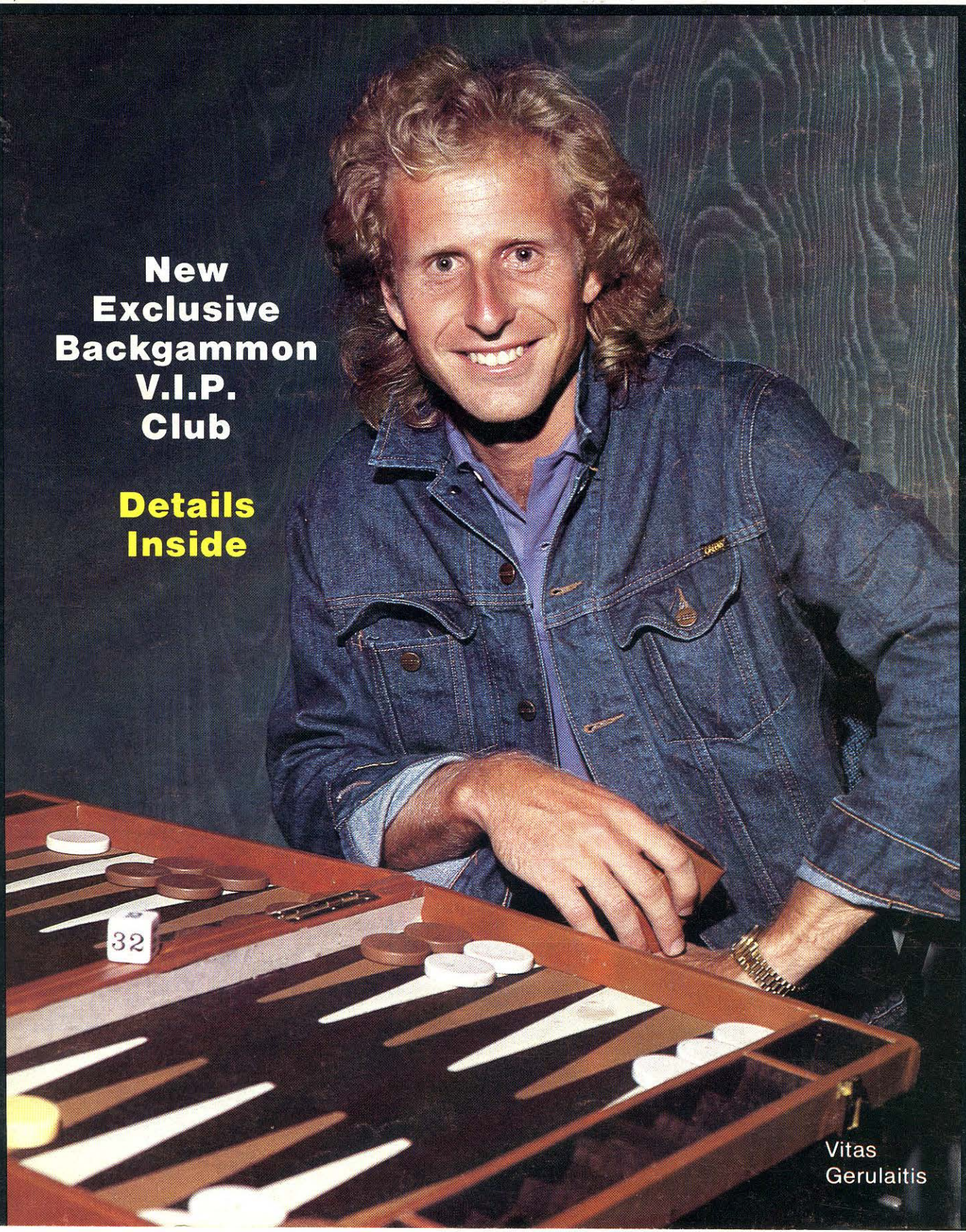
LAS VEGAS
BACKGAMMON MAGAZINE
AN INTERNATIONAL PUBLICATION

Volume X, No. I | U.S. $3.00 | Grt. Brtn. 1 £ | Greece 100 Dr. | France 20 Fr. | Mexico 60 Pesos



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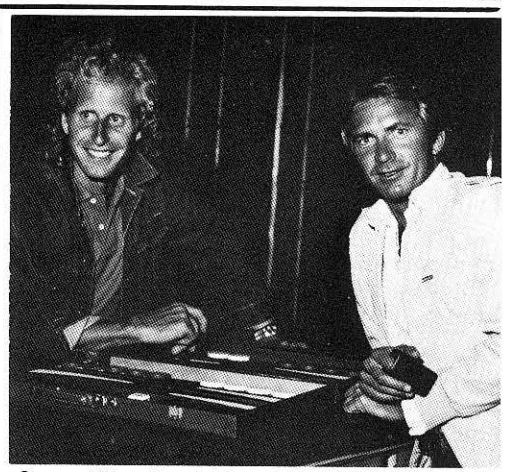
An International Publication
APRIL/MAY 1982

BACKGAMMON MAGAZINE (ISSN 0119-6320) is published bi-monthly by the Las Vegas Backgammon Club, Inc. Michael Maxakuli, President. Editorial and advertising offices at 2258 Marlboro Drive, Henderson, Nevada 89015, (702) 454-2403. Second-class postage paid at Las Vegas, Nevada.

POSTMASTER: Send address changes, undelivered copies and orders for subscription to P.O.Box 12359, Las Vegas, Nevada 89112. Vol. IX, No. VII, 1981, Las Vegas Backgammon Club, Inc. Changes of Address: Allow four weeks advance notice and include old as well as new address. All articles must be submitted no later than publishing month. Subscription prices: $12.00 for one year, $17.00 for two years, $25.00 for three years. Add $10.00 per year for postage outside the United States. Renewal orders must be received at least eight weeks prior to expiration date to assure continued services. Published since 1974.



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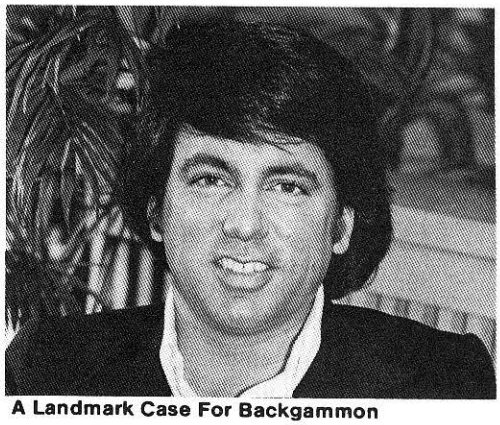

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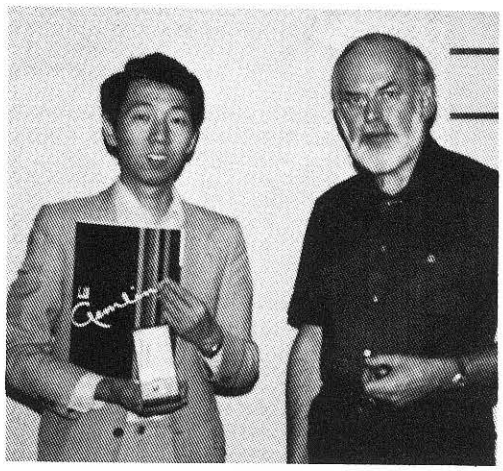

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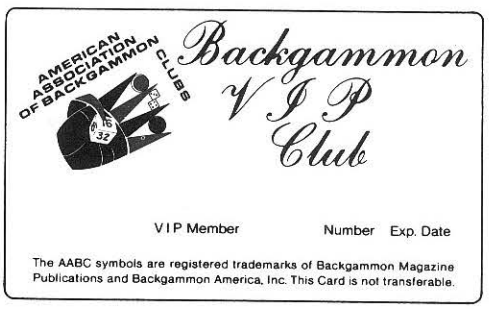

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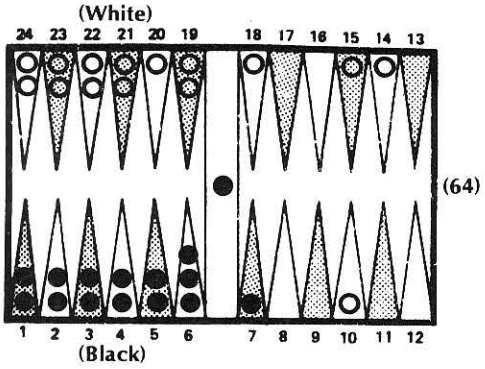
TYING UP LOOSE ENDS (And Other Kinky Thoughts)

by Kent A. Goulding

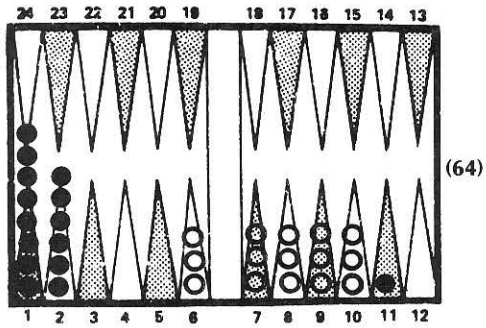
DOUBLE-BEAVER?

There have been a number of articles, letters, and comments about the existence of a position which is both a double and a beaver. Bill Robertie (October, 1980) points out the flaw with the most common double-beaver position:

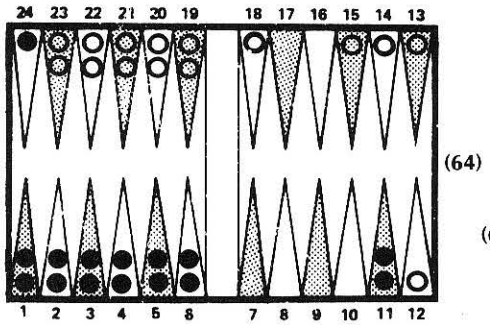


Although Black will **usually** win a gammon when he hits, he won't **always** win a gammon; in fact, he will occasionally lose the game. In order for this to be a double, Black would have to win a gammon more often than he actually does. This position is **not** a double and is an easy beaver.

Arthur Ramer (September, 1981) shows us a position which is both a double and beaver — almost. His solution (first shown to me by Kit Woolsey) would be correct **only** if he moves the five-point blockade out into the outfield, guard-in against the distinct possibility of a back-gammon! The resulting position, shown below, is both a correct double **and** a beaver (assuming the Jacoby Rule applies). Notice that if Black rolls a six, he will **always** win a gammon and will **never** lose the game. If Black **fails** to roll a six, White will send the cube back and Black will be forced to pass. There, Black should double **and** White should beaver!



To add further confusion, Burt Simon has an interesting article (December, 1981) with a variation of the original (incorrect) double-beaver position.

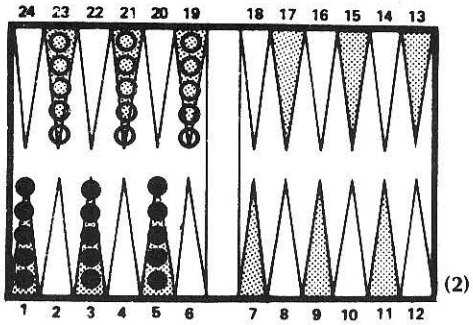


Black is on roll, with the cube in the center. Should he double? Should White beaver? Even if Mr. Simon could convince me that he will win over 95% gammons when he hits, I fear he has overlooked the possibility of getting gammoned himself if he misses. Although this is unlikely, it is far from impossible. A one in ten chance of being gammoned is enough to "bust" his solution, even if he **always** wins a gammon when he hits! Black should **not** double. White should beaver.

So far, the Woolsey (Ramer) solution is the only one I have seen which unquestionably is both a double and a beaver.

A PIP IS A PIP

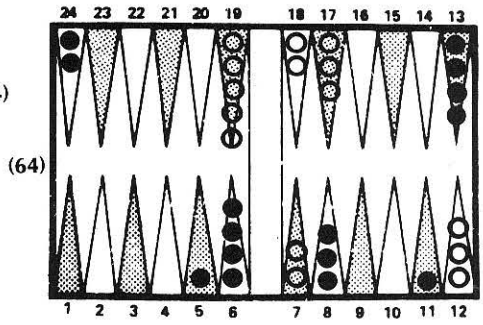
The following position was shown and discussed in the September, 1981 issue of this magazine.



The question asked is: with Black owning the cube and White on roll, which side is winning? I promised my answer in a later issue, so here it is. **Take the fifteen pip lead.** Even with no cube in play you will be a 55-45 favorite. Holding the cube would make it a complete slaughter. The fifteen pips far outweight the "wastage" suffered when you roll even numbers. Try it a few times — you will soon be convinced.

EARLY GAME QUANDRY

Ron Weingrad, a fine player from Pittsburgh, PA (yes, they have backgammon in the Steel City!) had some interesting thoughts in the December, 1981 issue about the following position:



Black has rolled 4-2. What should he do? Indeed, this is an interesting problem. I must admit, though, that I would **not** make Ron's play (he makes his five-point with 11-5). My major disagreement comes with the "advanced concepts of backgammon" applied to "prove" Ron's case. I think there are two things Black wants to accomplish: splitting his back checkers and forming another blocking point in the outfield. Building the eleven point and playing 24-20 does both.

The eleven point has a great deal of value, aside from "blocking double fours." Certainly numbers such as 5-2, 5-3, or 5-4 are also "blocked" by the eleven-point. Also, perhaps White won't roll double fours this turn, but the turn after (it could happen, you know). In that case, Black may have already established the twenty-point, or run away with the blot; the eleven-point would certainly hold some value. This blocking value is lasting and should not be dismissed lightly.

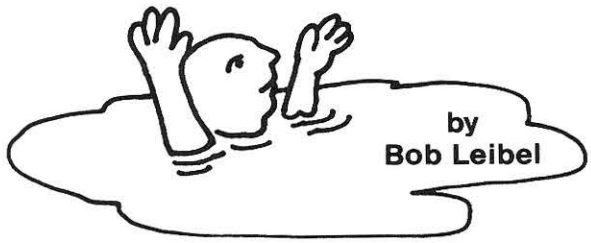
I think splitting is also important, for two reasons. Black is not lost in the race. Splitting to the twenty-point allows him to play numbers such as 6-6 or 6-5 with his back checkers. He may be able to make the twenty-point next turn, and in most cases would be well advised to do so. Secondly, Black wants to make it as difficult as possible for White to play his numbers. It's not at all clear to me that splitting makes numbers such as 6-4 or 6-5 easier for White to play, as Mr. Weingrad suggests.

In summary, it seems to me that Ron has Black's priorities backwards. Most important is to contain White's men on the bar-point and to mobilize your own back checkers by stepping up to the twenty-point, followed by building your board.

RUSSELL WRESTLES WITH THE ODDS

The September, 1981 issue of Las Vegas BACKGAMMON MAGAZINE contains an arti-

(Continued on page 32)



MURRAY'S BACKGAMMON (With Apologies)

Any similarity to names used in this article and to the real names of any San Diego Backgammon Club member is purely intentional!

MURPHY'S LAW:
If anything can go wrong, it will.

SPRINGER'S LAW:
The novice who makes the most stupid play leaving two direct shots will not be hit.

JAN'S COROLLARY: If any or all the blots are hit it will be to the novice's advantage as he will roll miraculously.

DR. WARD'S DISTINCTION:
Indecision is the basis for flexibility.

AZZAM'S COMMENT:
When the final criteria for accepting a double is, "At least I won't be gammoned," you will be gammoned!

BARON'S BASIC LAW:
Nothing is so bad it can't get worse.
COROLLARY: Once things get worse the cycle repeats.

LEIBEL'S LAW:
Once your back game is well established and timed you will roll an inordinate amount of high doubles.

LOUIE'S LAMENT:
Ace-deuce and ace-three appear with high frequency when racing to save a gammon.
COROLLARY: In a race bearing off, gap numbers always show the most.

2ND COROLLARY: In bearing off (racing), filling a gap insures that number will not appear for at least four rolls.

SHERRI'S MISQUOTE:
Tournaments never start on time.

COROLLARY: Tournaments never finish in the time alloted.

2ND COROLLARY: If the time allotted is adequate, the semi-finalists will always be the slowest players.

3RD COROLLARY: All tournament pairings are unfair.

4TH COROLLARY: A husband and wife will travel cross-country to play in a tournament — they will be matched in the first round by random draw.

KIBITZER'S AXIOM:
The best games occur when you are absent.

COROLLARY: When your game is being kibitzed, the better the kibitzer, the worse your rolls, and the more likely you will make the wrong technical decision. . . the reverse is also true.

ANCIENT PROVERB:
A fool and his money are soon parted.
COROLLARY: A hustler and your money are soon partners.

LAW OF PROBABILITY:
If you leave your opponent with a 17-1 shot that will win the game for him, the odds and probability reduce to 50/50, either he will or he won't hit, and that probability extends to a likelihood of a 90% chance that he will hit.

COROLLARY: Probability has absolutely nothing to do with likelihood.

NUTTER'S MOTTO:
Some say yes and some say no, and I am inclined to agree!

FREEDMAN'S LAW:
When trying to enter a one-point board from the bar and cocked dice are thrown, the legal die will always be the number needed.

FORBE'S RULE AND COMMENT:
When bearing off (still contact) you will ponder the best move, make it and it will backfire. "It ain't ever easy."

COFFEE DRINKER'S LAMENT:
Going to the bathroom changes your luck, but only if you are hot — this does not work in reverse.

CRAWFORD'S PRINCIPLE:
If a gammon is needed by your opponent while at the Crawford game, chances are he will get one.

COBB'S LAW OF COMPUTERS:
To err is human, but to really screw up things requires a computer.

COROLLARY: To err is human, but to blame it on someone else is more human.

OPENING PRECEPT:
Slotting on your five-point on opening roll will be hit more often than the law of averages should allow.

RAGSDALE'S REASONING:
If one die is dropped on the floor, it will always be the same color as the floor or carpeting, and it will roll to an awkward position.

COROLLARY: That die, when found, will always show the needed number.

ABDOL'S BASIC LAW:
There is always one person who beats you, no matter his skill level. He will be your opponent in the finals of a tournament, or perhaps worse, your opponent just before the money round.

ROBERTSON'S REVELATIONS REGARDING CHOUETTES:
1. One team member drops a cube and the game will have an immediate turn-around.
2. Greed is non-rewarding to losers.
3. Complex situations have simple, but wrong solutions.
4. When something goes wrong, someone knew it would.
5. Chouette decisions after five minutes of discussion will invariably be wrong.
6. If something could have gone wrong but didn't, it probably would have been better if it had.
7. Paranoia will get you in the end.

PARIANI'S BASIC LAWS AND RULES:
1. When unsure of a move, do it neatly.
2. When no contact exists the one ahead in the race will get further ahead if he is your opponent. If you are ahead, you lead will steadily diminish.
3. When one of two blots can be hit you will choose the wrong one. Knowing this rule will not alter the decision.
4. Whatever has happened to you has happened to everyone else — only more so.
5. When you have finally learned and fairly well mastered a new principle by reading Las Vegas Backgammon magazine, you will not get a chance in the near future to employ it and you will forget it by the next tournament or when the situation does exist.

Keep in mind that hindsight is an exact science, and when in doubt predict that things will get worse. Someone once stated that even Murphy's Law could go wrong, but don't count on it playing backgammon. Just remember that all good things in life are immoral, fattening, cause cancer, are too expensive, or taxed beyond reality — backgammon is the sole exception!!! ☆☆

STATE OF OREGON VS BARR

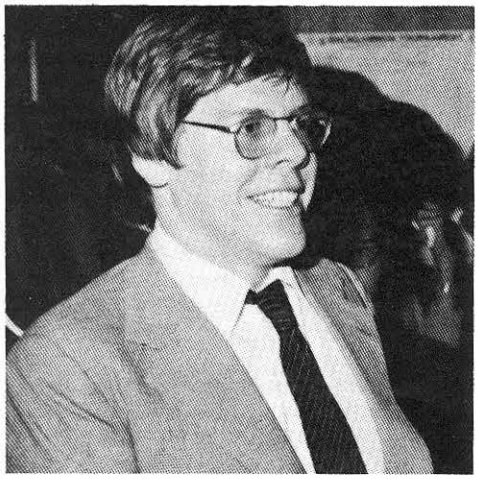
A LANDMARK CASE FOR BACKGAMMON

by Joel Rettew

The case of Oregon vs. Barr tried in Judge Stephen Walker's district court is the most important legal decision in backgammon's history. The four-day trial,which concluded in Portland on Friday, February 19, 1982, resulted in a big victory for backgammon.

The judge ruled that **"BACKGAMMON IS NOT A GAME OF CHANCE BUT A GAME OF SKILL."** Backgammon therefore not subject to Oregon gambling restrictions and can operate like tennis or golf tournaments. This interpretation is sure to have a national impact since the Oregon regulations are identical to the New York state gambling statutes which have been used by many states to draft their own gambling laws.

Chronologically this is what happened. THE BUST: The Portland Marriot Open in February of 1981 was raided by four undercover policemen, three of whom were tournament participants. The police were acting on information supplied to them by a rival backgammon promoter, Rush Kolemaine, director of Pipmasters Backgammon Club.



Paul Magriel

The police were given a cram course on backgammon by Kolemaine and instructed on what to look for. Citizen Kolemaine, in continued co-operation with the prosecutors office, also supplied visual aids and backgammon paraphernalia for the trial.

During the tournament, one Richard Packard was observed making bets on matches. He was charged with bookmaking and later pleaded guilty, receiving a $750 fine.

Next, tournament director Ted Barr of the Pacific NW Backgammon Association was arrested on two charges. The first charge involved bookmaking since Oregon statutes allow for the arrest of whoever is in charge if he knowingly allows bookmaking. The second charge was "2nd degree promoting gambling" meaning that backgammon and backgammon tournaments were considered a form of gambling.

The arrests and charges came in spite of the fact that in three previous years of operating tournaments in Portland, the Lincoln County prosecutor had contacted Barr and had investigated the tournament activities. At that time the Lincoln County prosecutor was of the opinion that the tournaments were all right and a calcutta could be held if there was no cut.

THE INTERIM

Ted Barr, a non-practicing lawyer himself, decided to fight the charges in an all-out battle, so as to determine the legality of backgammon once and for all. The pending charges were, after all, jeopardizing the future of backgammon and the many ongoing tournaments in the Northwest.

Several dismissal motions were filed and on one occasion, the charges were dismissed. The state, though, refiled.

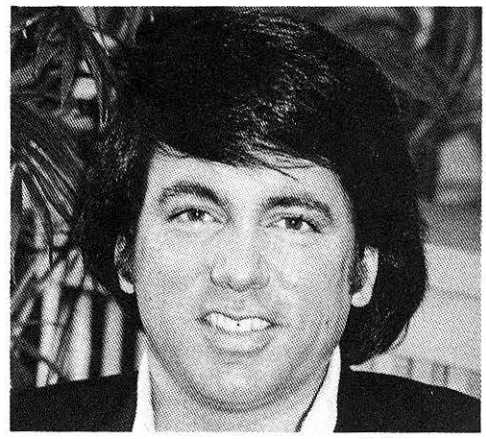
It was then that Barr ran out of defense money. The case from beginning to end cost nearly $100,000.

Ted Barr put out an S.O.S. to the backgammon community. It was answered by Kate Wattson who not only contributed $2,500 to the defense fund but, also picked up the tab for expenses incurred by defense witnesses Henry Watson and Paul Magriel.

THE TRIAL

The prosecution called the four policemen who claimed to have seen gambling at the Marriott tournament during their three-day investigation. They insisted that they knew what to look for since they had been coached by Rush Kolemaine, a man familiar with backgammon tournaments. The prosecution's expert witness on math and probabilities was Dr. Roger Nelson, the Math department head of Lewis & Clark University. Dr. Nelson testified that in his opinion, chance predominated the game of backgammon.

The defense was handled by Portland's prominent criminal attorney, Marshall Emiton. Attorney Emiton went from a dabbler to a backgammon expert in order to properly defend his client.



Ted Barr

The defense called four witnesses. Sandra Warren, a longtime tournament director, testified that police who had looked over her operations were often confused and uncertain about what laws applied to backgammon.

Jerry Himes, a prominent Portland citizen, described backgammon tournaments as social affairs that his wife and children attended and enjoyed.

Henry Wattson, director of the world's largest tournament (the Amateur Backgammon Championships), was the tournament expert. Wattson explained how systems such as the Crawford rule minimized the luck factor in backgammon. He also showed the two-hour-long final match of the 1980 Las Vegas Championships which was the epitome of backgammon craft.

Paul Magriel, author of the definitive book on backgammon and world renowned theorist, was the last defense witness. Magriel gave two hours of brilliant, proficient testimony. The court room by this time was packed to the rafters and all listened with fascination to his highly technical, expert testimony. Upon exiting the court room, he was swamped by the news media and mobbed by courthouse personnel seeking his autograph on personal copies of his book.

THE AFTERMATH

This landmark decision will allow all of us playing and promoting backgammon to breathe a little easier. Backgammon was proclaimed a game of skill. Those experiencing difficulty with the gambling laws in their state can seek advice from attorney Emiton who can be reached at (503) 223-6121. Ted Barr struck a victory blow for all of us. Unfortunately, Barr was found guilty on the second charge of bookmaking. The judge, however, acknowledged that Barr was not participating or profiting from Packard's betting activities but, that his hands were tied due to the wording of the state statutes. Barr received a $150 fine on the bookmaking charge which was promptly suspended.

An important life-saving precedent has been set by the Oregon State vs. Barr case. Justice and respectability has finally come to backgammon. ☆☆

CRAWFORD AND BEYOND

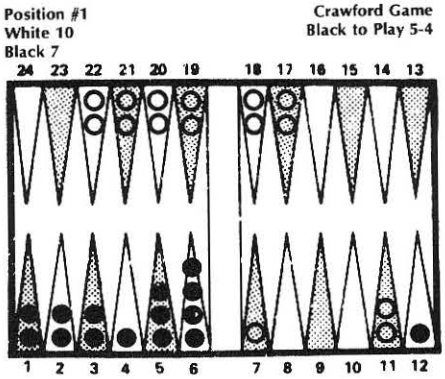
by Kit Woolsey

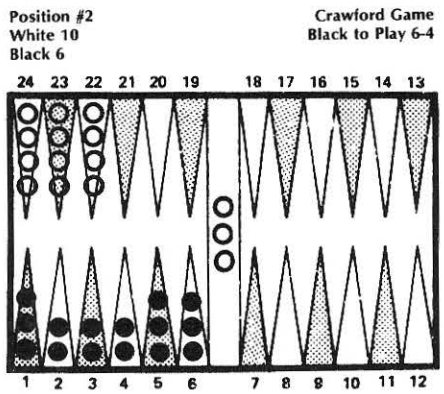
It would seem that once the Crawford game in match is reached or passed, cube decisions are trivial and checker play is considerably simplified — this is not necessarily the case. An understanding of the intracacies of the Crawford game can give the knowledgeable player that little extra edge which might make the difference. In the following examples, assume an eleven-point match.

In position 1, Black must decide whether or not to play for the gammon. If he runs by without hitting, gammon chances are negligible, but the win is virtually assured. If he hits with 12/7x, 6/2 he will almost surely lose if White hits back. If White misses Black's gammon chances are very good — I would estimate about seventy-five percent. So of the thirty-six possible rolls we can say that Black loses eleven times, and of the remaining twenty-five rolls he gets about eighteen gammons. 18 to 11 odds would not be sufficient for money play; you need to be twice as likely to score up the gammon as to lose the game to make it worthwhile. The match score changes the picture. This is the Crawford game, and Black is behind 10-7. If Black wins a single game he must then win two straight (or one gammon), with a probability of about 30%. However, if Black wins a gammon the next game will decide the match (the value of the free drop is probably about 1%) so Black's equity will be 49%. Thus Black is risking 30% equity to gain 19%, and at 18 to 11 odds this is a worthwhile gamble. Of course had the score been 10-8 the gammon would be practically worthless, so hitting would be lunacy.

I had position 2 in a late round match in the jackpot tournament in Monte Carlo. What could be simpler — 6/off, 5/1 seems automatic. However this was the Crawford game, and I was trailing 10-6. A close examination of the score shows that a gammon is virtually no better than a win (I have to win two games or one gammon in either case), while a backgammon in very valuable, as the next game would then decide the match. I chose the unusual play of 6/off, 6/2. The idea is to hold the five-point board as long as possible while taking men off. There is little risk of losing the game, for even if White rolls 6-6 Black is still a favorite. While it could be argued that my ploy is not the best play for the backgammon, it is an interesting consideration since the gammon is meaningless. This type of situation can only occur in the Crawford game of a match. As luck would have it I was rewarded and did win a backgammon (and the match!).

What could be simpler than an opening roll, right? Wrong! Suppose you are behind 10-9,





Crawford game is over with, and you have an opening 4-1. Do not slot the five-point! The old fashioned 13/9, 24/23 is clearly correct. The reason for not slotting the five-point is that you will never get a chance to make it. Your opponent has a free drop available, and he will use it if he fails to hit the blot or roll some super doubles. Your goal should be to play your opening roll so that not too much is swinging on the response. You don't want your opponent to know whether he is winning or losing when you double on your next turn. Some other examples:

6-3: Play 24/18, 13/10 rather than 24/15. If you run your opponent will pass if he misses the blot (unless he rolls a good set), and take if he hits. If you slot his bar-point and he hits it loose, it is not clear who is the favorite.

5-3: Make the three-point, don't bring two men down. You can't let your opponent roll a 9 to discover that he is winning.

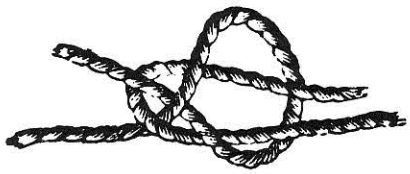
The use of the free drop takes some care. The principle is that if you have a free drop available (i.e. your opponent has an even number of points to go, so losing a single point is meaningless since he will presumably double every game), you should drop if you are an underdog when he doubles. The next game of the match I scored the backgammon (score now 10-9) started as follows: I rolled 6-5 and ran, he rolled 3-1 and made the five-point. I now doubled, of course. Should he take? It is a close decision, but I think that opening 6-5 plus the roll is better than an opening 3-1, so I feel the double should be dropped (in practice, he did take).

Obviously, the player behind in the match should double as soon as legally possible after the Crawford game is over, right? Not necessarily! Consider the following situation: You are behind 10-8, having just won the Crawford game. Your opponent does not have a free drop available, for if he loses as much as one point you can double the next game for the match. Consequently, he should take any double unless he is more likely to get gammoned than to win the game, and a position has to be pretty bad for that to be the case. Consequently, if you double on the opening roll he will surely take, and that will be that. Now, picture the following scenerio: You wait a few rolls, until your position gets strong. If a real gammon threat looms you must double before it materializes, and he should take, of course (but you never know). If there is no gammon threat, you can play on until you are a substantial favorite (say 85%) to win the game. Now you double. He should take, of course, but it can't cost to give your opponent a chance to make a mistake and drop. If he does, your 85% becomes 100%, since the extra point you would get if he had taken and lost is of virtually no value. I have had several opponents err in this situation. A weak player might not know better, and even a strong player may go wrong if he underestimates his opponent and thinks that he doesn't know enough to double after the Crawford game. Imagine his surprise when his adversary whips it on the opening roll of the next game!

At a 10-9 score, the trailer obviously must double immediately, it seems. However, even this is debatable. Suppose you open with 3-1 and make your five-point, and your opponent counters with 5-2, bringing 2 men down. If you double he will drop, since he has a free drop available. There is a lot to be said for rolling on and playing for the gammon! The point is that your opponent should only take at this score if he is a favorite, and this is very unlikely to be the case after the next roll. As usual when playing for a gammon you must re-evaluate the position after each roll, and if there is much danger that in one roll he will have a take (i.e. become a favorite in this case) you must double, but as long as your advantage keeps growing it is correct to play on. I think that it is, in fact, correct to play for the gammon in this situation. Paul Magriel disagrees, feeling that the gammon chances are outweighed by the cost of becoming the underdog in one roll if your opponent rolls a lucky number at some point in the game — judge for yourself. ☆☆

TYING UP LOOSE ENDS

(Continued from page 10)

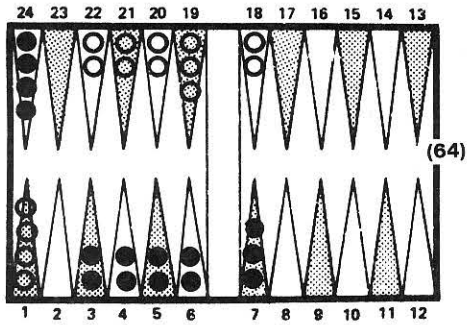


cle by Russell Sands. Russell "outwrestled the odds" by winning first prize in the 1980 World Amateur Backgammon Championship. His article may be viewed as something of a rematch. In his article Russell examines six positions, making it a six-round bout.

In round (position) one, the odds strike first and hard. Russell is knocked to his knees and dazed, as explained by Bill Horn in his letter to the editor (December, 1981). I agree with Mr. Horn and score this round 10-0 in favor of the odds.

Russell fights back in the round two. The position is straight-forward and Russell's analysis is sound. Score this round to Russell.

Round three is a beauty. Russell has borrowed the following position from Danny Kleinman's tome, *Vision Laughs at Counting with Advice To The Dicelorn.*



Chuck Papazian (Black) is trailing Hugh Sconyers (White) 6-9 in a match to eleven points. Russell (and Danny) start out by stating that under normal circumstances this position would not be a double and would be a money beaver — I agree. They both state that with no cube each side is equally likely to win the game. I suppose this is a close approximation. Due to the match score and the gammon threats I agree that Papazian (Black) is wise to double. After that, however, Russell drops his guard and the odds start pounding on him brutally. He agrees with Danny that Sconyers (White) was correct to pass! His reasons are that if (White) loses, he will probably be gammoned. If, in fact, both sides have an equal chance of winning this game, passing would be a big mistake. Certainly there is a large gammon threat, but I don't think the results will be over 80% gammons, which is what is needed to make passing even close to being correct. This alone puts Russell in big trouble this round, but it gets worse. Russell then claims that leading 9-7 in a match to 11 gives the leader a 74% chance of winning the match. He may as well bang his head against the corner post, as that statement is completely wrong. It looks like the odds have Russell in a "submission hold." Can Russell escape? Stay tuned. ☆☆

1981 WORLD CHAMPIONSHIPS

(Continued from page 21)

which do not hit (5-1, 5-2, 5-3, and 5-4). Joe's play gives a double shot against 5-1, 5-2, and 5-3, but only a single shot against 5-6.

Incidentally, playing 6/5(2) with half of the roll is a serious error. It deprives Lee of the chance to roll 5-1, exposing a crucial second blot.

32. ...	5-1: Bar/5, 22/23
33. 2-1: 6/5*, 16/14	...

Excellent. Once the exclusive property of a small coterie of top masters, this type of play has become more widely known in recent years. If Lee dances, Joe may be able to close her out directly. If she enters but doesn't cover the twenty-three-point, Joe may be able to send a second checker back, making him a heavy favorite. Only if she rolls one of the eight numbers that both hit and cover (6-1, 6-3, 5-1, 5-3) will Joe be worse off with this play.

33. ...	6-1: Bar/6*, 22/23
34. 3-1: Bar/24, 9/6*	6-5: Bar/6*/11
35. 4-1: Bar/24, 10/6	...

Joe's play is a trifle less accurate than Bar/24, 14/10. By removing the blot that is directly attacked in the outfield, Joe creates slightly more hitting chances for himself next turn.

Here the play that is the most effective in creating double-blot numbers next turn is Bar/21, 14/13. By blocking tens, it forces Lee to expose two checkers with 6-4 and 4-6, while the other plays only yield two blots if Lee's next roll is 5-5. However, this play is much weaker in immediate shot numbers, so I don't recommend it.

35. ...	4-3: 11/14*/18
36. 5-4: Bar/16	3-3: 18/21*, 20/23(3)

No respite! With $45,000 riding on the outcome, the players are forced over and over again to make pressure-packed decisions.

Lee makes an error here. She has already borne off seven men. At this intermediate level (between six and ten men off) checkers are more important than shots. Consequently, she should play 18/21*, 22/off(2), 20/23, leaving her with nine men off. This would make her a slight favorite even if she were hit and closed out.

Curiously, the play I recommend is also safer in terms of immediate shots. Lee's play looks safe, but it leaves Joe with seventeen return shots (all 4's, 6-3, 5-3, and 3-1). Playing 18/21*, 22/off(2), 20/23 actually leaves only sixteen shots (all fours, 6-3, 3-1, and 3-3). On the second turn, Lee's play is considerably safer, with only fifteen rolls leaving a subsequent blot, as opposed to twenty-one after bearing off two men.

37. 4-2: Bar/21*/19	...

Bar/21*, 16/14 offers both more cover numbers for the six- and five-points (9's and 8's instead of 11's and 10's) and better coverage of Joe's outer board if Lee reenters.

37. ...	0
38. 3-1: 6/5, 16/13	0
39. 4-3: 19/12	0
40. 6-3: 13/10, 12/6	...

Joe correctly slots. If Lee misses, he can cover with all 4's (except 4-2), 3-1, 1-1, and 6-6 (thirteen numbers).

40. ...	0
41. 4-2: 24/18	...

Incredible irony. 2-2 is the only other non-covering cover number. After this play, Joe has four new cover numbers: 4-2, 3-3, and 2-2.

41. ...	0
42. 6-1: 18/11	...

Bad luck for Joe. Lee stayed out five times in a row, but Joe couldn't cover.

This play is a slight inaccuracy. It leaves him with twenty-seven covers next turn, while the correct play (18/12, 10/9) yields twenty-eight covers. Joe's play also yields four double-hit numbers, versus three with the other play.

42. ...	6-5: Bar/6*/11*

Finally Lee reenters, and with a tremendous double hit. Joe's not dead yet, however.

43. 6-4: Bar/19, Bar/21	...

Joe enters both men and stays in the game. Only 6-6, 3-3, and 6-5 bring Lee's last checker home safely.

43. ...	5-2: 11/18

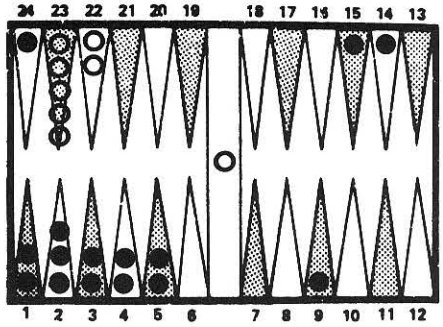
Amazing. Lee is forced to leave a triple shot.

44. 6-3: 21/18*/12	0
45. 4-1: 10/6, 19/18	0
46. 1-1: 18/14	0
47. 2-1: 14/11	...

Again Joe twice fails to cover. After 14/11, he will have twenty-eight cover numbers next turn, assuming, of course, Lee stays out.

47. ...	6-2: Bar/6*/8
48. 5-4: Bar/20, 12/8*	0
49. 2-2: 8/6, 20/14	6-2: Bar/6*/8
50. 6-2: Bar/19, 11/9	5-2: 8/15
51. 3-1: 19/15*	0
52. 2-1: 15/12	...

Black to Play 2-1



An error that might have cost Joe Dwek the World Championship. The slot (9/6) is correct. With his outfield checkers on the fifteen- and fourteen-points, Joe has 9's, 8's, and 6-6 to cover — twelve numbers in all. This is the equivalent of a direct cover number and is enough to justify the slot.

52. ...	0
53. 2-2: 14/6	...

This would have covered, had Joe played 9/6 last turn.

Had he closed his board, Joe would have been about a 70-30 favorite in the game. The difference between this position and that following move 28 is that Lee has moved her checkers from the twenty-two- and twenty-points to the twenty-three- and twenty-two-points, this improving her equity by about 10%.

53. ...	6-5: Bar/6*/11

No more jokes. Lee reenters for the eighth (and last) time.

54. 5-5: Bar/20, 12/7, 9/4, 24/19	6-3: 11/20*
55. 6-4: Bar/21, 19/13	4-1: 20/24/off
Resigns	

For an annotated copy of the entire 35 games of the Genud-Dwek World Championship match, send $25 to:

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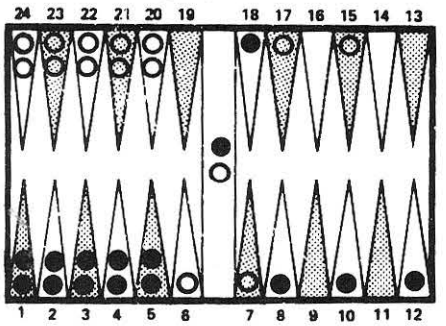
PERPETUAL REDOUBLE?

by Bill Kennedy

While thinking about the strange things that can happen in backgammon, I came up with the following position:

Should the Player on Roll Redouble?



Although it is unusual to redouble with only one winning shot, I felt that it was correct here because:

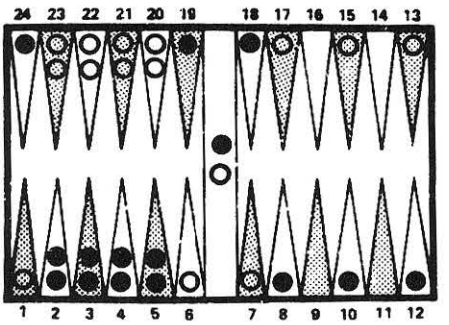
(a) The player who enters first loses a lot if he hasn't doubled, since he is very likely to gammon his opponent.

(b) Possession of the cube has little importance; whoever comes in first will simply blast his opponent off the board. The cube is only likely to come to life if a shot is hit in the bearoff.

So the advantage of rolling first seemed to outweigh the value of owning the cube, and I offered to play this as a proposition, where I would redouble and my opponent wouldn't alternating first rolls.

However, an analysis by Bob Floyd (page 34) shows that, even though the redoubling side should win that proposition, it is not necessarily right to re-cube. Bob is a professor of computer science at Stanford with an international reputation in the design and analysis of algorithms, and a strong interest in mathematical aspects of backgammon. After seeing Bob's analysis, I went back to the drawing board and came up with this:

Should the Player on Roll Redouble?

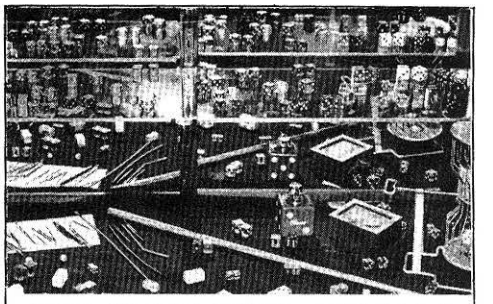


This position is quite a bit different from the first one. The player on roll is now favored to roll the crusher — the key factor. Possession of the cube is important, for the player who is hit first is favored to get a decent ace-point game, where hitting a shot is a distinct possibility. The chance of an ace-point game makes this an easy take.

Nevertheless, the great advantage of the player on roll outweighs the value of owning the cube, and the roller must redouble (if he can afford it).

In this case the infinite series discussed by Bob will add up, because each term decreases. Each successive term is multiplied by 2 and by 16/36 (the chance of a miss).

The idea of the cube rising to some astronomical level seems crazy — but consider that every time you play backgammon for money there is no limit on the cube. You need to be at least half-crazy to play backgammon in the first place. ☆☆



CROOKED DICE COLLECTION

At Reno's Reno-Tahoe Gaming Academy, visitors now can view the most comprehensive collection of dice ever assembled-and they're all crooked. The dice, which come in every color, size and shape are loaded in one form or another.

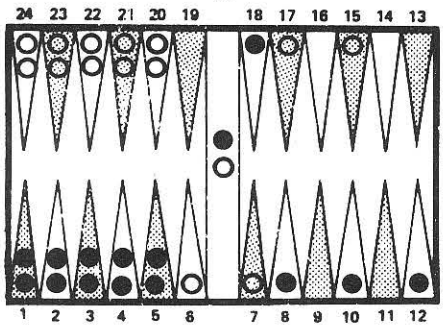
The dice collection is on display daily at the Gaming Academy, which is located in the Reno-Tahoe Visitors Center at 133 N. Sierra Street. Guided tours daily at 2 p.m.

Riding the Tiger

by Bob Floyd

The problem in Position A was composed by U.S. Amateur Champion Bill Kennedy. Kennedy's opinion was that the position is a perpetual redouble and take; that is, that each player should redouble until one of them comes in from the bar. The truth is much more complicated than that. Correct cube handling in Position A depends on how wealthy you and your opponent are, and whether he pays up when he loses a bundle (I assume that you do, of course).

A



Let's first work out the expectation (fair settlement value), assuming that the wealth and honesty of both players is great enough that neither hesitates to double or take a double when it is mathematically correct, no matter how high the cube gets. To simplify matters, assume that whoever comes in first will win a gammon; the conclusions would be the same if we assumed an occasional single game, or loss, for the first to enter.

The chance that the first player comes in on his first turn is 11/36; that of the first player failing and the second player coming in on his first turn is (25/36) x (11/36). The 36 to 25 ratio between these chances is repeated for all subsequent turns until one player has come in, so the odds are 36 to 25 that the player on roll will come in first.

If the first player keeps the cube, we would expect that if the position were played sixty-one times, the first player would win twice the cube in thirty-six of them, the second player would win twice the cube in twenty-five of them, and the expectation for the player on roll would be 2x(36-25)/61 = 36% of the cube.

If the first player redoubles and the second player keeps the cube, the stakes are twice as high with everything else the same, and the expectation for the first player would be 72% of the original cube, so it is clearly better to redouble if your opponent will not redouble, but it is also a clear take.

If the first player redoubles and the second player re-redoubles, and they keep this up until one or the other comes in, the first player's expectation is some fraction E of the cube. The equation for E is:

$$E = 2x(11/36 \times 2 - (25/36)E)$$

where the first 2 results from the cube turn, the second is from the gammon, and the minus sign is because if the first player fails, the second player's positive expectation is the first player's negative expectation. The solution of this equation is E = 51% of the original cube. (We shall see later on that there is a logical fallacy in applying this equation to this problem).

So, apparently, the player on roll does best to double, and his opponent holds the first player's expectation down to 51% of the cube by taking and redoubling. However, this position has a great likelihood of reaching very high stakes; the chance of a 1024-cube, with each player dancing four times, is a $(25/36)^8 = 5.4\%$. Eventually, one will decide not to redouble because he can't cover his potential loss, or because he can't afford to take the re-redouble, or because he doesn't trust his opponent to pay. Let's let E (i) be the first player's expectation as a multiple of the original cube if the cube is turned one time then held. We already know that E(0) = .36, E(1) = .72. The equation that gives all the E's is E(i+1) = 2x (11/36 x 2 - 25/36 x E(i)) = (44-50 E(i))/36. This table gives some of the solutions:

i	e(i)
0	.36
1	.72
2	.22
3	.92
4	-.05
5	1.30
6	-5.8
6	-.58
7	2.05
8	-1.63
9	3.48
10	-3.61

If the first player redoubles on his first three turns, then chickens out when faced with turning the cube from 128 to 256, his expectation is **minus** 58% of the cube, far worse than the 36% he expects if he doesn't double at all. If the first player is the one who eventually keeps the cube, he should not double the first time; the longer he doubles, the more he can expect to lose, unless he can afford to keep it up longer than his opponent. When you ride the tiger, getting off is the hard part.

If the cube is in the middle, though, the first player must double, under the Jacoby rule, to activate the gammon. By doubling, accepting the redouble, and holding the cube, his expectation is E (2) = .22; if he declines to double, accepts a double from the second player, and holds the cube, his expectation is 11/36 - 25/36 x E(1) = -.19.

Because of the potential for very high stakes in this position, I would ask any opponent to agree to put cash on the table to back each redouble and each take.

Now, let's go back and look again at the equation for the expectation when the game is played as an infinite redouble (bearing in mind that it can't really happen because no backgammon player is infinitely rich). The true expectation to the first player (let's say Black is on roll) is an infinite sum:

4 x 11/36, (Black enters on his first roll)

-8 x 25/36 x 11/36, (White enters on his first roll)

+16 x $(25/36)^2$ x 11/36, (Black enters on his second roll)

-32 x $(25/36)^3$ x 11/36, (White enters on his second roll)

+32 x $(25/36)^4$ x 11/36, (Black enters on his third roll)

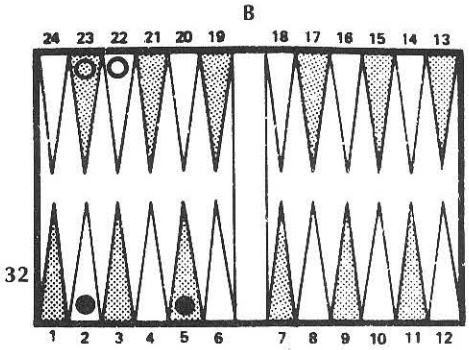
etc.

which equals 1.22 - 1.70 + 2.36 - 3.27 + 4.55 - 6.32..., a series which doesn't add up to .51 times the cube. It doesn't "add up" to anything. It alternates between being larger and smaller than .51, getting further and further away. Technically, this a "divergent series," and the usual formula for the sum of an infinite series doesn't apply to it. The equation for expectation when both players redouble gave a number that **would** be the sum **if** the series had one, but it **doesn't** have one. The average amount you win in this position, assuming you do win, is **infinite;** so is the average amount you lose. The expectation for the first player if the game is played as a perpetual redouble is not .51 times the cube, or any other number; it is infinity minus infinity. If you know how much that is, please tell me, and I'll notify the mathematicians. The practical reality of the position lies in the analysis that takes the players' limited resources into account; the player with the larger bankroll, if both are honest, or player who is prepared to welsh on a large bet, has the advantage.

In all such positions, a player who can't otherwise afford to give a mathematically correct redouble should sell a share of his equity in the game. However, in Position A, no finite amount of financial backing is certain to be enough. If your backing is better than your opponent's, you should redouble, but be careful; he may have rich friends you don't know about.

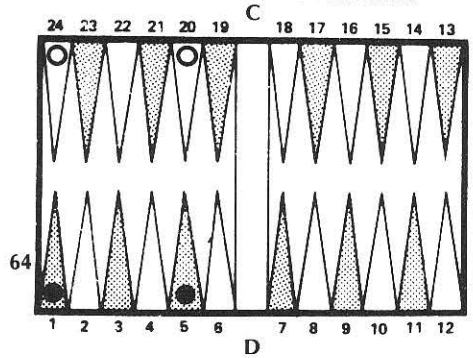
There are other positions where correct cube play depends on financial resources, although not in such a dramatic way. In Position B, Black should not redouble unless White can not afford to re-redouble.

B

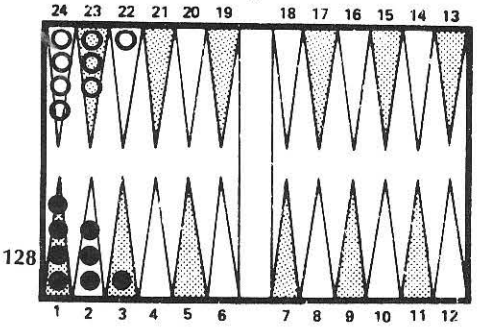


In positions C and D, Black should only take a redouble if he can afford to re-redouble.

C

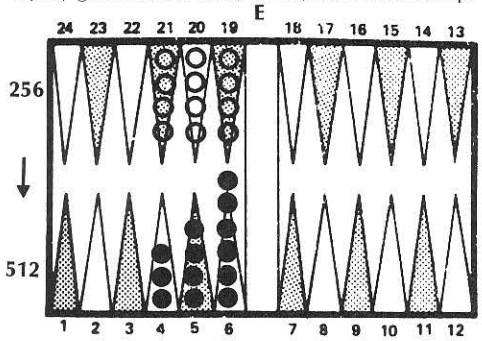


D



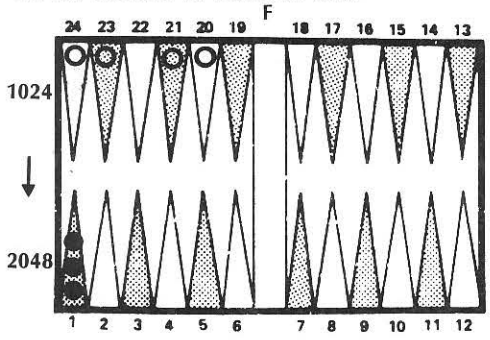
In Position E, Black has about a 24 percent chance of winning if the game is played to the end. If he can afford to re-redouble, his cube equity gives him a take; if not, he should drop.

E

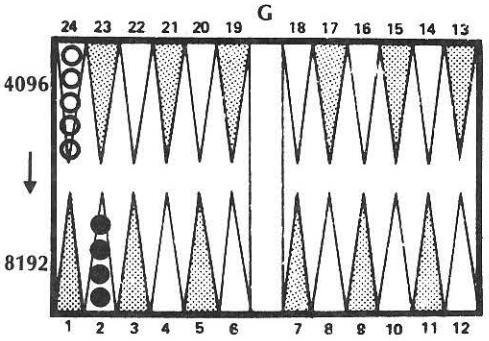


In Positions F and G, Black should only beaver if he can afford to re-redouble later.

F



G



FUN FACTS
DID YOU KNOW:

Ripley's — Believe it or not!

A BOARD GAME WITH MOVABLE PIECES IS DEPICTED IN THE TOMB OF QUEEN NEFERTARI OF EGYPT, IN A PAINTING MADE ABOUT 1250 B.C.

● In 1970, William Edward Bushey, then Lieutenant Commander, United States Navy, wrote a thesis titled GAMMON, an approach to the concept of strategy in game-playing programs? It was submitted in partial fulfillment of the requirements for the degree of Master of Science in Computer Science from the Naval Postgraduate School. This 141-page document is remarkable in that it preceded not only the seventies' backgammon craze, but also foresaw the popularity of game-playing computer programs.

● In 1943, the most popular game in the Armed Services was Acey-Deucey? Hollywood, obviously, was unaware, as none of the war movies made during that period feature or make reference to this backgammon variation.

● Bruce Becker, author of Backgammon for Blood, has never been identified? He is thought to be a New York-based writer who writes strictly for money. Supposedly, his modus operandi is to rush a "how-to" book to his publisher on whatever the current fad is. In 1974, it was backgammon. Many of the radical moves in his book are now believed to be the mistakes of someone unfamiliar with the game, rather than advanced genius plays.

● Many of the discarded backgammon books of the thirties (The New Backgammon, Backgammon of Today, etc.) re-surfaced in the seventies to capitalize on backgammon's new found popularity? The publishers of these books did a great disservice to backgammon by passing these poorly written antiquated books off as the happening thing. Many who rushed to buy these dull books obviously could not see what the current excitement was all about.

BACKGAMMON BLUES

Tie Score Revisited

by Joe Stampher

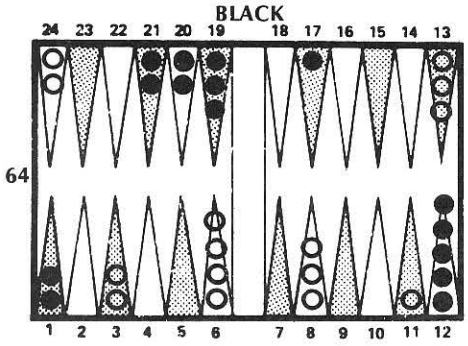
This topic has been covered before, but not, I feel, with sufficient clarity. The tiny bit of mathematics is instructive.

I was competing in a club tournament a few months ago, matched against a peculiarly smug and overbearing young lady who has since disappeared. I don't wish to delve too deeply into amateur (intermediate) psychology, but she seemed intent on displaying her vast backgammon experience at every turn, presumably compensating for her obvious nervousness. At one point I made a necessary defensive move and she immediately exclaimed, "Barclay Cooke! A Barclay Cooke player. Okay."

Now I certainly don't mind being compared to the illustrious Mr. Cooke, but the implication was that I had somehow managed in my foggy state to recall one of his book positions, and that I was merely moving mechanically. What's more, she seemed to imply that if I indeed performed like a Cooke clone, it would be child's play to beat me. Now, no doubt a few of Barclay's statements are controversial, and some recommendations are somewhat dated (e.g. his railing against the split 6-4 opening), but on the whole I think his writings stand the test of time. He might even have given my opponent a fair game.

The match was to nine points and I fell behind 7-3, a victim of lackaluck, a disease causing one to avoid isolated checkers (also termed nohitum). Then like the unabashed expert I am, I caught up with admittedly superb cube handling — I gammoned her in a 2 game by rolling five doubles.

At 7-7 I thought, "Here we go, match on the line." We reached this position:



9PT. MATCH SCORE: 7-7
SHOULD BLACK DOUBLE?

She was BLACK and she didn't double! At first I said to myself, "How arrogant!" for reasons I'll get to later, but of course I knew she didn't understand the fundamental precept —

Double in a tie match with two points to go with ANY advantage.

Scores of experts have discussed this axiom. But the question in the mind's of most players is, "Am I sure that a small advantage, which in this fickle game is often quite ephemeral, is worth the whole ball of wax?"

We can answer this with a simple application of probability theory. If you double and estimate your advantage to be 55%, then your odds of winning the match are just that: 55%. On the other hand, if you hold off doubling, your probability of winning the match is (.55) (X) + (.45) (1−X) = .45 + .1X.

X is your probability of winning one of the last two games and avoiding the gammon. This can be estimated anywhere between 60% and 75% (I like 67%), but notice that unless X=100%, your probability of winning the match will be less than 55%. A double is mandatory.

Now let us assume that you are playing a novice. You figure to win 80% of the games. You obviously would not double in the above instance, since your opponent would have a 45% chance of walking off with all the potatoes. Even if you lose the game, you will still be a 64% favorite.

When should you double?

Answer: When your odds of winning this game exceed your odds of winning the match sans cube. This is figured, letting Q=odds of winning this game: (Q) (.96) + (1−Q) (.64) = Q (You have a 96% chance of winning at least one of the next two games). Q turns out to equal 94%. Therefore you **do not double** until your odds of winning the game become very great. The beginner, of course, should double even when behind, but few beginners even consider using such a weapon.

The following table shows when to double after a relative comparison of your opponent's skills.

7-7 in 9 Pt. Match

Skill Differential Your Advantage	Advantage Needed to Double
.70	.85
.65	.78
.60	.69
.55	.60
.50	.51
.45	.40
.40	.31
.35	.22

Hopefully, the numbers at the bottom of the scale will be less interesting to you.

I have often felt that I was a 65% favorite, and, thus, was quite conservative in my late-match games. Most of the time, however, the cube will be turned rather quickly.

Back to my match.

Since she didn't double with what I estimated to be at least a 55% advantage, she was either arrogant in the extreme, seeing a significant disparity in our playing abilities, or (more to the point), she was ignorant in tournament tactics.

I went on to turn the game around and, with suitable respect, doubled with my own 60% advantage. She dropped! Well, it was consistent.

Unfortunately, I got gammoned in the Crawford game — since when did odds make any difference — but there is one happy note for me. She will never play the game correctly, not with **that** positive reinforcement.

THE THIRD DEGREE

by Joel Rettew

What are storms? Lately, storm or storming has been heard a lot around the backgammon table. What's up?

When a player is on a hot streak, he is said to be storming. A storm is something that defies the law of averages. In many instances, a cold spell can be a storm, too. The interesting thing about storms is that they have no time limit. It has been noted that some players streak for years not recognizing that they are defying the dice. When the streak ends, the stormer refuses to believe it and inevitably gets "buried" (a self-explanatory term), which then gives us the material for the "Whatever Happened To?" articles.

What is PPG?

Pressure Per Game — a concept developed by one Nick Vacchiano to determine the value of the spot in backgammon. For years now, weaker players, especially in Las Vegas, have asked for positional or money spots to even out a game played against superior players. The spot is usually negotiated. Often the value of the positional spot can be calculated. For example, an opening roll is thought to be worth six to five. Money spots, on the other hand, are more difficult to calculate, especially when it involves the turning of the cube in races and end positions.

PPG is the phantom unexplored area that defeats the better player, even when he believes that he has matched up correctly.

The results as yet are not totally conclusive but, the spot has been found to add an extra strain on a player, not only on his emotions, but on his ability to calculate and reason as well. Decision-making concerning the cube and proper play is affected by the distortion factor of the spot which makes the normally right decision the wrong decision and vice versa.

The cadence of the superior player's game is thus disturbed and the edge goes to the one getting the spot — and this is PPG.

What is Snake?

Snake is two things: One, a slang term for a rolling prime. The term is especially used in propositions where the rolling prime literally snakes around all four boards; two, a backgammon variation, which is played primarily as a basic practice game. Black's pieces are set up as usual (five on B6, three on B8, five on W12, and two on W1), but White has only six men on the board, two each on B1, B2, and B3, the other nine being on the bar. All other rules are as in regular Backgammon.

The Ultimate Score

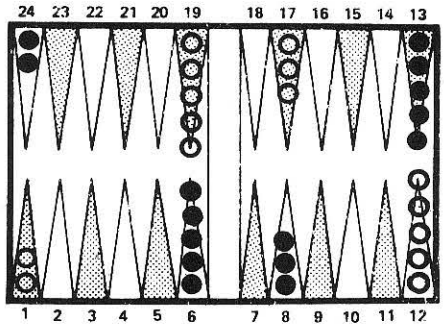
by Bill Davis

When Michael Maxakuli informed me that he had received a registered letter containing a twenty-one move solution to the "Ultimate Backgammon," I figured that I was out $500. You may recall, in the December **Las Vegas Backgammon Magazine,** I offered that amount to the first person who could legally create a twenty-one move (or less) game where Black backgammons White with fifteen checkers on the bar.

Jack Margosian of Brighton, Michigan submitted this twenty-one roll sequence:

1. W (3-1) 1/2 19/22
2. B (6-5) 24/13
3. W (3-1) 17/18 17/20
4. B (4-4) 13/5 (2)
5. W (2-2) 19/21 19/23 12/14
6. B (6-6) 13/7 (4)
7. W (4-3) 12/15 12/16
8. B (4-4) 8/4 (2) 7/3 (2)
9. W (5-1) 19/24x 12/13
10. B (1-1) Bar/24x/23x/22x/21x
11. W (6-5) -0-
12. B (5-5) 7/2x (2) 6/1x (2)
13. B (2-1) 8/6 21/20x
14. B (1-1) 20/19x.18x/17x/16x
15. B (1-1) 16/15x/14x/13x/12x
16. B (6-6) 12/6 6/off (3)
17. B (6-6) 6/off (2) 5/off (2)
18. W (2-1) -0-
19. B (5-5) 4/off (2) 3/off (2)
20. W (2-1) -0-
21. B (4-4) 2/off (2) 1/off (2)

Mr. Margosian cleverly put White on the bar against Black's closed board at move 12. White was not required to roll or play until move 18.



Unfortunately, this solution failed to meet the implied criteria: a player's "move" was meant to be taken as his "turn."

One of the lesser-known rules of backgammon states that a player does not lose his turn when he is closed out on the bar. He still has doubling privileges; he can even roll the dice, should he desire. Therefore, in Mr. Margosian's example, White's "moves" while on the bar should have been recorded as "No play," or -0-.

Backgammon: The Cruelest Game, by Barclay Cooke and Jon Bradshaw (page 195) and **Winning Backgammon,** by Michael Lawrence (page 124-125) give game recording examples supporting my prior statements.

So the offer remains: $500 to the first person who can solve the "Ultimate Backgammon" in twenty-one "turns" or less. ☆☆

LAUGHGAMMON

Three men waiting to enter Heaven. St. Peter greets the first man. "What was your occupation?" "I was Pope," the man replies. St. Peter welcomes him and escorts him to his quarters — a grubby little cubicle.

St. Peter then asks the second man his earthly occupation. "I was a Backgammon Player." "Come in, welcome!" says St. Peter, and escorts him to a lavish suite.

The third man is puzzled. "St. Peter, the first man was Pope, yet you stick him in that hell hole, the second was only a Backgammon Player, yet you've given him a suite. Why?"

St. Peter says, "Son, we have 65 Popes here, but that's the first Backgammon Player!"

STATIONARY APPROACH

by Jeff Ward

Black can put the finishing touch on his "blitz" by covering the blot on the three-point. If Black succeeds, he paralyzes White; and since White lacks an effective blocking structure, there is little to prevent Black from bringing the rest of his men safely home. With two of White's men on the bar and seven more in the outer boards, White's only real hope of saving a gammon would be the slim possibility of hitting Black during the bear-off.

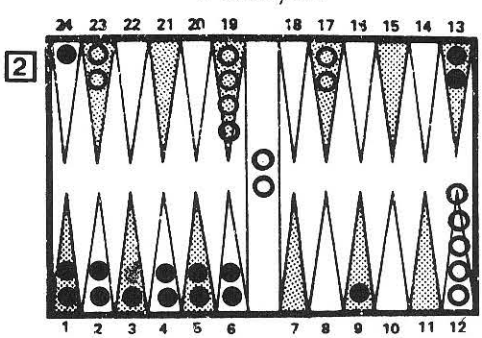
Black needed a 6 or 10 but rolled 3-1 instead; and he must now find some useful way to play this roll. He can immediately reject safetying the blot on the three-point or advancing his back man.

With his opponent almost completely helpless, Black should concentrate on offense with the goal of completing the close-out and winning an easy gammon. Black's objective should be to arrange his men so that as many rolls as possible cover the three-point if White fails to enter.

In the diagram Black has 6's and 10's which hit, or eighteen rolls in all (6's plus 5-5). Obviously, moving 13/9 fails to add any rolls since Black still has only 6's and 10's.

Moving 13/10, 9/8 helps somewhat. Although Black must move the man on the nine-point, now perfectly placed, and still has only one man within direct range; he does add 7's to

X to Play 3-1



his arsenal of good rolls, increasing his total to twenty-one.

A better play, however, is 13/10, 4/3, switching points. By moving the target from the three- to the four-point, Black's two nearest men are left six and five points away — the ideal arrangement. Now twenty-eight rolls hit the target, an improvement of more than fifty percent over the status quo. Black thus becomes the heavy favorite to snuff out all White resistance on the very next roll.

Black risks virtually nothing by switching points as the odds of White rolling a 4 are exactly the same as a 3. And if things go badly, and White makes a point in Black's home board, Black's chances are about the same whether White makes the three- or four-point. ☆☆