

AN INTRODUCTION TO

BACKGAMMON

BY

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A (Very Brief) History

Backgammon is one of the oldest games in existence alongside Go and Chess. It is probably about 5,000 years old and originated in Mesopotamia (modern-day Iraq). An excellent pictorial history can be found in the hardback version of "The Backgammon Book" by Oswald Jacoby and John R. Crawford.

Because it is a dice game it is sometimes viewed by the uninitiated as a game of luck. Chance certainly plays its part in the short term but, like poker and bridge where the deal provides the element of chance, the best player will always win in the end and it is, in fact, a highly skilful game.

Like any really good game the rules can be easily learnt in 30 minutes. You can get a good understanding of the basics in a matter of weeks, become adept in six months and a reasonable player within a year. It takes a lifetime (and probably a bit longer) to become a true expert.

Backgammon has long been popular in the Middle East and visitors to that region will be familiar with the clack-clack of checkers being moved on wooden boards at the many street-side cafes. The game was also played in the West but it was not until the introduction of doubling sometime around 1926 in France that it really became popular. Doubling enhanced the gambling element of backgammon and it flourished in the US and the UK until the Wall Street crash of 1929 removed the availability of ready cash.

In the 1970s the advent of oil money saw a resurgence in the popularity of backgammon and big money tournaments attended by celebrities became the norm. As money became tighter in the 1980s the number of players dwindled but there remained a big enough core group to start the real development of the game. Unlike chess, the first recorded game of backgammon only dates as far back as 1973.

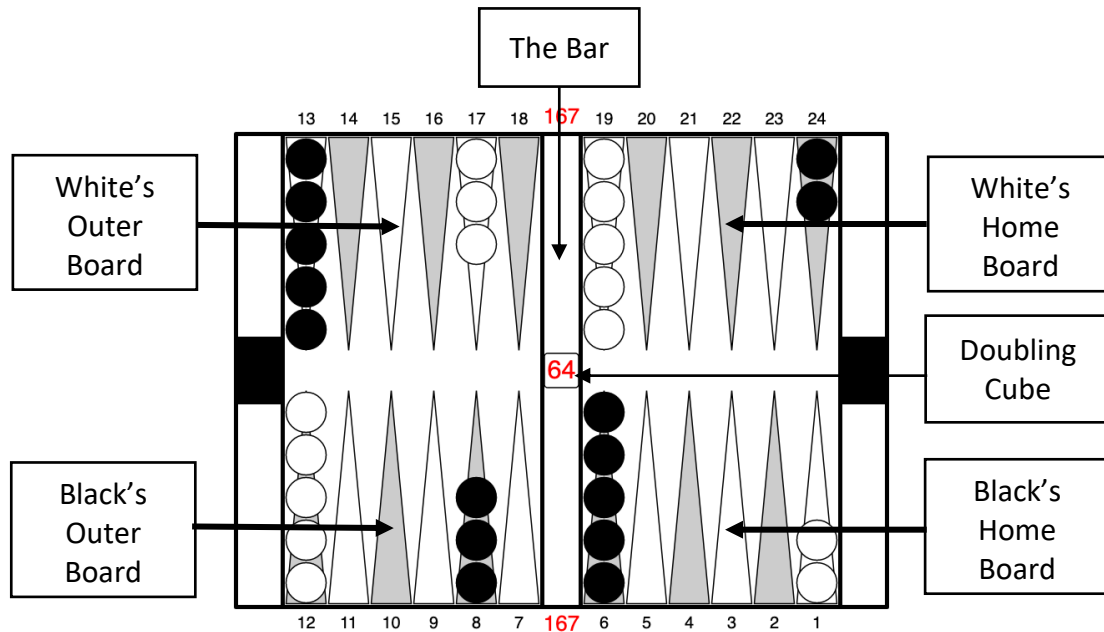
A plethora of books also appeared in the 1970s and 1980s, amongst them "Backgammon" by Paul Magriel, still known as the bible of the game. Other authors such as Danny Kleinman and Bill Robertie also started to produce analytical material. Today the backgammon book market is a high quality but niche market.

Significant advances in theory and playing practice came with computers and particularly with the application of neural network theory. After pioneering work by Dr. Gerry Tesauro at the IBM Laboratories in White Plains, New York, two commercial programs, JellyFish and Snowie, dominated the market in the early years of this century. Computer programs are known as 'bots'. Now the de facto standard is eXtreme Gammon (XG) which is undoubtedly the strongest bot to date. There is a tablet version, XG Mobile, for both Apple and Android devices, but note that this version is not as strong as the PC version.

The bots have forever changed how we think about the game and the player of 2019 is light years ahead of his 1980 counterpart. The "expert" of the 1970s would be hard-pressed to hold his own with many of today's intermediates.

Backgammon is the most infuriating yet fascinating of games. It will provide you with highs and lows of emotion that you will find scarcely credible. Enjoy it!

Equipment



Backgammon Board. Backgammon is played on a board consisting of twenty-four narrow triangles called points. The triangles alternate in colour and are grouped into four quadrants of six triangles each. The quadrants are referred to as the player's home board and outer board and the opponent's home and outer board. The home and outer boards are separated from each other by a ridge down the centre of the board called the bar.

Checkers. Thirty round stones, fifteen each of two different colours, generally referred to as men in the UK but called checkers in the USA. In this paper we will use the term checkers.

Dice. Six-sided dice, numbered from 1 to 6. For convenience two pairs of dice, one pair for each player, are generally used. Precision dice (commonly used in casinos), specially machined for fair rolls, should be used if available.

Dice Cups. Used to shake and cast the dice. Again, each player has his own dice cup. The best cups have a ridge just below the lip on the inside of the cup to ensure fair rolling. Some clubs use baffle boxes, a device through which the dice tumble, to remove even further the chance of "interfering" with them as they are cast.

Doubling Cube. A six-sided dice, marked with the numerals 2, 4, 8, 16, 32 and 64. This is used to keep track of the number of points at stake in each game as well as to indicate which player last doubled. (You will occasionally find a doubling cube marked with a 1 instead of 64.)

Setting up the Board. The diagram above shows the board set up ready for play. Each side has five checkers on his 6-point, three checkers on his 8-point, five checkers on his 13-point and two checkers on his 24-point. A player's 6-point and 8-point will always be on the near side of the board and the 13- and 24-points will always be on the far side. From the point of view of the opposing side the point numbers are reversed. Your 13-point is your opponent's 12-point, your 3-point his 22-point, etc. The point numbers in the diagram above are shown from Black's perspective.

The board will always appear as a mirror-image for the opponent. One player's 1-point will be to the left, while the other's will be to the right. One player moves anti-clockwise and the other clockwise. This can be off-putting at first but after a little practice it becomes second nature. The points are not actually numbered on backgammon boards. The doubling cube starts in the centre as indicated, set to 64 (representing 1). In the olden days the home boards were always positioned next to a light source – hopefully this is not an issue in the 21st century!

Object of the Game

The object of the game is for each player to bring all his checkers into his home board, and then to bear them off the board. The first player to get all his checkers off the board is the winner.

Playing the Game

Starting the Game. Each player rolls one die. The player with the higher number makes the first move, using the two numbers from his and his opponent's dice. In the event that both players roll the same number, each rolls again to determine who makes the first move. In the event of subsequent ties this process is repeated until the dice show different numbers.

Rolling the Dice. The players throw the dice alternately throughout the game, except in the case where a player cannot make a legal move and therefore forfeits his turn. The roll of the dice indicates how many pips (a pip is the distance between two adjacent points) the player must move his checkers. If the same number appears on both dice, for example 4-4 or 6-6 (called a double), the player is entitled to four moves instead of two. Thus, if he rolls 5-5 he can move up to four checkers, but each of the four moves must consist of five spaces.

Rules of Rolling. These are the commonly accepted rules of rolling:

- The dice must be rolled together and land flat on the surface of the player's right-hand section of the board. The player must re-roll both dice if a die lands outside the right-hand board, lands on a checker or does not land flat (known as cocked dice).
- A turn is completed when a player picks up his dice. The 'Legal Moves' rule (played in most European countries and the USA) obliges both players to point out illegal plays and insist upon a correction. A player's move is deemed to have been accepted as made when the opponent rolls his dice or offers a double to start his own turn.
- If a player rolls his dice prematurely – in other words before the opponent has completed his turn by picking up his dice – the premature roll stands and the opponent may complete his turn with the foreknowledge of what the player's next roll will be.

Moving the Checkers. Each player's turn begins with the roll of his two dice. He then moves one or more of his checkers in accordance with the numbers on the dice. The numbers on the dice constitute two separate moves. For example, if a player rolls a 4 and 6, he may move one checker four spaces to an open point (a point not owned by his opponent) and another checker six spaces to an open point or he may move one checker ten spaces to an open point, but only if one of the intermediate points (either 4 or 6 spaces from the starting point) is also open. The bar is not counted as a space.

The checkers are moved around the board towards a player's home board. The two checkers on his 24-pt have the furthest distance to travel, whilst the other checkers have shorter journeys to make. A player's checkers move in the opposite direction to those of his opponent; that is, each player moves his checkers from his own higher-numbered points to his lower-numbered points.

A checker may only be moved to a point already occupied by one or more of the player's own checkers or to an open point, meaning one that is not occupied by two or more opposing checkers. A checker may move to a point if it is occupied by only one of the opponent's checkers. In this case the opposing checker is "hit" and placed on the bar. See "Hitting and Entering" below.

To avoid single checkers (known as blots) becoming vulnerable to being hit a player can try to use his roll to "make a point". A player "makes a point" by positioning two or more of his checkers on it. He then "owns" that point, and his opponent cannot move a checker to that point nor touch down on it when taking the combined total of his dice with one checker. If a player makes six points in a row he has completed a full prime. Creating such a prime means that an opposing checker cannot move past, since it cannot be moved more than six spaces at a time – the largest number on one die.

A player must use both numbers of a roll if it is legally possible to do so (or all four numbers of a double). When only one number can be played, the player must play that number. If either number can be moved but not both, the larger number must be played. When neither number can be played, the player loses his turn. In the case of doubles, when not all four numbers can be played, the player must play as many numbers as he can.

Hitting and Entering. As noted above, a single checker on a point is a blot. If you move a checker onto an opponent's blot or touch down on it in the process of moving the combined total of your roll, the blot is hit and must be placed on the bar. It must re-enter into the opposing home board. A player may not make any other move until he has brought all his checkers on the bar back into play.

Re-entry is made on a point equivalent to the number of one of the dice cast, providing the point is not owned by the opponent (occupied by two or more of the opponent's checkers). For example, if a player rolls 4 and 5, he may enter a checker on either the opponent's 4-point or 5-point, so long as they are open. If neither point is open, the player loses his turn. In the case where a player has more than one checker on the bar, he must enter as many as he can and then forfeit the remainder of his turn if he cannot enter all of them. After the last of his checkers has been entered, any unused numbers on the dice must be played, if possible, by moving either the checker(s) that have been entered or other checkers.

A player who has made all six points in his home board is said to have a closed board. If the opponent then has any checkers on the bar he will not be able to re-enter them into his adversary's home board. Therefore, he forfeits his rolls, and continues to do so until the other player has to open a point in his home board, thus providing a point of entry.

Note that whilst a player may forfeit his roll he never forfeits his right to double at the start of each turn, should he have access to the doubling cube. See "Doubling" below.

Bearing Off. Once a player has moved all fifteen of his checkers into his home board, he may commence "bearing off". A player bears off a checker by rolling a number that corresponds to the point on which the checker resides, and then removing that checker from the board. Thus, rolling a 4 permits the player to remove a checker from the 4-point. Checkers borne off the board never re-enter play. The player who bears all his checkers off first wins the game.

A player may not bear off checkers while he has a checker on the bar or outside his home board. Thus if, in the process of bearing off, a player leaves a blot and it is hit by his opponent, he must first re-enter the checker in his opponent's home board, then bring it round the board and back into his home board before he can resume the bearing off process.

In bearing off, a player can remove checkers only from points corresponding to the numbers rolled on the dice with the exception that, if the player rolls a number higher than the highest point on which he has a checker, he may apply that number to the highest occupied point. Thus, if he rolls 63 and his 6-point has already been cleared but he has checkers on his 5-point, he may use the 6 to remove a checker from the 5-point. However, he may elect not to bear off a checker. He may, if he can, move a checker inside his home board a number of spaces equivalent to one of the numbers rolled. The rules require that a player must use both numbers of his roll (all four in the case of a double) if possible. If he can make moves that don't involve bearing off, he is free to do so. Otherwise he must bear off if that is the only legal play.

Notation

There was no agreed notation for recording games and moves for many years. In the 1970s a standard notation was finally adopted, and that is as follows:

Dice rolls are given as two numbers followed by a colon. The numbering of points is based on the point of view of the player whose turn it is to move. Each point therefore has two numbers, depending upon who is on roll. For example, White's 5-point (or 5-pt) is Black's 20-point. Diagrams are normally numbered from the viewpoint of the player whose home board is at the bottom of the diagram. Each movement is shown by giving the start and end point of the checker separated by a '/'. If a player is on the bar and fails to enter a 0 is used to represent his roll (sometimes the word 'fan' is used). If a player is on the bar against a closed board (his opponent owns all six of his home board points), his move is left blank or notated 'no play'.

Hits are indicated by an asterisk (*). A move made from the bar has 'bar' as its starting point. A move bearing off a checker has 'off' or 'O' as its ending point. Where more than one checker is moved identically, as is often the case with doubles, this fact is indicated by showing the number of checkers moved in brackets after the move. All moves in a game are numbered.

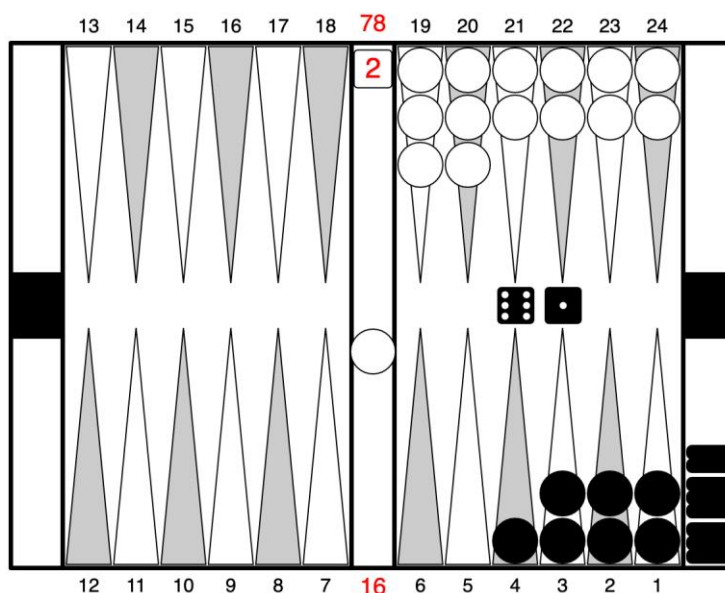
The doubling cube is indicated by a square outline in the centre of the bar. If Black owns the cube it is shown at the bottom of the bar; if White owns it, it is shown at the top of the bar. The value of the cube is always shown within this square. Remember that when the cube shows '64' that is actually a value of '1'.

In diagrams the pipcounts, meaning the number of pips on the dice that a player must roll to bear off all his checkers, are shown above and below the bar (see the diagram above where both pipcounts are 167 and shown in red).

To briefly demonstrate the notation here is an example of the shortest possible backgammon game, one of only three moves:

BLACK	WHITE
1. 62: 24/18, 13/11	1. 55: 8/3(2), 6/1(2)*
2. 63: 0	2. Double
3. Drop	

One final rule with regard to moving the checkers: while the rules require that both numbers must be played if at all possible, the numbers may be played in either order. As an example, look at the following position:



With this 61 (for diagrammatic purposes the dice are shown within the board) Black can play either 4/off, 1/off, leaving a blot that could be hit by White's checker that is still on the bar, or he can play the 1 first and then the 6 by moving 4/3, 3/off leaving no blots. Obviously, the latter is to be preferred.

Winning the Game. The player who bears all his checkers off first wins the game. There are three types of win:

- Single Game: If your opponent has already borne off at least one of his checkers when you bear off your last checker you win a single game.
- Gammon: If you bear off all of your checkers and your opponent still has all fifteen of his checkers on the board then you win a gammon and twice the stake.
- Backgammon: If you bear off all of your checkers and your opponent still has all fifteen of his checkers on the board **and** he still has at least one checker either in your home board or on the bar, then you win a backgammon and triple the stake.

Doubling

Backgammon games may be played for money or points and each game is separate from the next. If played for a stake of say £1 per point, then for each game the loser pays the winner £1 multiplied by the value of the doubling cube and further multiplied by two for a gammon or three for a backgammon.

Each game starts at a stake of one point (where in our example one point equals £1). During the course of the game, a player who feels he has a sufficient advantage may propose doubling the stakes. The player does this by turning the doubling cube to the next appropriate value. Each face of the doubling cube bears a number to record progressive doubles and redoubles, starting with 2 and going on to 4, 8, 16, 32 and 64. At the commencement of play, the doubling cube sits on one side of the board centred between the two players with a displayed value of 64 (representing 1).

A player may double any time when it is his turn and he has not yet rolled the dice. This includes turns in which he doesn't get to roll because he has a checker on the bar and his opponent's board is closed. Even though he doesn't roll the dice because he cannot make a legal move he still has the right to double.

A player who is offered a double may refuse to accept it, in which case he concedes the game and pays one point. Otherwise he must accept the double and play on for the new higher stake. A player who accepts a double becomes the owner of the cube, the cube is placed on his side of the board (showing the new value), and only he may make the next double.

Subsequent doubles in the same game are called 'redoubles'. If a player refuses a redouble he must pay the number of points that were at stake prior to the redouble. Otherwise he becomes the new owner of the cube and the game continues at twice the previous stake. There is no limit to the number of times a double may be offered in one game. After a redouble only the owner of the doubling cube can make a subsequent redouble.

At the end of the game the first player to bear off all his checkers wins the total amount of the stake indicated by the value of the doubling cube. A gammon win doubles the value of the cube and a backgammon win triples the value.

It may seem counter-intuitive to agree to double the stakes when you stand worse in a game. However, consider the following two scenarios:

- 1) In four games Player A doubles Player B in each game. Player B drops all four doubles and is therefore down four points (-4).
- 2) In four games Player A doubles Player B in each game but this time Player B accepts the doubles. He goes on to lose three games but wins the fourth game. He loses two points in each of the games he loses (-6) and wins two points in the game he wins (+2). His net result is -4 points. The same as scenario 1.

This gives us the basic rule of doubling – if you can expect to win at least 25% of the time from any specific position then you can (and should) accept a double.

Doubling is far more complex than this as cube ownership, psychology, gammons and backgammons all play a part in doubling decisions but that is beyond the scope of this introduction – see the Recommended Reading section for further study.

Some additional points on doubling:

Automatic Doubles. By prior agreement, if both players roll the same number on the first roll the stakes are doubled. The doubling cube is turned to 2 and remains in the middle.

The Jacoby Rule. Gammons and backgammons count only as a single game if a double has not been offered and accepted during the course of the game. This rule speeds up play by eliminating situations where a player avoids doubling so he can play on for a gammon. This rule does not apply in tournaments (discussed below).

Beavers and Raccoons. There is an optional rule which says that if one player thinks he is the favourite after accepting a double, he may immediately turn the cube to 4 without forfeiting his option to double again later. This is called a beaver. Additionally, some people allow the original doubler to turn the cube up another notch to 8 if he believes the beaver to be incorrect – this is called a raccoon. With beavers and raccoons note that the cube does not change hands – only a regular double transfers ownership of the cube. Beavers and raccoons must be made immediately after the initial double has been made – there can be no intervening dice rolls or movement of the checkers.

Tournament Play

Backgammon tournaments are normally decided by single elimination matches. Competitors are paired off and each pair plays a series of games to decide which player will progress to the next round.

Matches are played to a specified number of points. The first player to accumulate the required number of points wins the match. Points are awarded in the usual manner: one for a single game, two for a gammon and three for a backgammon. The doubling cube is used, so the winner receives the value of the game multiplied by the final value of the doubling cube. Thus, if player wins a gammon with the cube on 4, he wins eight points. If the players were playing a 7-point match, the match would be over in one game.

Matches are normally played to an odd number of points and the Crawford Rule is always used. The Crawford Rule states that if one player reaches a score one point short of the match (i.e. he is at match point), his opponent may not offer a double in the immediately following game. This one game without doubling is called the Crawford Game. After the Crawford Game, if the match has not yet been decided, the doubling cube is available again. Automatic doubles, beavers, raccoons and the Jacoby Rule are not used in match play.

There is no bonus for winning more than the required number of points. When playing a match to a certain number of points, the winner is the first person who wins that number of points. It doesn't matter if he wins more than that number, or how many points his opponent has scored. The sole goal is to win the match, and the final score is immaterial.

Tournament play is far more difficult than money play because the score influences doubling decisions and checker plays and players have to learn how to incorporate this in their thinking and analysis. See Woolsey's "How to Play Tournament Backgammon" for more detail.

Recommended Reading

There are many backgammon books available, albeit the vast majority of them only from specialist stockists such as Carol Joy Cole in the USA (www.flintbg.com/boutique.html) and Chris Ternel's BG Shop (www.bgshop.com).

What follows is my personal list of essential reading. Study these and you will truly become a much better player:

"Backgammon"	Paul Magriel
"Backgammon to Win"	Chris Bray
"Advanced Backgammon – Volumes 1 & 2"	Bill Robertie
"Classic Backgammon Revisited"	Jeremy Bagai
"The Backgammon Encyclopedia – Volumes 1 & 2"	Kit Woolsey
"Backgammon Boot Camp"	Walter Trice
"Boards, Blots and Double Shots"	Norm Wiggins
"What's Your Game Plan?"	Mary Hickey & Marty Storer
"Vision Laughs at Counting with Advice to the Dicolorn"	Danny Kleinman
"The Backgammon Book" (extended version)	Oswald Jacoby & John R. Crawford

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