeii with lava and ash. The city slept under volcanic soil until it was discovered by men digging for a well in the 18th century. Excavations of the city revealed streets, homes, shops, temples, and a tavern with two interesting paintings on the wall. The first painting shows two men arguing over a Duodecim Scripta game. The second painting shows the tavern owner telling the men to leave if they want to fight. Perhaps the paintings were a warning to players who got too caught up in the game.

Alea looks like a similar game but instead of three rows of squares, there are two rows. The game was popular in the 1st century AD. Each player had fifteen playing pieces. Dice were the tools of chance. Sometimes players gambled on their chances of winning Alea. There must have been gambling problems because for a time church leaders were not allowed to play.

Suetonius, a historian, says that the Roman Emperor Claudius wrote a book about Alea, his favorite game. The book is now lost. But Suetonius also says that Claudius was so fond of the game that he had a board fitted into his chariot. Then when Claudius went for a chariot ride he could play his favorite game to pass the time.

Alea was also known as Tabula. Almost two thousand years ago, a writer named Saleius Bassus wrote a poem about Tabula which begins:

When wearied in the studious hours,
And yet you would not idle be,
The Tabula invites you still
The sly latrunculi to move.

The word latrunculi means “soldiers.” Bassus wrote the poem to explain how to play Tabula. Perhaps it was his favorite game.

Early forms of Backgammon were well known by the Middle Ages in Europe. Fifteen different versions of the game were described in a 13th century Spanish book on games. When King Alfonso X wanted to share Spain’s knowledge about certain subjects he commissioned a series of books. There were books about law, history, magic, and other popular subjects of the time. A book about board games called Libro de Juegos or The Book of Games was published in 1283. The text was handwritten and lavishly illustrated. The book describes how to play games like Chess, row games, Backgammon, and a hunt game called Cercar de Liebre.

Illustration from the Alfonso X manuscript

Backgammon was played in Korea too. The wooden playing pieces were called mal or “horses.” Mal were about three inches tall. Each player had 15
mal. One player had a set of red pieces and the other player had a set of natural wood color pieces. Moves were determined by tossing two dice. To decide who went first, players tossed one die. The player with the highest number went first.

Backgammon game board and mal from Korea

In 1674, Charles Cotton published a book called *The Compleat Gamester*. He described how to play card games, billiards, chess, and tables games such as Backgammon and Irish. Cotton says, “The person that is cunning at play has great advantage of a novice or innocent man…”

This advice suggests that to do well at Backgammon a person had to practice a lot. Many current books explain how to play Backgammon. The rules come with the game.

Not all race games have a straight track like Senet or Backgammon. Some games have a track that looks like a circle or a cross or a cross within a circle. Nyout is a game with an obvious cross and circle track. It was invented in Korea sometime around the 3rd century AD. Two, three, or four players can play together. Usually there are twenty-nine holes or spaces on the board. The
playing pieces are called mal or "horses." They can be made of wood, stone, or paper.

If two people play, they each have four mal. If four people play, they each have two mal and work in teams of two. The tools of chance are sticks with one round side and one flat side. Or one white side and one black side. Sometimes the tools of chance are tossed through a ring made of straw. The ring is fastened to a stick that can be stuck in the ground. However, the sticks don’t need to be tossed through the ring. The circle at the top of the board is often marked with the Chinese character Chut which means "to go out."

In the oldest games, the center circle is marked with the name Hiang Yu. Legend says the twenty-eight marks on the game board represent soldiers. The center circle stands for General Hiang Yu. When Hiang Yu was defeated in battle by the Prince of Han, he was surrounded by twenty-eight soldiers. Yet Hiang Yu managed to escape from the Prince of Han.

Nyout board and pieces
How to play Nyout: Players take turns throwing the stick dice to see who
will go first. The highest score wins and that player begins the game. The
other players take turns in the order of their score, highest to lowest. The stick
dice score in the following way:

- 4 black sides up: Move 5 and take another turn
- 4 white sides up: Move 4 and take another turn
- 3 white sides up: Move 3
- 2 white sides up: Move 2
- 1 white side up: Move 1

If a stick lands in a standing up position, it counts as a black side. If a
player gets 4 black or white sides up the second dice toss is taken before any
moves are made. Players enter on the mark at the left of the exit at the top of
the game board and move in a counterclockwise direction.

If a horse lands on one of the holes where the circle and cross intersect, it
can take a shortcut along that line. If one player’s horse catches up to another
of his or her own horses, the player can hitch them together. Then the horses
move as a team or as if they were one piece.

If a player’s horse lands on a hole that is occupied by the other player’s
horse, the other player’s horse has been caught. Horses that are caught must
go back to the beginning mark and start over. If a player catches the other
player’s horse, the player gets an extra turn. If a player gets a 5 or 4 and a
second toss, the player may divide the move between two horses. A player
may move a partner’s pieces on a turn. If a player gets to take a shortcut, the
horses can travel to the center of the board and then take the other shortcut to the exit. If a horse lands on the bottom circle, it may travel directly to the exit. The winner is the first player or team to get all of the horses around the circle and out of the exit.

In early times in North America, Amerindians used nuts, bones, sticks, and other natural materials to make board games. Sometimes they laid stones on the ground in a circle or square to use as a game board. Other times game boards were carved in stone or marked on animal hides. The Amerindians used natural materials for playing pieces and tools of chance too. They made tools of chance from split canes, walnut shells, acorn caps, corn, shells, bones, brass, clay, animal teeth, and peach or plum stones.
Zohn Ahl was played on a game board made of forty stones placed in a circle on the ground. The stone circle had openings at the North, South, East, and West. The North and South openings stood for running rivers. The East and West openings stood for dry river beds. Each player had one playing piece called a runner. Several players could play in teams.

A large flat stone placed in the middle of the game board was called the ahl stone. Players tossed four stick dice on the stone to determine their moves. The stick dice had one flat side and one round side and they were marked. Three of them had red strips on the flat side and no stripes on the round side. One stick had a green stripe on the flat side and a star on the round side. Players also had four counters that were used during play. If certain things happened during the game, players had to give the other team a counter.
**How to play Zohn Ahl:** Play begins at the South River. Teams move in opposite directions. One team moves to the right or East. One team moves to the left or West. Players take turns tossing the stick dice and move according to stick dice throws. The stick dice counts are:

- 1 red side up: Move 1 space
- 2 red sides up: Move 2 spaces
- 3 plain sides up: Move 3 spaces
- 3 red sides up, 1 green stripe up: Move 6 spaces; take another turn
- 3 red sides up, 1 star up: Move 10 spaces; take another turn

Runners move between the stones on the game board. If a runner lands in the North River, the runner has to start the game over. The runner must give the other team one counter. If a runner falls into the East or West dry rivers, the team loses their next dice toss. It's like losing a turn.

If two runners land on the same space, the second runner to land on the space sends the first runner back to the start of the game. The first runner, the one who gets sent back to start, must give the second runner a counter. The first runner to finish the course and return to the start wins the lap. The other player's team must give the winning runner a counter. Runners don't need to have an exact count on the dice to go out. The game may have many laps so players may use their left over counters during the next lap. The game ends when one team holds all of the other team's counters.
During the 16th century, the game of Chaupur was the rage in India. When Emperor Akbar wanted to play, he did it in grand style with an enormous game board and live playing pieces. The courtyard outside the Emperor's palace contained a huge game board made of red and white marble. Emperor Akbar and his friends sat on a raised platform. From that vantage point they could watch the game unfold. Sixteen young slaves were dressed in traditional Chaupur playing piece colors. So four slaves wore red, four wore yellow, four wore green and four wore blue clothing. They moved along the board according to the toss of stick dice. The dice were marked 1 and 6 and 2 and 5 on opposite sides. The life sized version of Chaupur was so popular with the Emperor and his friends that he ordered a large game board built at each of his palaces.

Pachisi was also an Indian game. Both Chauper and Pachisi were played on a cross shaped board that is called a cruciform board. The main difference
between the games is that while Chaupur needs stick dice for tools of chance, Pachisi needs cowrie shells. When Pachisi arrived in England the game was changed. Instead of the traditional tools of chance, the English used a six sided die to direct moves.

One ancient game with a spiral track was the Snake game. The game was found in a tomb in Egypt. The game board looks like a coiled snake with many sections. The playing pieces look like lions. There were also six sets of marble like stones with the game. We can only guess how the game was played.

Another game with a spiral race track does have rules. The game comes from Sudan and it is called L'ib El Merafib or the Hyena Game. Both spotted and striped hyenas live in Sudan. They are carnivores so they eat meat. So any hyena would be a dangerous animal to meet on a trail.

The game board has circles or holes. Each hole stands for one day. The starting place is called the village and players must move from the village to the well in the center of the board. The playing pieces can be stones or other markers. In the first part of the game the pieces represent the player's Mother. Mother must follow the track from the village to the well, wash her clothes, and return to the village. The first Mother to get back to the village sets the second part of the game in motion. She lets a hyena loose. Now the playing piece that stood for the Mother becomes a hyena. The hyena travels to the well and takes a drink. On the way back to the village, the hyena can eat any Mother that gets in its way. Hyenas travel at double the speed of Mothers.
How to play Hyena game: You will need to make a game board. Dig holes in the earth, draw them on paper, or mark them with sidewalk chalk. The game board can be any size. Each player needs one playing piece. The tools of chance are three stick dice. One side is green and one side is white. You can use craft sticks with one side painted green.

The stick dice counts are:

1 white side up            Taba
2 white sides up           Move 2 spaces; the turn ends
3 white sides up           Move 3 spaces
3 green sides up           Move 6 spaces

When hyena comes into play, players double the score shown on the dice. Players need to keep track of their tabas. Make a mark in the earth with a stick or use a pencil and a piece of paper to keep track. You will need to use them during the game.
Players take turns tossing the stick dice. A player’s turn lasts until he or she throws the stick dice and gets two white sides up. Then the player moves two more spaces and the turn ends.

A player must throw a taba or 1 white side up to begin the game. After the player gets that taba, the Mother may leave the village and move 2, 3, 6 or more spaces. The Mother doesn’t get to move when a player throws the next tabas. Players keep track of these. The extra taba are called a store and they are used later in the game.

Mothers may share the same hole. They must reach the well by exact count. If a Mother falls short of the well, she can use taba from her store to make up the difference. One taba equals one day. When a taba is used it is crossed off and can’t be used again.

Once a Mother is at the well, she must spend two taba to wash her clothes and two taba to begin her journey home. If a player doesn’t have enough taba, Mother must stay at the well until she has enough taba to continue. However, the player marks all throws of the stick dice—taba, 2, 3, or 6 on the score sheet to use later. After the player has enough taba, the Mother may go back to the village.

The first Mother to reach the village lets the hyena loose. The Mother piece doesn’t exist as Mother any more. The piece becomes the hyena. The hyena may use the player’s store to travel. It can leave the village after it pays two taba. Each toss of the dice means a double score for the hyena. For example, if a players rolls a 3, the hyena may move 6.
When the hyena reaches the well, it must pay 10 taba for a drink of water. After the hyena has a drink, it starts back to the village. If it passes a Mother, the Mother is eaten. However, hyenas can’t eat Mothers until after they have paid the taba and taken a drink. The player who becomes a hyena and gets back to the village first wins. Often the other players will play for position.

The Game of Goose is also a spiral race game. The game board looks much like the Egyptian Snake Game or the Hyena Game boards. Most stories say the game was invented in the 16th century AD. Francisco I de Medici sent a copy of the game to Phillip II of Spain as a gift.
The game has an illustrated game board. Each of the 63 spaces on the board has a number or special picture on the space. Many spaces contain a picture of a goose, so probably that is how the game got its name. Landing on a goose means the player gets to repeat the move until the playing piece no longer lands on a goose. The other pictures mean something too. For example, space 6 has a picture of a bridge. If a player lands on the bridge, the player crosses it and goes to space 12. Space 58 has a skull on it. If a playing piece lands on the skull, it dies and must go back to start and begin the game again.

Illustration of a handmade Snakes and Ladders board. Used with permission of the Elliott Avedon Museum and Archive of Games at the University of Waterloo.

Snakes and Ladders, a game from India, has a different pattern on the game board. Most square shaped game boards have 100 squares. Some squares are connected by a snake with its head on one square and its tail on
another. Other squares are connected by a ladder whose top is on one square and whose bottom is on another. There can be any number of snakes or ladders on the game board.

Snakes and Ladders was a teaching tool used to help players understand the difference between good and evil. The lower squares stood for vices or things people should not do. The higher the players went on the track without being eaten by a snake, the more spiritually developed they became. The 100th square represented Nirvana or enlightenment.

Most boards were painted on paper or cloth. When the British brought the game to England in the 19th century, they changed the original idea of the game. It was no longer a teaching tool, but a game for children to play. There were still snakes and ladders on the board, but they did not have the same meaning they had in the original Indian game. They were just illustrations on the board that were meant to explain why players had good or bad luck. In the United States the game was called Chutes and Ladders.

**How to play Snakes and Ladders:** Each player has one playing piece. Moves are determined by tossing dice. Usually there is one die, but players may choose to use two dice. Then if a player gets doubles, he or she gets another turn. If a playing piece lands on a snake’s head, it is eaten and must move down to the square marked by the snake’s tail. If a piece lands on a square that is the bottom of a ladder, the piece climbs up the ladder to the top. The games ends when a player reaches square 100 by exact count. If the dice throw is too large, the player moves the piece to square 100 and then
begins to move backward to the full amount of the dice roll. So a player could be on square 99 and roll a 3. Then the player must move to square 100 and count back 2 squares. The first player to go out by exact count wins the game.

Race games like Snakes and Ladders and the Game of Goose had themes. Now many race games use themes to explain why players are supposed to want to race around the board. These themes help players get involved in the game right away. Race games with themes come and go but you can learn about your country's history by studying old board games. You can find out things like: what books people read, what radio and television shows they liked, what clothing people wore, what events were taking place around the world, what colors and design appealed to people, and so on.

In the United States, some games that are still popular today changed with the times. Sometimes the illustrations on the box and board changed over time. An early game of Clue might have a black and white game board. A current game of Clue might have illustrations of colorful rooms. Even though some games, like Clue, do pass the test of time, most race game characters and game boards reflect the look of their generation.

Early in the 20th century, characters from books, like Uncle Wiggily and Sherlock Holmes, inspired board game makers. World events, like reaching the North and South Poles, and World Expositions became game themes. So did cartoon characters and characters from popular radio and television shows.
In row games, players try to line up a row or rows of pieces. Sound simple? Sometimes it is and sometimes it isn’t. In some row games, playing pieces may be placed on the game board as the game unfolds. Often the goal of a simple game is to make a row of three pieces. In other games, after the players have made three in a row, they begin to capture the other player’s pieces. Still other row games begin with the pieces arranged on the board before the game begins.

In ancient times, game boards were carved in stone. There are examples on roofs in Kurna, Egypt. Later, during the Middle Ages, row game boards were carved on seats in cathedrals in England. Then whenever people got bored, they could play a quick game.
Row games are easy to make. Just draw the game board lines on the ground or a piece of paper. Anything can serve as playing pieces. You can find sticks, pebbles, coins, or marbles.

Row games are called mill games in Europe. In England they are called Morris games. When a number is used along with the word Morris, the number stands for how many playing pieces each player has in the game. So in Three Men's Morris, each player has three playing pieces. In Twelve Men's Morris, each player has twelve.

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Game boards for 9 holes and Noughts and Crosses

An early row game from England was called 9 Holes. The board had nine holes. Players used pegs or anything handy for playing pieces. They took turns placing their pieces on the board. The goal of the game was to make three in a row first. The game is like Tic Tac Toe or Noughts and Crosses except that the board has holes rather than lines.

Noughts and Crosses is another easy game to make. You can scratch the board anywhere and use anything for playing pieces. Or you can draw the game board on a piece of paper and mark X's and O's on it. Players take turns marking the squares on the board. One player draws only X's and the other player draws only O's. The first player to make three in a row wins. In
England when children made three in a row, they said, “Tit tat toe, Here I go, Three jolly butcher boys, All in a row.”

Three Men’s Morris game boards were carved on cathedral seats too. While young shepherds watched their sheep, they played the game. All they needed to do was draw a board on the ground and find some pebbles for playing pieces. The same game board is used to play Luk Tsut Ki in China, Tant Fant in India, and Epelle in Nigeria.

How to play Three Men’s Morris: Each player has three playing pieces. Players take turns entering their playing pieces along the places where the lines connect. They try to be the first to make three in a row. If all of the pieces have been entered, and neither player has scored three in a row, the pieces can be moved one step along any line to an empty neighboring point. The first player to make three in a row wins.

Tant Fant and Epelle have slightly different rules. The playing pieces are arranged before the game begins. Look at the illustration of the game board above. Then place the three black pieces in a vertical row on the left side of the game board. Place the three white pieces in a vertical row on the right side of the game board. Players take turns moving the playing pieces to any
empty neighboring point. Each player tries to be the first to make a row of three on any other line.

Not all game boards are so small. Larger boards accommodate more playing pieces. Akidada, a game from Nigeria, is played on a larger game board with more pieces.

How to play Akidada: Each player has nine playing pieces. Players take turns entering their playing pieces on the game board above. They may either make a row of three along any vertical or horizontal line or try to block the other player's playing pieces so they can't move. Each time a player makes a row of three, the player may remove one of the other player's playing pieces. After all nine pieces have been placed on the board, they may be moved one step along a line to the next empty neighboring point. There are two ways to win the game. A player can either block all of the other player's playing pieces or take so many pieces the other player can no longer make any row.

Shax is played on the same board. Only men play Shax, a popular game in Somalia. A Shax game board is easy to make. Often holes are marked in the ground or on any handy piece of paper or cardboard. Players can use anything for playing pieces. In Somalia the men use bits of broken glass,
stones, or shells. Rick Davies, a Social Development Consultant from the United Kingdom, recorded these rules for Shax.

How to play Shax: The game board is the same as the Akidada board. However, each player needs twelve playing pieces to play Shax. The game has two stages. In stage one, players take turns placing playing pieces on the board. There are twenty-four possible places for pieces. Any corner or place where two lines meet can be used. Each player tries to be the first one to get three in a row. A three in a row is called a jare. Being first to score a jare is important for the next part of the game.

After all of the pieces have been placed the game moves into the second stage. In this stage, the first player to make a jare can remove one of the other player's pieces. It can be any piece, from anywhere on the game board. Then the second player gets to do the same thing. The player chooses one of the other player's pieces and removes it. If neither player scored a jare in the first part of the game, the player who started second begins the second stage by taking one of the other player's pieces.

After each player has removed one piece, the game continues. The players try to make new jare. Whenever a player makes a jare, the player
may remove one of the other player's pieces from the board. If one player blocks the other player's pieces so he or she can't make any move, the player says, "Give me a way without a jare."

The player who blocked all moves must then take one of his or her own pieces off the board so the other player may make a move. The player who took the piece off the board does not get to score a jare or remove one of the other player's pieces. The game is over when one player has taken all but two pieces from the other player. Two pieces are not enough to make a jare.

Children learn to play a simple version of Shax caller Jar. The board has only 4 squares and the winner is the first player to make a jare.

Another game played on a slightly different game board is very popular in Africa and Asia. The game is called Morabaraba. It is recognized by the International Wargames Federation as a Traditional World Game, so it is tournament game. The 4th International Individual World Championships were held in 2001. In many places, people join Morabaraba clubs to learn to play and compete with other players.

How to play Morabaraba: Use the game board shown above. The board has 24 places to put pieces. These places could be called holes since the
board often is scratched in the dirt, but you can draw a board on paper very quickly. Each player has twelve playing pieces which are called cows. Morabaraba is a three stage game.

In the first stage of the game, players take turns placing their cows on the board. They try to make a row of three cows. If a player makes three-in-a-row, the player may remove or "shoot" one of the other player's cows. Players can't "shoot" the other player's three-in-a-row cows unless there are no other cows on the board left to "shoot." Dead cows can't come back to life. They are out of the game.

When all of the cows have been placed on the board, stage two begins. The cows may be moved to other empty neighboring holes. They can only move one space. Any three-in-a-row cows can be moved around to create new three-in-a-row groupings. Each time a player makes a new three-in-a-row, the player may "shoot" one of the other player's cows.

Stage three begins when a player has only three cows left on the board. The player may then move cows to any empty hole on the game board. The players still try to make three-in-a-row. The game is over when one player can't move any cows or when one player has only two cows left on the board. The game is called a draw if each player has only three cows or neither player has "shot" a cow after ten more moves.
Not all row games are three-in-a-row games. Mu Torere is a game from New Zealand. The game board looks like a star. The center point on the game board is called the putahi. The points are called kawai. Playing pieces are placed on the board before the game begins. The goal of the game is to block all of the other player's playing pieces so they cannot move.

How to play Mu Torere: Place the playing pieces on the game board as shown in the diagram above. Players take turns moving their pieces. Only one
piece can be on any kawai or in the putahi at a time. There is no jumping.

There are three possible ways to move playing pieces. A piece may be moved from one kawai to an empty neighboring kawai. A piece may move from a kawai to the putahi if one or both of the kawai next to it are occupied by the other player's pieces. Or a piece may move from the putahi to a kawai. The game is over when one player blocks all of the other player's pieces so they can't move anywhere on the board.

Pong Hau Ki is another row game with an unusual game board. The game came from China, but it is played in Korea and Thailand, too. You only need four playing pieces. The goal of the game is to block all of the other player's pieces so they can't move.

How to play Pong Hau Ki: Place the playing pieces on the game board as shown in the diagram above. There are only five places for pieces on the board. They may move to any of the four corners or they may move to the middle of the board. Players take turns moving pieces along any line to the next point. The point must be empty. There are no captures and there is no jumping. When one player can't make any moves, the game is over.
A hunting we will go, a hunting we will go...

Traditional song

The chase is on. The hunters search for the prey, spot it, and close in one step at a time. The prey dodges this way and that. Will it strike back? Of course, because the prey wants to win the contest, too. Hunt games imitate a hunt. They are games for two players. One player has many playing pieces. The other player has one or a few. Often the large group stands for a party of hunters. The smaller group represents tough deadly prey. Each player tries to do something different to win the game. The player with many pieces tries to surround or block the other player’s pieces. The player with a few pieces may capture the other player’s pieces and remove them from the board. Often both hunters and prey are animals. Typical animal hunters are wolves, tigers, geese, or men. The prey may be sheep, leopards, tigers, a fox, or even a man.

Sometimes the large group of pieces stands for a group of soldiers and a single piece stands for a general. One of these games is Juroku Musashi, or Sixteen Soldiers, a game from Japan. One player has the soldiers or musashi. The other player has the general or taisho. The general tries to
capture the soldiers and remove them from play. The soldiers try to hem in the general so he can't move.

How to play Juroku Musashi: The playing pieces are arranged on the board before the game begins. All of the pieces can move one step along the lines to an empty neighboring point. The soldiers can move anywhere except into the triangle. Only the general can enter the triangle. The general may capture soldiers by leaping over them. The soldiers can't capture the general. They try to trap the general so he can't move. If the general is trapped in the triangle, he loses. The general wins if he takes all of the soldiers. The soldiers win if the general can't move or if he is trapped in the triangle.
Cercar de Liebre, or Catch the Hare, was described in *Libro de Juegos*. The game was played in 13\textsuperscript{th} century Spain. The game board is called a quadruple mill board. That means four small mill boards like the ones used to play Three Men's Morris are put them together to form a larger board.

How to play **Cercar de Liebre**: The playing pieces are a group of hunters and a single hare. Arrange the hunters and the hare as shown on the game board. All the playing pieces move one step along any line and in any direction to an empty neighboring point. Only the hare can capture pieces. It captures hunters by leaping over them. The hare can take multiple leaps, so it can capture more than one hunter at a time. The captured hunters are removed from play and may not return. The hunters try to trap the hare so it can't move or take any more hunters. The game is over when a hare takes so many hunters that it can't be trapped or if the hunters trap the hare so it can't move.

The Amerindians in North America played a similar game called Coyote and Chickens. The coyote playing piece was a bean and the chicken playing pieces were pieces of corn.
Hala-tafl, or The Fox Game, was a hunt game played in Iceland in the fourteenth century. The word tafl means "board" in Scandinavian countries. The Fox game was mentioned in Grettir's Saga, the story of Grettir the Strong. The story was one of several Icelandic sagas written around 1300 AD. In the saga, the thirteen white geese try to "stiffle the black fox before it eats them by jumping over them."

Fox and Geese is probably a similar game. In the earliest games, one player had thirteen geese and the other player had one fox. The fox was placed in the middle of the game board. The fox could capture geese and remove them from play. The geese tried to hem in the fox so it couldn't move.

The game evolved over time. Depending on where the game was played, one player could have thirteen geese or seventeen geese. The other player had one fox. This game can be played on a Fox and Geese board or on a Chess board.

How to play Fox and Geese: Place the playing pieces on the game board as shown above. Players take turns moving their pieces. Both the fox and geese may move along a line to the next empty neighboring point. If the fox
jumps over a goose, the goose is captured and removed from the board. The fox can kill more than one goose at a time by making a series of jumps over several pieces in one move. The geese can’t jump over the fox. They try to crowd the fox into a corner so it can’t move. The player with the fox wins the game if the fox kills so many geese that the ones left over can no longer crowd it into a corner. The player with the geese wins if the fox can’t move.

Amerindians played a hunt game on the same game board. The playing pieces were placed on the board. One large piece stood in the center of the board. Many smaller playing pieces were placed around it. The rules were probably like the rules for Fox and Geese.

Amerindian game board

When Norse sailors traveled to other countries they took their favorite board games along. Hnefatafl was played all over Scandinavia before 400 AD. Each player had an army of soldiers. One player had a small army headed by a king or hnefi. The other player had a much larger army and no king. The player who controlled the king had to protect him because if the king was captured the game was over.
Pieces of Hnefatafl games have been discovered in Norse grave mounds. The Vikings buried their dead kings with their personal goods. When a Viking burial ship was discovered in Gokstad, Norway in 1880, a game board was among the personal goods. One side of board was a large mill game, probably Twelve Men's Morris, and the other side was a Hnefatafl board. The game boards were made of wood. Playing pieces made of amber, bone, and glass have been found in grave mounds too.

One 12th century crusader, the Earl of Rogenwald, listed the things he could do well. “I am strong at tafli play…” topped his list. That meant he was good at playing board games.

An Icelandic saga called Herverar Saga tells a story about a riddle contest between King Heidrek and the god Odin. During the contest, Odin wore a disguise. One of the riddles asked, “Who are the maids that fight weaponless around their Lord, the brown ever sheltering and the fair ever attacking him?” The answer was, “Hnefatafl pieces.”

Welsh writers wrote about board games, too. Some of the early stories and legends were collected in the Red Book of Hergest. When Lady Charlotte Guest translated the same stories in 1849, she called the collection, the Mabinogion.

One of the stories Lady Guest translated is called, “Peredur, the Son of Evawe”. Even though the game in the story is called Chess, it is actually a Welsh game called Gwyddwyll. In the story, Peredur found the Castle of Wonders in the middle of the lake. The castle door was open, so Peredur
walked in. When he went inside "...he beheld a chess board in the hall, and the chessmen were playing against each other by themselves. And the side that he favored lost the game and thereupon the others set up a shout, as though they had been living men." Peredur threw the game board into the lake and that act led to his next adventure.

Illustration of a manuscript describing Hnefatafl
Tablut was a board game from Lapland. When a botanist named Linnaeus visited Lapland in 1732, he was doing field work on plants and animals in the area. But he also noticed people playing a board game called Tablut and described it in his diary. Linnaeus later became famous for his system of classification of plants and animals.

Some hunt games in Asian countries were played on triangle shaped game boards. Len Choa, a leopard game from Thailand, was one of those.

![Len Choa game board](image)

**How to play Len Choa:** One player has six leopard playing pieces. The other player has one tiger piece. Players take turns. The tiger may begin from any point on the board. The leopard pieces are placed on the board at any point the player chooses, one at a time. The tiger playing piece may move around, but all of the leopard pieces must be placed on the board before they may begin to move to new points.

All playing pieces move one step along the marked lines. The tiger can capture a leopard by jumping over it to reach the next empty point. The
leopards can’t capture the tiger. They must trap the tiger so it can’t make any moves or leaps. The player with the tiger wins if it takes so many leopards that the ones who are left can no longer trap the tiger. The player with the leopards wins if they trap the tiger.
CHAPTER 6
WAR GAMES

The time of the rains played its game with frogs for chessmen, which yellow and green in colour, as if mottled with lac, leapt up on the black field squares.

Subhandu, Vasavedatta

Hard it is to deal with he who will stuff himself with food the whole day without applying his mind to anything good! Are there not gamesters and chess players? To be one of these is better than doing nothing at all.

Confucius, Analects

No mud. No blood. No bombs bursting overhead. Just the board, the playing pieces, and two commanders who want to win. War games represent different things people do in wars. Board games can be battle games like Chess, or they can be games where players try to take charge of most of the territory like Go. War games are often called strategy games because players must think about strategies that will help them to win.

The game we know as Go is a very old game. The game was invented in China where it is called Weiqi. In Korea it is known as Patok. In Japan the formal name I-go is usually shortened to Go. Go is a game for two players and it is played on a special board that is divided into many small squares.
Usually there are 361 points on the game board. The board can be made of wood or printed on paper. Usually the playing pieces are white and black stones. Each player has over 100 stones that look like polished pebbles or fat buttons.

The player with black stones moves first. The players take turns placing the stones on points where the lines intersect on the game board. The goal of the game is to create a string of stones that will encircle the other player’s stones. The winner is the player who controls the most of the territory on the board.

Old Chinese books about Go usually divide the game board into four equal corners which are called ping (lower left), sheung (upper left), hu (upper right), and yap (lower right). One early description of the game says, "The players place their men alternately on any of the points of intersections of the horizontal and vertical lines not already occupied. The object of the game being to occupy as much of the board as possible, victory being decided in favor of the player who has command of most spots."
Different legends tell different stories about how the game was first invented. One legend says Emperor Yao invented Weiqi and taught his son to play in 2356 BC. Another legend says Emperor Shun invented Weiqi and taught it to his son, Shang Kiun, in 2255 BC. In any case, the game is quite old. Confucius said he didn’t think games like Weiqi had any benefits for players. But players thought differently. The game spread to other countries. Tradition says Lord Kibi introduced Weiqi to Japan in the eighth century. Soon the game became known as Go. One story says that during the Tang dynasty (AD 847-860) Japan sent tribute to China. Part of the tribute was said to be Go stones made of gems.

During the 12th century members of the Japanese military began to study Go to learn strategies for war. Since Go was a strategy game, the military thought it would help soldiers plan for war. Soldiers learned how to play and the game was part of a soldier’s kit.

In Japan, players may gain rank as they become more expert in the game. It is the same as working your way up to Grand Master in Chess. There are nine levels or grades of rank for Go players. These are called dan. Sho-dan is the lowest level or grade one. Kyo-dan is the highest level or grade nine.

An early form of Chess was invented in India when a game inventor borrowed the board of a race game called Ashtapada and added different playing pieces. The new war game was known as Chaturanga. It was a two player game. Each player commanded two armies and each army was a different color—red, green, black, and yellow. The playing pieces represented
the Indian armies of the time. They were the Rajah, the horse which stood for

cavalry, the ship which stood for sailors, elephants, and foot soldiers.

Ardashir was a ruler in Persia. His story is told in the *Karnamik-I-Ardashir*
or the *Records of Ardashir*. The records say, “By the help of Providence, he
became more victorious and warlike than all, on the polo and riding ground, at
Chatrang and in several of the other arts.” Part of the role of a ruler was to be
good at war games.

Some people gambled on how well they could play Chaturanga. Stories tell
of Kings who lost their estates, their kingdoms, and even their families
because they gambled and lost. The story of King Yudhishthira and Queen
Droupudee was one of those stories. The King liked to play dice games and
he started to gamble. Unfortunately, he was unlucky. During one losing
streak, he lost everything—his kingdom, his wealth, and even his wife—to his
opponent. But Queen Droupudee was clever and managed to have her
husband's kingdom restored. King Yudhishthira was still in a gambling mood so he decided he might have better luck with Chaturanga. But just in case luck alone didn't work, the King decided to take lessons. He went to a Chaturanga master and asked the master for lessons. Vyasa, the master, tells the King how to play Chaturanga in a poem. Unfortunately, the King lost at Chaturanga too. King Yudhishthira and Queen Droupudee were forced to flee.

Chaturanga traveled from India to Persia sometime during the reign of Shah Nushirvan in the 6th century AD. The story of how Chaturanga traveled from India to Persia was told first in the *Chatrang namak*. During the 11th century, the poet Ferdousi, told the same story in a long poem called *Shahnama* or *The Book of Kings*.

Ferdousi says Chaturanga arrived in Persia with tribute from the Rajah of India. The Rajah sent a thousand camels loaded with silver, gold, jade, amber, and jeweled parasols. There was also the gift of a board game. But the game came with a challenge. Figure out how to play the game or send tribute to India. If the Shah figured out how to play, the Rajah would send tribute.

The Shah and his advisers studied the game for a week and they were stumped. But an advisor named Buzurjmir kept trying to find a solution. Finally he figured it out and played a game of Chaturanga with the Rajah’s envoys. Buzurjmir's answer was right and the Rajah sent tribute.
Later, Buzurjmir invented Nard, a race game that was an early form of backgammon. The Shah challenged the Rajah to figure out how to play Nard or pay tribute. The Rajah found the challenge too difficult, so he sent tribute.

In Persia, Chaturanga was called Chatrang. The game pieces got new names that reflected Persian military thinking. The rajah was called a shah or king. Other playing pieces were the farzin or counselor, elephants, horses, chariots, and foot soldiers. Gone were the four armies. The two armies were placed on the board so that they faced each other as armies do in Chess.

In Arabia, Chatrang was called Shatranj. In the 10th century AD, a Chess master named Abu-Bakr Muhammad ben Yahya As-Suli wrote an early book about Chess. Kitab Ash-Shatranj or The Book of Chess was written while As-Suli was Chess master at the court of the Caliph of Baghdad. He was such a good player, people used his name as a compliment for other good players. They said, "He plays Chess like As-Suli."

During the Middle Ages in Europe Shatranj was known as Chess. The playing pieces were also renamed to reflect European thinking about war and armies. Each player had a king, a queen, two bishops, two knights, two rooks, and eight pawns.

Modern Chess playing pieces
In 1474, William Caxton translated *The Game and Playe of the Chess*, a 13th century manuscript. The book explained how chess was played in the Middle Ages. Chess continued to evolve until about 600 years ago. Then the rules were revised and the game as we know it was born.

Illustration from Caxton's *Game and Playe of the Chess*

One lucky day in 1888, several sets of Chess playing pieces were found in a sand bank off the island of Lewis near Scotland. The large walrus ivory playing pieces were probably carved by Norsemen in the 12th century. Now the collection is called the Lewis Chess men and they are on display in England and Scotland.
Examples of Lewis Chess men

Before there was Checkers, there was Draughts. Both games were played on a Chess board. But even before Draughts, there was Alquerque. Game boards that look like Alquerque boards were carved in stone in Kurna, Egypt over 3000 years ago. The game was mentioned in an Arabic book called Kitab-al Aghani, which was written in 976 AD. It was called Quirkat. But by the time it was mentioned in Libro de Juegos in 13th century Spain, the game was known as Alquerque.
Alquerque was played on a quadruple mill board. Each player had twelve playing pieces. The pieces were arranged on the board before the game began. Pieces could move along any line to an empty neighboring point. Players could jump over pieces and capture them. There could be multiple leaps. The goal of the game was to take all the pieces. But the game could also end if one player couldn't make any moves.

A similar game, played in North America by the Amerindians was called Kolowis Awithlaknanni or Fighting Serpents. Even though the game board looks different, the rules are the same as Alquerque rules.
How to play Kolowis Awithlaknanni: The game board can be any size. Each player should have the same number of playing pieces. They can be light and dark stones. Place the playing pieces on every spot where the lines meet or intersect, except the center spot.

Players take turns. Decide who will go first. The first move is always to the center spot. Then the other player takes a turn, jumps a piece, and takes it off the board. Pieces can jump over more than one piece at a time. If a player can’t jump over another piece, the player moves to the next spot where the lines meet or intersect. Players try to capture all of the other player’s pieces. The game is over when one player has lost all pieces.

In Europe, Draughts became more popular than Alquerque in the Middle Ages. The 12th century inventor took a chess board, pieces that may have come from a game like Backgammon, and the method of capture from Alquerque to create a new game. There are many different games in the draughts family. Each has its own rules and variations.

Theophilus Lucas wrote a book about famous game players in the 18th century. He collected biographies and published them in Lives of the Gamesters. Lucas told stories about different games and the people who played them.

One of the stories was about Jonathan Laud. Laud was a gambler who made his living in gaming houses where people gambled over games like dice, but he also studied Draughts. Laud was so good at playing Draughts that
Lucas says, "At length he became an excellent player at Draughts, at which he had ruin'd several tradesmen in and about London...and won many hundreds of pounds." But after other gamesters heard about Lund's reputation for winning, no one would play with him. Laud was forced to find another gambling game.

In North America, Draughts became known as Checkers. Even though the game is played on a Chess board, the playing pieces look different. They are flat and round and each player has twelve. Often the pieces are black and red. Black always begins the game. The pieces move diagonally on the squares and can only move forward. That is, unless a piece makes it to the other side of the board. Then the piece is crowned and can move in any direction. A player can jump the other player's pieces and capture them. More than one piece can be captured at a time. The goal of the game is to take all the pieces, but it can be won if the other player can't move.

The Jungle Game came from China and the rules were recorded by R. C. Bell. The game probably isn't old. It's like Checkers with a twist. The twist is that the game board looks a little like a map and the playing pieces represent animals. Each player has eight pieces. One has red, the other blue. Each piece represents a different animal and each animal has a number that represents is strength when it's pitted against another animal. The goal of the game is to place any animal in the other player's den.
How to play Jungle Game: Place the playing pieces on the board as shown in the diagram. The names and strength numbers of each animal are:

<table>
<thead>
<tr>
<th>Name:</th>
<th>Strength number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elephant</td>
<td>8</td>
</tr>
<tr>
<td>Lion</td>
<td>7</td>
</tr>
<tr>
<td>Tiger</td>
<td>6</td>
</tr>
<tr>
<td>Panther</td>
<td>5</td>
</tr>
<tr>
<td>Dog</td>
<td>4</td>
</tr>
<tr>
<td>Wolf</td>
<td>3</td>
</tr>
<tr>
<td>Cat</td>
<td>2</td>
</tr>
<tr>
<td>Rat</td>
<td>1</td>
</tr>
<tr>
<td>Trapped animal</td>
<td>0</td>
</tr>
</tbody>
</table>
Players take turns. Playing pieces can move one square in any direction. Only one piece can be on a square at one time. Only the rat may enter the water squares (the shaded squares near the center of the board). Any numbered animal can eat an animal with a smaller number by simply moving onto the smaller animal’s square. For example, if an elephant moves onto the square occupied by a tiger, the elephant eats the tiger. If two animals are the same type, the animal that moves onto the square eats the other animal. For example, if lion 1 moves onto lion 2’s square, lion 2 is eaten. There is one exception. The rat can kill an elephant by running into the elephant’s ear and gnawing its brain.

Some animals have other special powers. When the rat reaches the river or water, it can jump in. Then the rat can move on the water squares. If the rat is in the water, no animal can attack it because the other animals can’t move onto the water squares. However the rat can’t attack an elephant from a water square. If two rats meet in the water, the moving rat eats the other rat.

Lions and tigers have special powers, too. If a lion or tiger reaches the river or water, they can jump over the water and land on the nearest land square. If a smaller animal is on that square, the lion or tiger eats it. If the rat is in the water, the lion or tiger can’t jump over the water.

There are also three trap squares on each player’s side of the board. Animals on either side can move into the trap squares and leave them
whenever they want to. If a player's pieces move onto trap squares on his or her side of the board, the playing piece doesn't lose its strength or power. But if a playing piece is on one of the other player's trap squares, the piece is weaker than the rat and so it loses all of its strength and power. As soon as the piece leaves the trap square, it gets back its strength. Players can't move any animal into the den on their own side of the board. However, if a player moves any animal into the other player's den, the game is over.
Mancala is a game of perfect information, perfect equality, much freedom of significant choice, and hence great skill.

David Partlett, The Oxford History of Board Games

By the time the fool has learned the game, the players have dispersed.

Ashanti proverb, Ghana

Mancala games are actually a large family of games with many different names. So a game could be known as Oware in one place and Wari in another. But all the games have similar goals and methods of play. The details of the rules may vary from place to place, but all Mancala games involve counting and capturing playing pieces. They look simple, but most are not. Players must use math and strategy skills to win.

The word Mancala comes from an Arabic word, nagala, which means “to move”. Stewart Culin called Mancala, “the national game of Africa” and this is probably true. Mancala games are played all over Africa.
Most of what we know so far about the games comes from artifacts. For example, game boards that look like Mancala cups were carved on roof slabs in temples in ancient Egypt. There is not a lot of written evidence about Mancala games. Most early observers merely noted that they saw a game in progress. One of the earliest reports of Mancala came from John Jobson, who traveled through Africa in 1623. He wrote a book about his travels called *The Golden Trade*. Jobson wrote:

> In the heat of the day, the men will come forth, and sit themselves in companies, under the shady trees, to receive the fresh aire, and there passe the time in communication, having only one kind of game to recreate themselves withall, and that is in a piece of wood, certain great holes cut, which they set upon the ground betwix two of them, and with a great number of some thirtie pibble stones, after a manner of counting, they take one from the other, untill one is possessed of all, whereat some of them are wondrous nimble...

In Africa, playing Mancala games is a social activity. Many times a crowd gathers to watch a game in progress. Even though the game is played quickly, the players chat with the crowd and each other. In many countries men and women don't play together. Men play Mancala games with men, women with women, and children play only with other children.

Mancala games were also popular in Indonesia, Pakistan, India, Sri Lanka, and countries in the Middle East. A set of Mancala holes, dating from the 2nd century BC, was found in a cave in Sri Lanka.
A traveler named Jean Thevenot visited the Middle East in the 17\textsuperscript{th} century. He described a Mancala game he had seen in his book, \textit{Voyages}. Thevenot wrote about the game board and playing pieces in this passage:

They play Mancala very frequently, which is made in the shape of a box about two feet long and half a foot wide, with six small holes in the box itself and six in the lid which is hinged to the box (for it opens like a chessboard). Each player has 36 shells, 6 of which are placed in each hole at the beginning of the game.

\begin{center}
\includegraphics[width=0.4\textwidth]{mancala_statue.jpg}
\end{center}

Statue of Mancala players. Reproduced with permission of the Elliott Avedon Museum and Archive of Games of the University of Waterloo.

In most Mancala games players sit across from each other. Often they use a game board made of wood, but in a pinch they may dig holes in the earth. The game board may have 2, 3, or 4 rows of cup shaped holes. Usually in two row games there are 6 holes on each side of the board, but there may be more or less. The holes must be large enough to hold a few playing pieces.

No matter what board players use, each player usually "owns" one side of the game board. The playing pieces are arranged before the game begins.
The playing pieces are identical for both players. They can be beans, seeds, small pebbles, or anything handy. Moving around the board is called a lap. A lap begins when a player lifts beans out of one hole and places them one by one into the next few holes. Placing the beans is called sowing. In some games there are two larger holes at either end of the board. These are called stores. Usually players put captured beans in their own store. In some games players may sow beans in their own store on their laps around the board. They don’t sow beans in the other player’s store.

Meusueb is a game from Sumatra, an island that is part of Indonesia. Usually women and children play this game. It is one of the easier games to learn.

How to play Meusueb: Use the board in the illustration. It is called a 2x6 board. Place four beans in each hole, but do not place any beans in the holes at either end. Those holes are the stores. Usually there are several laps for each turn. Play moves in a counterclockwise direction.

A player may begin the move from any hole on his or her side of the board. The player begins by lifting the beans out of the hole and sowing
them, one by one, into the next few holes. If the last bean falls into an empty hole, the lap or turn ends. If the bean falls into a hole with beans in it the player lifts those beans out and sows them. The lap continues until the last bean falls into an empty hole. Then the other player takes a turn.

If both players don't have enough beans left to play, each player takes one more turn. The player moves the beans, then takes the leftover beans, puts them in his or her store, and counts them. The winner is the player with the most beans in his or her store.

Ot-tjin or the Fish game is from the island of Borneo. The Indonesians own two thirds of the island. The Indonesian part is called Kalimantan. The rest of the island is shared by Malaysia and the country of Brunei.

The game board has two rows of holes with ten holes in each row. There is a store at either end of the board. You will need to collect 60 beans.
**How to play Ot-tjin:** Place three beans in each hole. Play moves in a counterclockwise direction. The first player lifts all of the beans from one hole and sows them, one by one, in the next few holes. A turn is done when the player reaches an empty hole.

If a player is done sowing on the other player's side of the board and there are three beans (two plus the one the player sowed) in the hole, the player captures all of the beans. The turn is over.

The game is over when a player doesn't have any more beans on his or her side of the board. The other player keeps the beans on his or her side. The winner is the player who captured the most beans.

Ipere is a game from West Africa. This is a children's game that must be played in the daylight. If the game is played after sunset, superstition says that the player's mothers will die if the players don't swallow a white pebble. Perhaps this was a way to make sure children went to bed.
How to play *I pere*: Use a game board with two rows of holes and six holes in a row. The board should have a store at either end. Put four beans in each hole. Don't put any beans in the store. Move in a counterclockwise direction. Each player tries to get the most beans in his or her store. The winner has the most beans at the end of the game.

Play may begin from any hole except the store. Lift and sow the beans as usual. If the last bean falls into a hole and the number of beans in the hole is two or three, the player takes the beans and puts them in his or her store. When a player has thirteen beans in the store, the player lifts them and sows them as usual. No beans are sowed in the store. A player can take the beans from the other player's holes if the holes only contain two or three beans. The winner is the player with the most beans at the end of the game.

*Ba-awa* was played by the Twi people from Ghana. The game is played by women and children. The game board is the same as the one used to play *I pere*. You will need 48 beans: Place four beans in each of the six holes. Do not put any beans in the stores.

![Ba-awa game board]
How to play Ba-awa: Each player owns half of the board and play moves in a counterclockwise direction. The first player lifts all of the beans from any hole on his or her side of the game board and sows them one by one into the next few holes. The player lifts and sows beans until the last bean falls into an empty hole. Then the other player’s turn begins. That player lifts and sows seeds until a bean falls into an empty hole.

After the opening play, the owner of a hole may lift the seeds and place them in his or her store if a hole holds only four beans. The player may do this even if the other player is taking a turn.

If a player places the fourth bean in a hole, the player may take the beans if he or she owns the side. If the player sows the fourth bean in a hole on the other player’s side, the other player captures the beans. They are placed in his or her store and the turn ends.

The game is over when there are only eight beans left on the game board and these beans belong to the player who went first in the game. The winner is the player who captured the most beans.

Illustration of three hole Mancala game called Gabetta. Reproduced with permission of The Elliott Avedon Museum and Archive of Games at the University of Waterloo.
CHAPTER 8
INVENTING BOARD GAMES

A good game will stay with us all our lives. A good game makes us want to play it again.

Wolfgang Kramer

Without losing, you cannot win.

Russian proverb

Before you can invent board games, you have to play a few games. Playing helps you understand how different types of games work. You probably couldn’t make a race game with a goal of being the first to finish into a war game with a goal of capturing the most territory. But you might be able to use the same game board for several different types of games. Remember Fox and Geese can be played on a Fox and Geese game board or on a Chess board.

After you have played a few games, you will know which type of game you like best. If you like race games, then you should try inventing one. If you like war games, try your hand at one. If the first game doesn’t work as well as you thought it would, change it. Or start over.

Before you invent a game, you may want to start building your collection of game materials. Don’t throw away your old board games or playing pieces. If
you don't have many games, you could visit a thrift shop and buy old ones such as Checkers or Chess. Then you can use the board to invent new games.

You will want to have a good supply of paper to use when you plan the design of the track and draw your game board. Save old cardboard boxes to cut apart and reuse as game boards. Keep plenty of art supplies such as markers and colored pencils on hand to make colorful boards.

Collect things that you could use to make playing pieces, too. Look for things like old Chess or Checkers playing pieces, small animals, beans, or buttons. Go on a nature walk and collect things like twigs, pebbles, or nuts. If you want to invent race games, your collection should include things like dice, craft sticks or spinners.

Race game boards by the Author
Here is a list of things you might want to consider before you invent your board game.

What is the name of your game?
How many people can play at one time?
How old are the players?
What is the goal of your game?
Does your game have a theme?
What should your game board look like?
What can you use for the playing pieces?
How many playing pieces will you need to play the game?
How will the pieces move?
Can two playing pieces be on the same spot at the same time?
Does the game need tools of chance such as dice?
If it does, how will the players use the tools of chance?
Do you need any other objects to play the game?
How will the players know when the game is done?
Does your game have a winner? How does a player win the game?

You don’t need to consider every one of these questions for every game you invent. You won’t need to consider tools of chance unless you’re making a race game. But you might want to think about how tools of chance could be used in a war game. Let’s say you want to invent a war game using a map as a game board. Maybe you would want to use tools of chance to determine the outcome of a battle.
Your game ideas can come from anywhere. You can think about things you like to do. You can think about other games you have played. Consider themes or ideas about holidays, jungle animals, fairy tales, insects, and treasure hunts. Just about any idea can be turned into a board game.

After you have considered a few ideas, think about the goal of the game. The goal will help players know what they need to do to win. If players are supposed to be the first to reach an island and take the treasure, your game is probably a race game. The goal is to get to the island first.

You need to write game rules so players will know what they need to play the game, how they should begin, how the playing pieces move, and how they will know when the game is over. Often inventors change the rules after they have tested the game with other players.
Make a rough copy of your game. You may want to change things later, so draw the basic design on paper and try out the game. Ask other players to test the game.

They can evaluate how fun it is to play and make suggestions that might improve the game. You could even make a list of questions for the testers to answer. Some questions could include:

- Is it fun?
- Is it different from other games?
- Are the rules easy to understand?
- Is it too hard or too easy to play?
- Would you want to play this game over and over?

Don’t worry if your game isn’t perfect the first time. Most board games aren’t perfect the first time or even the second. But you can always make it better and improve the game until it gets great reviews. And remember, even though the testers make suggestions, you may decide not to make the changes they suggest. You are the inventor, after all.

Once you’re satisfied with the rules and the rough copy, draw the board and make or gather the playing pieces or other materials you will need to play. Write the rules. Now you’re set to introduce your newly invented game to the world. Good luck with your invention!
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ACKNOWLEDGMENTS

Many thanks to my husband, Fred Gulden, for being a great game player and for all his help and support while I studied. My sister, Lori Meyer, provided invaluable assistance as I navigated the graduate college world. I appreciate all of the help from my major professor, Fern Kupfer, and my Program of Study Committee, Barbara Caldwell and Deborah Kilgore. Many people and publishers allowed me to use pictures or information. I am grateful to Hassen Lorgat and Neo Ntsoma for the pictures of Morabaraba, Rick Davies for the rules for Shax, Dover Publications for the use of several pictures from their publications, and Elliott Avedon and the Museum and Archive of Games at the University of Waterloo. I also want to thank my family: my cousins, especially Norm Smith, my brother, Todd Nygaard, for making board games for me, my brother-in-law, Ario Meyer, a great partner in both card and board games, and Ann and Bob Harbin, my in-laws, for many game books and board games. My children, Alex and Max Gulden, are inventive game players and I thank them for that. And last, but certainly not least, thanks Dad!