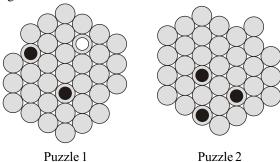


the ability to look a little further ahead. With so many possibilities I find the easiest way to do this is what I call "applied wishful thinking"—first imagine the board and balls as you want them to be, then figure out a sequence of moves which will create that pattern.

It is not always possible to exchange five balls for two whites, but you should look hard for such an exchange. If you cannot find a good sequence of moves, you must add another ball to the board; now your opponent may be able to win by exchanging eight balls for three whites in a single sequence.

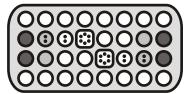
Puzzles

In the following puzzles you are aiming to get two white balls. Give the minimum number of balls to your opponent to achieve this, without exceeding two grey and three black. Good luck! See page 29 for solutions.



When not actually playing games, Stephen Tavener can be found reviewing abstract games for Games, Games, Games magazine; trading used games over the Internet; or practicing Tai Chi Chuan... at which he expects to become competent in another 30 years or so. – Ed.





the beauty is in complexity

by Alex de Voogt

Once a player has understood the complexities of capturing in Bao, the main strategy would seem to be to find the most effective capture. Although this will take much practice and will challenge one's knowledge of the capturing rules, it appears that moving without capturing, or *takasa*, is more daunting.

A situation in which a player has few options is beneficial for the beginner. Each option takes thinking time, and if there are many options, it may be beyond the calculating skills or stamina of the pupil. A situation in which one cannot capture is commonly more complex. The complexity is due to the number of possible moves, since if one cannot capture one can choose any occupied hole from the front row and sew this in either direction. A maximum of 16 choices, although rare, may occur, but even eight choices would be too much for the inexperienced player. Frequently, a player will give up and play a move he was able to calculate and that seems all right, without looking further for the best move on the board.

Apart from the many options for a *takasa* move, the rules for *takasa* appear problematic as well. The joy of capturing is frequent, and the infrequent *takasa* moves give one scarce opportunity to practice the proper hierarchy of rules. In the *namua* stage, where seeds are still being entered into the game, the rules are as follows:

- •Choose any occupied hole containing more than one seed from the front row, and sew the seeds in either direction until the last seed falls into an empty hole. But here it comes:
- •Unless the house is still in place, in which case you can choose holes containing one seed only (singletons) as well.
- •Unless there are no holes with more than one seed, in which case you may also choose a singleton.
- •Unless the house is the only remaining occupied hole, in which case you play the house as a singleton, meaning you enter with one seed and you spread two seeds in either direction.

It is usually necessary to add the following:

- •Unless you can capture, in which case you must capture.
- •Unless there are no seeds left in the front row, in which case you have lost the game.

Rules for the second part of the game, called the *mtaji* stage, are not much different. By definition there is no house—the house becomes an ordinary hole with no special rules. Also, in the second part of the game the back row can be played. These factors change the rules as follows:

- ●Takasa, as above.
- •Unless there are only singletons in the front row, in which case you play a hole with more than one seed from the back row.

This is an obvious rule since singletons can never be played in the second part of the game. We may add:

•Unless there are only singletons in both front and back row, in which case the game is lost.

It is possible that there is only one occupied hole in the front row and that this hole is a *kichwa*, at the far end of the row. In either stage of the game is it not allowed to move the seeds of this hole towards the back row and leave the front empty. This is not allowed even if the move would return to the front row so that it was only

temporarily vacated.

A lost game is now defined in a number of ways. The game is lost if the front row is empty or if it is even temporarily empty. The game is also lost if a player has only singletons left in both front and back rows in the second stage of the game.

These rules are difficult to understand if one regards them as an unconnected list. However, Bao rules are structured according to a hierarchy, which explains why the exceptions always list the same things in the same order: singletons, the house and the front row. (This last item may come as a surprise, but remember that the front row must be played first in case of *takasa*.) In the case of capturing this hierarchy is partly lost. In sum, the *takasa* rules read as follows: empty a hole with more than one seed; if this is not possible play a singleton; if there is no other way play from the house; and in the second, or *mtaji*, stage you may try the back row.

A championship rule concerning lost seeds displays this same hierarchy. It sometimes occurs that the player who started runs out of stock first in the *namua* stage. This irregularity may have been caused by an incorrect division of the seeds initially or by some other kind of fumble. In order to correct this error, the starting player gives a seed from his stock to his opponent. If he has no stock left, he gives him a seed from his back row, if possible a singleton from the back row, otherwise a seed from a bigger hole. If his back row is empty, he gives him a singleton from the front row, or else a seed from another hole if there are no singletons. Although these are not rules for general application, they illustrate the wider application of the hierarchy.

Derived, linguistically and otherwise, from *takasa* is *takasia*. This may be translated as 'to *takasa* someone.' The reader should be aware that this rule is practiced by experienced players only since most beginning players will either miss or misinterpret this situation when it comes along. The situation of *takasia* is rare, but it can prevent a player from 'spoiling the game.'

When a player plays *takasa* in such a way that his opponent cannot capture *and* that the player will be able to capture in his following move, then the *takasia* rule obliges the opponent to leave this hole to be captured in the next move. Reading the rule carefully, we can see that this situation can only occur in the second stage of the game. If a player can capture in the first stage, then by definition his opponent can capture, too, and the rule does not apply.

The *takasia* rule helps players to gain an advantage in the second stage if they master the art of *takasa*. A player can move in such a way that his opponent cannot capture either, and then the player will be able to make a capture on his next move. As soon as this situation occurs, the opponent cannot empty the *takasia* hole, and has to allow the capture to take place, except in special cases:

- *Unless he can capture.* (This is obvious, but frequently forgotten by beginners.)
- *Unless it is a singleton.* (Since singletons may never be moved anyway, *takasia* rules cannot apply to them.)
- *Unless it is the only hole in the front row that is not a singleton.*
- •Unless it is the only occupied hole in the front row.
- •Unless it is the house.

This all makes sense apart from the last exception. Before we discuss the house, however, there is another problem. What happens if a player duly plays another occupied hole in his front row, but during the spreading ends up in the *takasia* hole? This situation is easily resolved by analogy to the rules of the house. The move simply stops at the *takasia* hole, so it does not get emptied. In other words, only the size of capture changes.

The last exception speaks of the house, while a *takasia* move may only occur in the second stage of the game. In the second

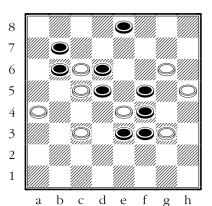
stage of the game the house should be gone. Well, this is true, but the situation is a trifle more subtle. The full story of the Bao rules shows convincingly that the rules of Bao have not simply been invented, but have been agreed upon and refined after much experience at the master level. For a player who cannot even calculate his next capture, there is no gain in the application of this rule, except when it gives him the occasional lucky break. Only masters insist on this way of playing since it allows the best player to win, instead of the player who, often beyond anyone's calculation, finds out that fortuitously he can *takasia* his opponent's house. Therefore, the rule excludes the house.

What house? Well, the house is considered to continue existing at the start of the second stage of the game until a capturing move is made. In other words, if the first moves of the second stage only involve *takasa* or *takasia*, then the house is still in place and protected from *takasia*.

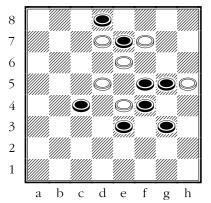
For once in games, the beauty is in complexity. ■

Thus does Alex de Voogt's Bao series come to a close. If you have followed the Bao story through AG4 and AG5 up to now, you should be able to play Bao, the King of Mancalas, according to full championship rules—or you may simply marvel at the game's complexity and sophistication. Another great four-rank mancala is Mweso, and it has much simpler rules. Sometime in the next couple of issues we are planning to present the official rules of Mweso as played in Ugandan championships.—Ed.

Lines of Action Puzzles by Jorge Gomez Arraussi



Puzzle 1 - Black to play and win in three moves.



Answers on p. 29.

Puzzle 2 – White to play and win in three moves.