

New Ideas on LOA (1) by Ralph Betza//viale Zara, 114 // 20125 Milano, Italia

The rules of LOA (Lines of Action) are: There are two players, Black and White, who play alternately. Black moves first. The initial position has Black men on b1-g1 and b8-g8, White a2-a7 and h2-h7 (12 pieces each). The object of the game is to connect all of your pieces into one group. Two men form a connected group if they are on adjacent squares (that is, if one of the men were a chess King, it would be able to move to the square occupied by the other). The men may move in any of 8 directions (the same directions as a chess K or Q). The peculiarity of this game is that the number of squares a man may move in a given direction is determined by counting the number of men of either color along that line of action. Example: In the initial position, legal first moves are 1.b1-b3,cl-c3,dl-d3,etc.,bl-h1,gl-al,bl-d3,cl-e3,dl-f3,el-g3,flxh3,et cetera (and the symmetrically equivalent moves of the 8th rank men). Note that in the example we have introduced 2 new rules; you may move through your own men, but not through your opponent's men; you may capture an opposing man by moving to the square it occupies, but you may not capture your own men. A few example moves: 1.d1-b3,h3-e3 2.b3xe3,h6xe3 3.clxe3,a7-d4 4.glxd4,a4xd4 5.el-e4,h7xe4 and we will return to this position in later discussions. One last rule: if the move which unites your men also unites your opponent's men (by capturing his last isolated man) the game is drawn. Stalemate is almost impossible in an actual game.

Before I discuss the new ideas of LOA strategy which I have developed, I will summarize the thinking of the classical school. Most of the classical ideas are at least partially valid, and the technical terms introduced are still needed.

CLUMPS this refers to the number of disconnected units (groups or single men) had by each side. In the initial position each side has 2 clumps, but after the normal opening move 1.d1-b3 Black has 4 clumps. Since the object of the game is to have only one clump it seems logical that the less clumps you have the better off you are. Actually, this has little practical application, and players who habitually count clumps often reject good moves which increase their clumpcount.

COUNTING "It takes him 5 moves to connect but I can do it in 4," says the classical player to himself, and he rushes to connect, having considered as possible defenses only the other player's connection attempts. This is because the classical player sees LOA as a race to connect. When his opponent calmly sets up a deadly blocking move or a capture that cuts the classicist in two, the classicist does not learn his lesson, but merely curses his luck.

CAPTURES "The less pieces you have, the less pieces you have to connect" says the old school, and therefore believes that captures are to be avoided. In fact, the more pieces you have, the more men you have to block with, the more mobility you have, and further the more men you have to connect WITH!

LENGTH if you think of the game as a race, it is natural to think that long moves are better than short ones. This idea has some validity, but important moves count for more than aimless long ones. In fact, it is often good to move a man one square in the opening because it creates flexibility.

CROSS-RUSH is the classic racing strategy, seen in the example game above. The idea is to leave one of your original clumps at home while the other 6 men run swiftly across the board to join it. As you see above, the runners try to get themselves captured in order to reduce the number of men that have to make the trip. The cross-rush is a losing strategy because of the "weakness of the original position" (a subject I will handle more fully later). In the above example a winning plan for W would be a5-c7,h5-f7,a2-d5,f7-d7,d4xd8 or similar ideas. Fuller discussion of this will follow.

CENTRAL BLOCK is the strategy of advancing into the center from both sides in order to unite there. Presumably the opponent will find it hard to connect around the outside of your block. This is essentially the correct strategy of LOA, except that the classical ideas of "center" and of "block" were too narrow.

BRIDGE is a lovely strategy which can't be forced. The idea in its simplest form is to move men from both your original clumps, preferably from the ends (for Black, blclglh1b8c8g8f8) so that you don't split the original clumps into too many pieces, and form the men you have moved into a long, thin chain which stretches from one side of the board to the other and connects your groups. It is possible to connect in as few as 6-10 moves with this strategy. Advanced concepts of bridging will be the last topic of this series.

New ideas on LOA (2) by Ralph Betza // viale Zara, 114 // 20125 Milano, Italia

This month we begin on the new ideas I hope to explain.

CUT is a term borrowed from Go to describe a capture which disconnects the opponent's men by removing a critical link of his chain. In the initial position 1.clxa3 cuts the chain a2a7 into 2 groups, but it is not very effective because W can simply reply 1...a2-c4. Of course in many midgame positions a simple cut can cause the opponent a lot of trouble, but particularly in the initial stages of a game the cut is more effective when combined with a blocking move. In the above example the capture clxa3 would be better combined with a Black man on b3, as the reply ...a2c2 does not bring that man fully into the game. An even better cut would be to play 1.bl-b3 with the idea of 2.dlxa4. The failure of the cut at a3 is that it leaves a one-man clump at a2, which is relatively easy to get back into the game (in fact by encouraging White to mobilize his man at a2 you help him play correctly). A cut at a4, however, creates a 2-man clump which needs more moves to get into play, and it tempts W to try to reconnect by either playing to b4 or by recapturing a4 -- both of which plans will tend to detract from his mobility. A combined cut/block such as a3b3 or a4b4b3 will be called a

WEDGE. Here's an opening based on a wedge: 1.dl-b3,h3-e3 2.cl-c3,a7-d4 3.e1-b4,h2-f2 4.g1-d1 (threatening the wedge at a4),a2-c2 (now c2 is a

FROZEN MAN because if it moves away it allows the capture at a4. Now 5.bl-b5, pressing down on the a3a6 group thus limiting its mobility. 5...h5g4 threatens to cut at b4 but allows Black to gain THICKNESS by 6.fl-c4. His group of b3b4b5 c3c4 is "thick" because the capture of any one man is insufficient to cut the group. W now plays 6...f2-d2 to stop dl-d4 and try to isolate dl. Also important is that because the man at c2 was frozen, White was induced to try to bridge to it (moving others of his pieces over to connect to it). Now White wants to connect his groups in the area of b2, while Black also wishes to play in this area both to block White and to connect with dl. (7.dl-f3 is unattractive because it moves away from the action.) The area around b2 has thus become a

CENTER OF GRAVITY. In effect, the "center" in the game of LOA is not the geometrical center of the board, but is rather a shifting area determined by the actual position, towards which area the pieces of both sides wish to move. By playing 7.b8-c7, Black conquers the center of gravity around b2 because of his threats of c7xc2 or b5-b2 or d8xa5. However, White shifts the center by playing 7...d4-b6. Now after 8.c7xc2 he can play e3-c5 and try to connect around the other side. This may still be good for Black, but since the move to b6 will make it more difficult for W to connect around b2 (he can no longer shift a4-a2 and a5-a1) we'll continue the example game by having B play 8.f8-c5,h4xc4 9.g8-d5. Note how the outlying pieces run towards the center of gravity.

DISTANCE just what is White's problem now? The start of it is the chain on the a-file; because it is thin and is pressed down against the side, it is extremely vulnerable to a wedge on a4 or a5. W can't permit such a wedge, for in that case the only hope for him would be to bring each half of his former chain out into the center (one half around each side of the wedge), but it would take him so many moves to do so that he would have no hope. Therefore he has accepted frozen men at c2 and b6 in order to prevent the wedge. He could try to release one or both of the frozen men by shifting his chain past the wedge-point; for example after a3-a7 he could move c2 away, or after a4-a2 he could move b6. Since these two plans don't look too promising he must consider c2 and b6 as frozen, fixed points and it is the DISTANCE between these points that troubles him. As c2 and b6 can't move, he must try to build a bridge between them using his chain on the a-file. He can't play d2b2 because of dld4, and also must worry about d8d4 and d5c6. He tries to develop another piece with 9...h6-h4 threat g4xb4 10.d8-d4,a6-c6 11.dl-f3 threat f3xc6 and prevents g4-e2, 11...c2-e4 12.f3-f4 and Black must win soon.

This is not all of the new theory, but I don't think there's space to start new topics. The most basic and important idea of this month's article is that of the "center of gravity" and how it shifts. Generally, the player with the superior mobility will be able to win by changing the center of gravity as often as needed. In the above example game, his last 2 moves shifted one of the sub-centers from the neighborhood of b2 to that of e5, with multiple effects.

New Ideas in LOA (3) by Ralph Betza / viale Zara, 114 / 20125 Milano, Italy

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***BLACK MOVES**

At the left we have the LOA problem position given by Phil Cohen in N.A. 217, May 1978. Despite the fact that Phil is a pretty good LOA player, he spent "hours" on this position and yet had a lot of trouble finding the right move. I will use this position as an example to try to show how a strategical analysis of it according to the new ideas I am trying to explain should reveal the right procedure after only a few minutes of thought. A single glance at the position is enough to see that Black has a great advantage, but to understand the situation we must ask ourselves just what are the elements of which this advantage consists, and what are the danger points. First, he has 11 men to White's 8, which will give him more mobility (more choices) and make it easier for him to block and separate the opponent's men. Second, he has a nice blocking/bridging structure in the center, which, however, has weak points at c4 and d5. Third, it is his turn to move. His problems are: the undeveloped state of his 8th rank (and therefore the psychological danger that he will let this rank stand where it is out of reluctance to break up a "clump", thus sacrificing the mobility of 5 men), the fact that he has no useful moves to the 7th rank (this is a new idea, FLEXIBILITY. Interesting, though, is 1.d5b7,a5d5 2.b8b5,e5c7 3.d8e7), and the cut at c4. White's advantages are his bridge at e5d6c5 which gives him some hope of connecting through Black's block, and the cut at c4; his disadvantage, other than those already mentioned, is the DISTANCE between his men at a3 and f7 (and perhaps also the man at a7). The man at f7 may not move because of the reply f8f7, and the man at a3 has no useful move (a3b2? b8b5! or a3c3 so what?).

Now, if you have been following the previous articles, you will already be asking the next question in the analysis, "Where is the CENTER OF GRAVITY of this position?" At first glance this position seems to come as near to lacking a center of gravity as any LOA position can come. But consider: a6xc4 is White's most important resource; the man at b4 is more or less FROZEN, as 1.b4b6?? for example allows a3e7 which solves White's DISTANCE problem and almost equalizes; and no strong player could look at this position for long without feeling an overwhelming desire to move a Black man to b5. In fact, my first 2 tries here were 1.c4a6 intending a6b5 and 1.c4a4 intending e8b5. I didn't write down my analysis, so I don't know why I rejected them, but I suspect they just kept the advantage without being sufficiently convincing. By exhaustion, we have 1.c8a6! and wins.

Why do I say "by exhaustion"? Because after our strategical analysis we should be willing to consider only moves towards the center of gravity which either stop a6c4 or prepare to occupy b5. What are the effects of c8a6? There is a concealed intention of a future a6d6 (capturing W's strong point), the 8th rank has begun its development, and we have added FLEXIBILITY by allowing e6 to go to d7 or f5 and a6 to b7 (getting on to the 7th rank and planning b8b5). In fact, we excitedly discover, there is a vicious tactical threat to connect by (on the left side) a6b7 or b8b6 and (on the right side) e6d7 or d8e7! Therefore, White can only survive by threatening 2...a5d5, so his reply must be either 1...c5e3 (only legal move by this piece) or one of the 5 legal moves of the man at e5 (to b8, c3, e2, h2, or g7). All these moves break up his good formation of c5d6e5, thereby increasing his disadvantage. Now some concrete analysis:

1.c8a6!,c5e3 2.e6f5 (defends d5, threatens d6. 2.d5a5 also looks good.),e3e6 (2...e5e8 3.b8d6!(d5a5! or f5c5? or b4b5!) and if a5d5 4.f5d5 wins soon, else 4.f5c5 etc. or 3...a7c5 or e3c5 4.f8e7) 3.c3e5 (Augmenting material edge and aiming to occupy b5),a7b6! (threatening a3a6+, winning, or a5d8 then d8d5, disorganizing Black's game) 4.e5d5! (Now a3 is really cut off, and both e6 and d6 are threatened with capture.) ,e6e8 5.b8d6,e8c6 (b6b4 6.f8b4+) 6.f5c7+,b4b6 7.d8b6! and if b4b6,f8b4+ connects, else 8.b6b4 and connects easily. Note that after all the fireworks a3 and f7 remain unmoved. In fact W's only serious threat was to move a3! 1...c5e3 is the most spectacular line.

1.c8a6,e5b8 2.d5b7,a5c7 3.e6d7+ (threat c3a5. If a3a6 4.b7d5)//1...a5a7 2.c3e5 //1...e5h2 2.e6f5,h2g2 3.a6b7,a5c7 4.d8e7+ // 1...e5e2 2.e6f5,a5c7 3.c3a7,e2d1 (W is in virtual zugzwang) 4.d8e7 (threat a6b7) ,a7e7 5.f8c8,c7a3 6.f5d7,dld5 7.a6d6+ and there's no stopping 8.c4b5. // 1...e5c7 2.e6f5,a7c7 3.a6a5,c5b6 4.f5c5,a5a7 5.e8e7,a7e7 6.b8e8 (threat f8d8) ,b6b8 7.f8b8,c3e3 8.b6b8 and 9.e8c8.

Most of the analysis is rather rough, and you may find better moves.

The Praxis of my LOA system, by Ralph Betza / v. Zara, 114 / 20125 Milano, Italy

I will continue my discussion of new strategic ideas in LOA by presenting a few annotated games. The first is LOA-44 B, Walt Roessner vs. me. The game began in 1973, before I had developed these new ideas, and is thus a rather negative example. 1.f1f3,h5f7 2.b8b6,h6e6 3.b1d3,h2f2 4.b6e6,h3e6 5.d8d5,h4e1? (White is playing planlessly, trying to make "long" moves, and is being tricked into using the "cross-rush" strategy. Indicated is 5...a7d7 and 6...h7e7, trying to slow Black up a bit. In fact, this plan should have been initiated on move 3.) 6.c8e6,h7f5 7.d1d4,f5d3 (W has conceived a grand plan of rushing down to the lower left and uniting there while isolating c1. This kind of bold but unsound strategy often brought impressive results against weaker players.) 8.c1d2,f7f3 9.e8c6,f3c3 10.g8c4, (Now the flaw in W's plan is evident. His rigid line on the a-file will be split at a4, after which he will need many moves to reunite his men.) ,d3c2 11.d4a4,a6c4 12.a4c4!,e1e3 13.d2d4,a2d2 (W has spent a lot of time analyzing since his 10th move. Now 14.d5d2 would disconnect Black and isolate d2. W hopes to play c2d3,a7a4,d2b2 connecting, but B can defend easily.) 14.g1h1,a3c5 (forced, else B simply connects first) 15.h1e4??,a5d5 (15.c6b5,d2g2 16.h1h2,e3g3 17.h2h3,g2g4 18.h3h4 should still win. The progress that W has made in the last few moves is shown by the fact that B now must go through such contortions to win. In any case he should certainly not have allowed the capture at d5. The last several moves of the game are very pretty and required precise handling, in fact I'd say that a classic ending commences here.) 16.f8f6,c2e4 17.f6c3,a7a6 18.c3e3,a6c4 19.e3g5,c5d6 20.e6f5,d6e5+ 21.g5e3,c4d3+ 22.Resigns(The point d5 remained critical to end)

LOAT175 B, Roessner-Betza 1.d1b3,h4f2 2.f8f5,a5d5 3.b1e4,h7f7 (Both players are trying to occupy central points while developing in a balanced fashion from the 2 halves of each position.) 4.g1g3,h2e2 5.g3e5,a2d2 (Changing the center of gravity! The squares in the geometric center of the board are no longer the focus of activity, as Black must now try to break the wall or go around it, while White tries to defend it.) 6.d8d5,a6d3 7.e8e3,a3b4 (Stops 8.b8e8/9.e8e2, but now I wonder why not 8.e4b4! in reply?) 8.e1h1,h5f3 9.e5d4,f2e1! (B having missed his chance to change the center of gravity by e4b4, W can now pile up on the B central formation. The B men on the 1st and 8th ranks are out of play (at best), but W's peripheral men turn out to be well-placed.) 10.c8c6,a7d4 11.c6c4,d4c3 12.Resigns. Slightly premature but justifiable.

LOAT175 B Wally Whiteman-Betza 1.d1b3,h4f2 2.b1b4,a2d2 3.c1c3,h3d3 4.f8c5,h7f5 5.b8b5,h2e2 (Both sides are following the same plan!) 6.d8d5,a6c6 7.c8e6,h6e6 8.g1d1,a4a8 (Now both players are trying to escape from behind the wall. W is doing a little better, as he threatens a8d5 then d5d1 and can capture any B man played to c2 or b2. 7.c8e6? merely lost a man and helped W develop.) 9.f1c1,a8d5 (This should have been prevented. Now if 10.e1b1,a3c1 (threatening to occupy c2) 11.c5c1,a7c5 (threat h5b5) and wins due to the men on eg8.) 10.c3b2,f2c5 11.c1c4,h5b5 12.e1c1,a3a6+ 13.c1c5 (his 1st capture),a7c5+ 14.b4d4,c6e4#

LOA 57 B Creede Lambard-Betza 1.d1b3,h3e3 2.c1c3,a5c7 (prevents e1b4) 3.b1b4,h7e7 4.b8b5,a7d7 (The best defense against a wall is to build one of your own. Trying to break through it creates a center of gravity in an area in which he has the advantage, but the long-winded maneuvers needed to escape from behind the walls give you plenty of time to equalize.) 5.g1e3,h4e4 (Stops e3e7, threatens e4b4) 6.f1c4,a6c6 (defends c7) 7.e1d1,a4a7 (Mustn't permit the wedge d1a4) 8.d1d4?,a7d4 9.e3a3,a2b1 (Now W looks good, he's already out from behind the B wall. However, 10.a3e7 wins. Good strategy will not save you from a tactical oversight. 9...d4c5 was necessary, but the W position would still be precarious because he needs another piece or 2 near his wall.) 10.c4a6?,b1d3 11.g8b8+,d4d8 (Now W is winning, the wedge is too strong.) 12.a3a7,d3d6 13.b3b7,e4e7 14.b8a7,h5f7 15.b4b7,f7e6 (Note how W continually adds to his wedge and outflanks the split B groups. This is how to capitalize on a wedge for a SAFE win.) 16.c3d2,h6f4 (defends d6 with h2 and threatens f4e4+.) 17.d2f4,h2g2+ 18.f4e4,g2f2 19.a7c5,f2d4+ 20.Resigns. The near-disaster at move 10 suggests that there are as-yet-unplumbed depths to the wall-vs.-wall confrontation. W was too eager to get out from behind, and as a result B was ready to break W's wall as soon as W had escaped from B's wall. Better to go wedge-vs.-wedge than escape too soon.

LOATf73 Betza-Roessner 1.d1b3,h3e3 2.b3e3,h6e3 3.c1e3,a7d4 4.g1d4,a4d4 5.e1e4,h7e4 6.f1d3 (This interesting plan was first played by D.Grant vs. me. I give this game as the refutation.) ,a3c5 7.b1e4,h4e4 8.g8e6,h5e5 9.b8e5,h2f4 10.e6c4,e4d5 11.c4c1 (desperation) ,a2c4 12.Resigns. Opening theory is born.

The Vital Points of LOA, by Ralph Betza / v. Zara, 114 / 20125 Milano, Italy

For my 5th article on LOA I will concentrate on one new idea which I haven't so far touched on because it is so difficult to explain -- the VITAL POINT. This is very much the same as the Go idea of the same name, as you might suspect.

A VITAL POINT is a square which, if occupied by you, is likely to impede your opponent's plans and aid your own. When I discuss it in these terms I wish to refer not to obvious blocking points, cutting points, or connecting points (though these, too, are vital points) but rather to those pivotal points whose identity is not easily individuated except by the use of intuition, to those unobvious squares which prove useful only several moves after they are occupied.

Not only is it difficult to put the concept of the vital point into words, but there are few games which provide a really clear example -- however a constant sense for the vital point is needed to play LOA really well. The following game, LOA Tf73 B Roessner-Betza, has been annotated with special attention to this difficult idea. In addition, the new idea of BALANCE is discussed a bit.

***1.e8g6 This already occupies a bit of a vital point, as it impedes the movements of h7h6h5. Years ago, when LOA was new, Paul Yearout had the insight that any point next to either player's initial position is likely to be a V.P.

***1...a6d6 Standard reply, but the symmetrical a5c7 may be better.

***2.glg4 Unusual, but not necessarily bad. 2...d6g6 might be the most logical reply, according to PY's dictum. More aggressive is 2.f8f6, to which I reply h4f2. PY and Phil Cohen play 2...d6g3?! (seems unbalanced) 3.d8g5,a7c5 unclear.

***2...a4d4 Mechanically playing a "long" move, but at least it occupies a central square and can't be captured. 2...h2e5 is better balanced. BALANCE is the simple idea that in the opening you should develop both halves of your initial position equally. I only discovered this idea while playing over games for this series of articles, and I think the reason I always get disadvantages from the opening vs. Roessner is that he has discovered balance, and I hadn't. One thing about balance is that it keeps you from being tempted to try a cross-rush!

***3.ble4 Occupies center, defends g4. However, g4 was already defended by d1. Perhaps 3.f8f6 or 3.g8e6 or even 3.g8g5 -- not to say 3.ble4 is bad...

***3...a5c7 alternatives are h2e5 or d6g6, but c7 is a good blocking point against b8 and also prepares h7e7 blocking d8. Furthermore, I already had a sense of f5 as a vital point, and this was part of a plan to take it away after B occupied it. The position is already dangerous for W due to his undeveloped h-file.

***4.c8f5 Vital point. If h5f5,f8f5. f5h5 likely to be strong. General observation: c5c4d3e3f4f5e6d6 more likely to be vital points than e4e5d4d5.

***4...h7e7 A standard rule of counterplay is to create a second center of gravity rather than aiming at the COG chosen by the opponent (in which he presumably has the advantage). Therefore I block d8 as every fixed point is a COG.

***5.g8e6?! I'd prefer 5.g8g5, for if d6g6 6.d8d5 threat wedge h5.

***5...h6f8: Double threat on vital point f5. Culmination of White's plan.

***6.flf4?! A good practical rule is that if you can't defend a vital point, you should abandon it willingly and seek compensation elsewhere. 6.f5h5!/6.flbl, a2c2 / 6.elg3 threat e4e7 / 6.g6d6! would all be better.

***6...h5f5 I felt greatly relieved on making this move. A position which could so easily have been lost is thereby at least equalized. 6.f8f5 is less balanced.

***7.ele5? Maintaining his connection, but now this formation is immobilized and becomes a target. 7.g6d6 equalizes. Flexibility of plan is always needed.

***7...a3a6! Defends d6 and attacks e6. Position = but W has initiative.

***8.g6f7 Seems passive, but if left alone, B unites by b8e8/cle3/flf3.

***8...h3h6! Vital point is e6 to isolate d8. Ties down c1 to prevent h6f4 and cle3 no longer legal. Develops h-file (h2 will come to h5 threatening e5).

***9.b8b7 If 9.f7g6,h2h5 10.e4d5,a2d5 11.b8b7,d5b7! (give up one strong point to take another, threat h5e5) 12.cle1,h6f4 (threat a6e6) etc. and wins.

***9...a6e6 Assuring victory. While B tries to rescue d8 W will attack the B formation while drawing his men closer together. Threat a2d5, therefore forced

**10.b7d5,f8c5 W connects at vital point, avoids capture. 3-man superiority.

**11.dlc2,h4h7! W can't defend c5 but will take compensation at f4 and e4.

**12.clc5,h6f4 13.g4f3,h2g1 14.c2a2,glc5 15.f3c6,h7e4+ 16.Resigns.

In effect, the Vital Point is a more localized form of the CENTER OF GRAVITY and harder to foresee. Next article in this series will be a glossary of terms,

followed by "Hyperhypermodernism, or how to combat the new ideas."

Anything But Chess

by Tracy Cobbs • 111 Marshall St. • Hartselle, AL 35640

Contrary to the announcement at the end of my last article, *Star* is not the subject of this issue's column. Those of you who want to find out more about the game are referred to the September 1983 issue of *GAMES* magazine and issue #1 of Michael Keller's *World Game Review*.

This column and the next two will be devoted to reprinting Ralph Betza's classic articles on Lines of Action strategy, "New Ideas on LOA", which ran in *NOSTalgia* issues #221-225. For those of you who have seen this material before and are bored by the repetition, I can only offer the plea I sent out in my first column: Send me info on games, strategy tips on your favorite games and transcripts of your best games.

New Ideas on LOA by Ralph Betza

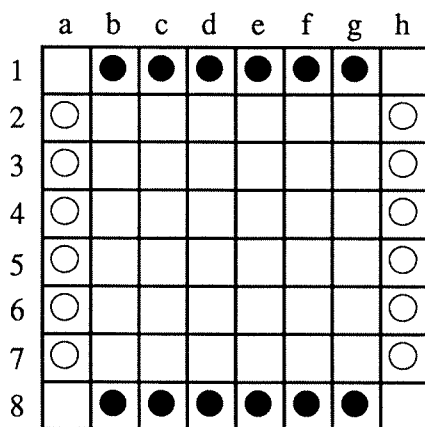


Diagram 1

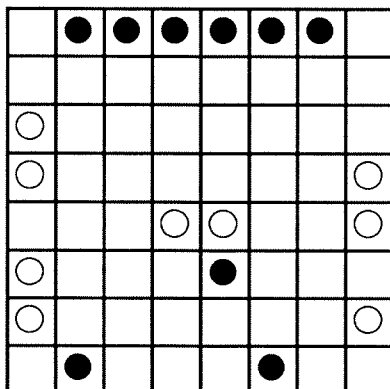


Diagram 2

The rules of Lines of Action are: There are two players, Black and White, who play alternately. Black moves first. The initial position has Black men on b1-g1 and b8-g8, White on a2-a7 and h2-h7. (*Diagram #1*) The object of the game is to connect all of your pieces into one group. Two men form a connected group if they are on adjacent squares (that is, if one of the men were a chess King, it would be able to move to the square occupied by the other). The men may move in any of eight directions (the same directions as a chess King or Queen). The peculiarity of this game is that the number of squares a man may move in a given direction is determined by counting the number of men of either color along that line of action. Example: In the initial position, legal first moves are 1. b1-b3, c1-c3, d1-d3, etc., b1-h1, g1-a1, b1-d3, c1-e3, d1-f3, e1-g3, f1-h3, etc. (and the symmetrically equivalent moves of the 8th rank men). Note that in the example we have introduced two new rules: you may move through your own men, but not through your opponent's men; you may capture an opposing man by moving to the square it occupies, but you may not capture your own men. A few example moves: 1. d1-b3, h3-e3 2. b3xe3, h6xe3 3. c1xe3, a7-d4 4. g1xd4, a4xd4 5. e1-e4, h7xe4 (*Diagram #2*) and we will return to this position in later discussions. One last rule: A player wins even if, in uniting his pieces, he captures a last outlying piece so that the opponent also has a united group.

Before I discuss the new ideas of LOA strategy which I have developed, I will summarize the thinking of the classical school. Most of the classical ideas are at least partially valid, and the technical terms introduced are still needed.

Clumps—This refers to the number of disconnected units (groups or single men) had by each side. In the initial position each side has two clumps, but after the normal opening move 1. d1-b3 Black has four clumps. Since the object of the game is to have only one clump

it seems logical that the less clumps you have the better off you are. Actually, this has little practical application, and players who habitually count clumps often reject good moves which increase their clump count.

Counting—“It takes him 5 moves to connect but I can do it in 4,” says the classical player to himself, and rushes to connect, having considered as possible defenses only the other player’s connection attempts. This is because the classical player sees LOA as a race to connect. When his opponent calmly sets up a deadly blocking move or a capture that cuts the classicist in two, the classicist does not learn his lesson, but merely curses his luck.

Captures—“The fewer pieces you have, the fewer you must connect” says the old school, and therefore believes that captures are to be avoided. In fact, the more pieces you have, the more men you have to block with, the more mobility you have, and further the more men you have to connect WITH!

Length—If you think of the game as a race, it is natural to think that long moves are better than short ones. This idea has some validity, but important moves count for more than aimless long ones. In fact, it is often good to move a man one square in the opening because it creates flexibility.

Cross-Rush—is the classic racing strategy, seen in the example game above. The idea is to leave one of your original clumps at home while the other 6 men run swiftly across the board to join it. As you can see above, the runners try to get themselves captured in order to reduce the number of men that have to make the trip. The cross-rush is a losing strategy because of the *weakness of the original position*, (a subject I will handle more fully later). In the above example a winning plan for White would be a5-c7, h5-f7, a2-d5, f7-d7, d4xd8, or similar ideas. Fuller discussion of this will follow.

Central Block—The strategy of advancing into the center from both sides in order to unite there. Presumably the opponent will find it hard to connect around the outside of your block. This is essentially the correct strategy of LOA, except that the classical ideas of *center* and *block* were too narrow.

Bridge—A lovely strategy which can’t be forced. The idea in its simplest form is to move men from both of your original clumps, preferably from the ends (for Black b1-c1-f1-g1-b8-c8-f8-g8) so that you don’t split the original clumps into too many pieces, and form the men you have moved into a long, thin chain which stretches from one side of the board to the other and connects your groups. It is possible to connect in as few as 6-10 moves with this strategy.

Now we begin on the new ideas I hope to explain.

Cut—is a term borrowed from Go to describe a capture which disconnects the opponent’s men by removing a critical link of his chain. In the initial position 1. c1Xa3 cuts the a2a7 chain into two groups, but it is not very effective because White can simply reply 1... a2-c4. Of course in many midgame positions a simple cut can cause the opponent a lot of trouble, but particularly in the initial stages of the game the cut is more effective when combined with a blocking move. In the above example the capture c1xa3 would be better combined with a Black man on b3, as the reply ...a2-c2 does not bring that man fully into the game. An even better cut would be to play 1. b1-b3 with the idea of 2. d1xa4. The failure of the cut at a3 is that it leaves a one-man clump at a2, which is relatively easy to get back into the game (in fact by encouraging White to mobilize his man at a2 you will help him play correctly). A cut at a4, however, creates a 2-man clump which needs more moves to get into play, and it tempts White to try to reconnect by either playing to b4 or by recapturing on a4—both of which plans will tend to detract from his mobility. A combined cut/block such as a3b3 or a4b4b3 will be called a—

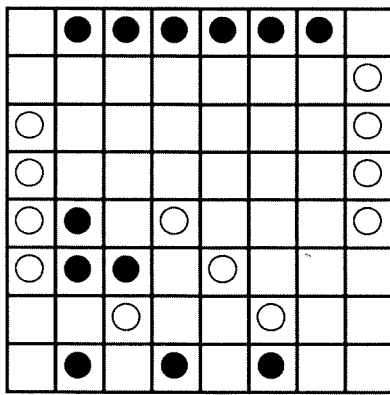


Diagram 3

Wedge—Here’s an opening based on a wedge: **1.** d1-b3, h3-e3 **2.** c1-c3, a7-d4 **3.** e1-b4, h2f2 **4.** g1-d1 (threatening the wedge at a4), a2-c2 (*Diagram #3*). Now c2 is a—

Frozen Man—because if it moves away it allows the capture at a4. Now **5.** b1-b5, pressing down on the a3a6 group thus limiting its mobility. **5...h5-g4** [*Not a legal move unfortunately - TC*] threatens to cut at b4 but allows Black to gain—

Thickness—by **6.f1-c4**. His group of b3b4b5c3c4 is *thick* because the capture of any one man is insufficient to cut the group. White now plays **6...f2-d2** to stop d1xd4 and try to isolate d1. Also important is that because the man at c2 was frozen, White was induced to

try to bridge to it (moving others of his pieces over to connect to it). Now White wants to connect his groups in the area of b2, while Black also wishes to play in this area both to block White and to connect with d1. (**7.** d1-f3 is unattractive because it moves away from the action.) The area around b2 has thus become a—

Center of Gravity—In effect, the *center* in the game of LOA is not geometrically the center of the board, but rather it is a shifting area determined by the actual position, towards which the pieces of both sides wish to move. By playing **7.** b8-c7, Black conquers the center of gravity around b2 because of his threats of c7xc2 or b5-b2 or d8xa5. However, White shifts the center by playing **7...d4-b6**. Now after **8.** c7xc2 he can play e3-c5 and try to connect around the other side. This may still be good for Black, but since the move to b6 will make it more difficult for White to connect around b2 (he can no longer shift a6-a2 and a5-a1) we’ll continue the example game by having Black play **8.** f8-c5, h4xc4 **9.** g8-d5. Note how the outlying pieces run toward the center of gravity.

Distance—Just what is White’s problem now? The start of it is the chain on the a-file: because it is thin and is pressed down against the side, it is extremely vulnerable to a wedge on a4 or a5. White can’t permit such a wedge, for in that case the only hope for him would be to bring each half of his former chain out into the center (one half around each side of the wedge), but it would take him so many moves to do so that he would have no hope. Therefore he has accepted frozen men at c2 and b6 in order to prevent the wedge. He could try to release one or both of the frozen men by shifting his chain past the wedge-point; for example after a3-a7 he could move c2 away, or after a6-a2 he could move b6. Since these two plan don’t look two promising he must consider c2 and b6 as frozen, fixed points and it is the distance between these points that troubles him. As c2 and b6 can’t move, he must try to build a bridge between them using his chain on the a-file. He can’t play d2-b2 because of d1-d4, and also must worry about d8-d4 and d5-c6. He tries to develop another piece with **9...h6-h4** (threat g4xb4) **10.** d8-d4, a6-c6 **11.** d1-f3 (threat f3xc6 and prevents g4-e2), c2-e4 **12.** f3-f4 and Black must win soon.

The most basic and important idea of this month’s article is that of the *center of gravity* and how it shifts. Generally, the player with the superior mobility will be able to win by changing the center of gravity as often as needed. In the above example game, Black’s last two moves shifted one of the sub-centers from the neighborhood of b2 to that of e5, with multiple effects.

ANYTHING BUT CHESS

by Tracy Cobbs / 111 Marshall St. / Hartselle, AL 35640

In this issue, we continue our reprinting of Ralph Betza's 1978 series on LOA. I would welcome your comments on these articles. In particular, do you like the idea of a series of articles focusing on a single game or would you prefer more of a hodgepodge in each issue?

New Ideas in LOA by Ralph Betza

	a	b	c	d	e	f	g	h
1		●	●	●	●	●		
2	○					○		
3	○		●	○	●			
4	○		○	●	○			
5		●	●					
6	○		●					
7								
8								

At the left we have the LOA problem position given by Phil Cohen in N/A #217, May 1978. Despite the fact that Phil is a pretty good LOA player, he spent "hours" on this position and yet had a lot of trouble finding the right move. I will use this position as an example to try to show how a strategic analysis of it according to the new ideas I am trying to explain should reveal the right procedure after only a few minutes of thought.

A single glance at the position is enough to see that Black has a great advantage, but to understand the situation we must ask ourselves just what are the elements of which this advantage consists, and what are the danger points. First, he has 11 men to White's 8, which will give him more mobility (more choices) and make it easier for him to block and separate the opponent's men. Second, he has a nice blocking/bridging structure in the center, which, however, has weak points at c4 and d5. Third, it is his turn to move. His problems are: the undeveloped state of his 8th rank (and therefore the psychological danger that he will let this rank stand where it is out of reluctance to break up a "clump", thus sacrificing the mobility of 5 men), the fact that he has no useful moves to the 7th rank (this is a new idea, FLEXIBILITY. Interesting, though, is 1.d5b7, a5d5 2.b8b5, e5c7 3.d8e7), and the cut at c4. White's advantages are his bridge at e5-d6-c5 which gives him some hope of connecting through Black's block, and the cut at c4; his disadvantage, other than those already mentioned, is the DISTANCE between his men at a3 and f7 (and perhaps also the man at a7). The man at f7 may not move because of the reply f8f7, and the man at a3 has no useful move (a3b2? b8b5!, or a3xc3 so what?).

Now, if you have been following the previous articles, you will already be asking the next question in the analysis, "Where is the CENTER OF GRAVITY of this position?" At first glance this position seems to come as near to lacking a center of gravity as any LOA position can come. But consider: a6xc4 is White's most important resource; the man at b4 is more or less FROZEN, as 1.b4b6?? for example allows a3e7 which solves White's DISTANCE problem and almost equalizes; and no strong player could look at this position for long without feeling an overwhelming desire to move a Black man to b5. In fact, my first two tries here were 1.c4xa6 intending a6b5 and 1.c4a4 intending e8b5. I didn't write down my analysis, so I don't know why I rejected them, but I suspect they just kept the advantage without being sufficiently convincing. By exhaustion, we have 1.c8xa6! and wins.

Why do I say "by exhaustion"? Because after our strategic analysis we should be willing to consider only moves towards the center of gravity which either stop a6xc4 or prepare to occupy b5. What are the effects of c8xa6? There is a concealed intention of a future a6xd6 (capturing White's strong point), the 8th rank has begun its development, and we have added FLEXIBILITY by allowing e6 to go to d7 or f5 and a6 to b7 (getting on to the 7th rank and planning b8b5). In fact, we excitedly discover, there is a

vicious tactical threat to connect by (on the left side) a6b7 or b8b6 and (on the right side) e6d7 or d8e7! Therefore, White can only survive by threatening 2....a5xd5, so his reply must be either 1....c5e3 (only legal move by this piece) or one of the 5 legal moves of the man at e5 (to b8,c3,e2,h2 or g7). All these moves break up his good formation of c5-d6-e5, thereby increasing his disadvantage. Now some concrete analysis:

1.c8xa6!, c5e3 2.e6f5 (defends d5, threatens d6. 2.d5xa5 also looks good.), e3e6 (2....e5xe8 3.b8xd6! (d5xa5!? or f5c5?!)) and if 3....a5xd5 4.f5xd5 and wins soon, else 4.f5c5 etc. or 3....a7c5 or e3c5
 4.d8e7 4.f8e7 3.c3xe5 (augmenting material edge and aiming to occupy b5), a7b6!! (threatening a5xd8 then d8xd5, disorganizing Black's game) 4.e5xa5! (Now a3 is really cut off, and both e6 and d6 are threatened with capture.), e6xe8 5.b8xd6, e8xc6 (if b6xb4 6.f8xb4) 6.f5c5+ (b4xb6) 7.d8b6! and if b4xb6, b6xb4 f8b4≠ connects, else 8.b6xb4 and connects easily. Note that after all the fireworks a3 and f7 remain unmoved. In fact, White's only serious threat was to move a3! 1....c5e3 is the most spectacular line.

1.c8xa6, e5xb8 2.d5b7, a5c7 3.e6d7+ (threat c3a5. If a3xa6 4.b7d5≠)
 ...e5g7 2.c3e5

...e5h2 2.e6f5, h2g2 3.a6b7, a5c7 4.d8e7+
 ...e5e2 2.e6f5, a5c7 3.c3a5, e2d1 (White is in virtual zugszwang) 4.d8e7 (threat a6b7), a7xe7

+++++ 5.f8c8, c7xa5 6.f5d7+++ d1xd5 7.a6xd6+ and there's no stopping 8.c4b5 ++
 ...e5xc3 2.e6f5, a7c7 3.a6xd6, c5b6 4.f5c5, a5a7 5.e8e7+, a7xe7 6.b8e8 (threat f8d8), b6b8
 7.f8xb8, c3e3 8.b8b6 and 9.e8c8.++

Most of the analysis is very rough, and you may find better moves.

Italics → Phil Cohen gave this analysis of the problem:

Here's a complete analysis, showing every White move that doesn't allow clump in 1. The winning move is 1.b4d4+. There are three responses that prevent 2.b8b7≠. Two are easy to handle: 1....a6xc8 2.b8b7+++ and 1....e5xb8 2.c3xa5+, a7c7 3.d8e7+, c7f4 4.c8g8++. The most forceful, though outwardly least promising, is 1....a3b2. Many replies should work (2.b8b6^{e7} 2.c8xa6, c5xf8 3.e6d7++; 2.c3xa5⁺), but the most straightforward seems to be 2.e8xe5+, to which there are two replies:

2....f7e8 3.f8f7+++ , a6xc8 4.f7d7++
 2....a6xc8 3.e5e7++, a5xd5 4.b8xd6 threatening d6e5++++, which wins at once against all

but seven moves:

4....c8xe6 or f7g6 or b2a3 5.d4b4++
 4....c8b7 5.d4g7+, d5-any 6.c4xf7+
 4....a7xd4 5.c3b4+
 4....a7d7 5.c4b5+
 4....a7b8 5.e7e5+, f7e7 6.d8c7++

What can we say about Betza's analysis in light of Phil's analysis? Betza was right about the significance of White's threatened a6xc4. Phil's key move of b4d4+ deals with this threat by making it insignificant. By connecting c3 to d5 via d4, the key move removes the potential for a cut at c4. Black has created THICKNESS (see last column). Plus, b4d4+ is a forcing move. Players of chess, go and Othello know the value of such moves. For example, Betza mentioned a3f7 as a potential response if a3e7 Black moved b4, but the clump threat rules out any such moves. Betza bemoaned the fact that Black had no good moves to the 7th rank — well, what better move could you ask for than 2.b8b7≠? Perhaps Betza's only real strategic mistake was in overemphasizing the importance of b5. I think we can say that the principles Betza is trying to teach us are basically sound and that he just misapplied them to this position.

NEXT ISSUE: The conclusion of Betza's LOA series.

ANYTHING BUT CHESS

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The Praxis of my LOA System by Ralph Betza

I will continue my discussion of new strategic ideas in LOA by presenting a few annotated games. The first is LOA-44B, Walt Roessner vs. me. The game began in 1973, before I had developed these new ideas, and is thus a rather negative example. **1.f1f3, h5f7 2.b8b6, h6e6 3.b1d3, h2f2 4.b6xe6, h3xe6 5.d8d5, h4xe1?** (White is playing planlessly, trying to make “long” moves, and is being tricked into using the “cross-rush” strategy. Indicated is 5...a7d7 and 6...h7e7, trying to slow Black up a bit. In fact, this plan should have been initiated on move 3.) **6.c8xe6, h7f5 7.d1d4, f5xd3** (White has conceived a grand plan of rushing down to the lower left and uniting there while isolating c1. This kind of bold but unsound strategy often brought impressive results against weaker players.) **8.c1d2, f7xf3 9.e8c6, f3c3 10.g8c4** (Now the flaw in White’s plan is evident. His rigid line on the a-file will be split at a4, after which he will need many moves to reunite his men.), **d3c2 11.d4xa4, a6xc4 12.a4xc4!, e1e3 13.d2d4, a2d2** (White has spent a lot of time analyzing since his 10th move. Now 14.d5xd2 would disconnect Black and isolate d2. White hopes to play c2d3, a7a4, d2b2 connecting, but Black can defend easily.) **14.g1h1, a3c5** (forced, else Black simply connects first) **15.h1e4??, a5xd5** (15.c6b5, d2g2 16.h1h2, e3g3 17.h2h3, g2g4 18.h3h4 should still win. The progress that White has made in the last few moves is shown by the fact that Black now must go through such contortions to win. In any case he should certainly not have allowed the capture at d5. The last several moves of the game are very pretty and required precise handling. In fact, I’d say that a classic ending commences here.) **16.f8f6, c2xe4 17.f6xc3, a7a6+ 18.c3xe3, a6xc4 19.e3g5+, c5d6 20.e6f5, d6e5+ 21.g5e3, c4d3++ 22.Resigns** (The point d5 remained critical to the end.)

LOA-T175 B, Roessner-Betza: **1.d1b3, h4f2 2.f8f5, a5d5 3.b1e4, h7f7** (Both players are trying to occupy central points while developing in a balanced fashion from the two halves of each position.) **4.g1g3, h2e2 5.g3e5, a2d2** (Changing the center of gravity! The squares in the geometric center of the board are no longer the focus of activity, as Black must now try to break the wall or go around it, while White tries to defend it.) **6.d8xd5, a6d3 7.e8e3, a3b4** (Stops 8.b8e8? 9.e8xe2, but now I wonder why not 8.e4xb4! in reply?) **8.e1h1, h5f3 9.e5d4, f2e1!** (Black having missed his chance to change the center of gravity by e4xb4, White can now pile up on the Black central formation. The Black men on the first and eighth ranks are out of play (at best), but White’s peripheral men turn out to be well-placed.) **10.c8c6, a7xd4 11.c6c4, d4c3 12.Resigns** Slightly premature but justifiable.

LOA-T175 B, Wally Whiteman - Betza: **1.d1b3, h4f2 2.b1b4, a2d2 3.c1c3, h3d3 4.f8c5, h7f5 5.b8b5, h2e2** (Both sides are following the same plan!) **6.d8d5, a6c6 7.c8e6, h6xe6 8.g1d1, a4a8** (Now both players are trying to escape from behind the wall. White is doing a little better, as he threatens a8xd5 then d5xd1 and can capture any Black man played to c2 or b2. 7.c8e6? merely lost a man and helped White develop.) **9.f1c1, a8xd5** (This should have been prevented. Now if 10.e1b1, a3xc1 (threatening to occupy c2) 11.c5xc1, a7c5 (threat h5xb5) and wins due to the men on e8 and g8.) **10.c3b2, f2xc5 11.c1c4, h5xb5 12.e1c1, a3a6+ 13.c1xc5** (his first capture), **a7xc5++ 14.b4d4, c6e4#.**

LOA-57 B, Creede Lambard - Betza: **1.d1b3, h3e3 2.c1c3, a5c7** (prevents e1b4) **3.b1b4, h7e7 4.b8b5, a7d7** (The best defense against a wall is to build one of your own. Trying to break through an opponent’s wall creates a center of gravity in an area in which he has the advantage, but the long-

winded maneuvers needed to escape from behind the walls give you plenty of time to equalize.) **5.g1xe3, h4e4** (Stops e3xe7, threatens e4xb4) **6.f1c4, a6c6** (defends c7) **7.e1d1, a4a7** (Mustn't permit the wedge d1xa4) **8.d1d4?, a7xd4** **9.e3xa3, a2b1** (Now White looks good — he's already out from behind the Black wall. However, 10.a3xe7 wins. Good strategy will not save you from a tactical oversight. 9....d4c5 was necessary, but the White position would still be precarious because he needs another piece or two near his wall.) **10.c4a6?, b1d3** **11.g8b8+, d4xd8** (Now White is winning, the wedge is too strong.) **12.a3xe7, d3d6** **13.b3b7, e4xb7** **14.b8a7, h5f7** **15.b4xb7, f7e6** (Note how White continually adds to his wedge and outflanks the split Black groups. This is how to capitalize on a wedge for a SAFE win.) **16.c3d2, h6f4** (defends d6 with h2 and threatens f4e4+) **17.d2xf4, h2g2+** **18.f4e4, g2f2** **19.a7c5, f2d4+++** **20.Resigns.** The near-disaster at move 10 suggests that there are as-yet-unplumbed depths to the wall-vs.-wall confrontation. White was too eager to get out from behind, and as a result Black was ready to break White's wall as soon as White had escaped from Black's wall. Better to go wedge-vs.-wedge than escape too soon.

LOA-Tf73 A, Betza - Roessner: **1.d1b3, h3e3** **2.b3xe3, h6xe3** **3.c1xe3, a7d4** **4.g1xd4, a4xd4** **5.e1e4, h7xe4** **6.f1d3** (This interesting plan was first played by D. Grant vs. me. I give this game as the refutation.), **a3c5** **7.b1xe4, h4xe4** **8.g8e6, h5e5** **9.b8xe5, h2f4** **10.e6c4, e4d5** **11.c4c1** (desperation), **a2c4** **12.Resigns** Opening theory is born.

The Vital Points of LOA by Ralph Betza

For my fifth article on LOA, I will concentrate on one new idea which I haven't so far touched on because it is so difficult to explain — the VITAL POINT. This is very much the same as the Go idea of the same name, as you might suspect.

A VITAL POINT is a square which, if occupied by you, is likely to impede your opponent's plans and aid your own. When I discuss it in these terms I wish to refer not to obvious blocking points, cutting points, or connecting points (though these, too, are vital points) but rather to those pivotal points whose identity is not easily individuated except by the use of intuition, to those unobvious squares which prove useful only several moves after they are occupied.

Not only is it difficult to put the concept of the vital point into words, but there are few games which provide a really clear example. However, a constant sense for the vital point is needed to play LOA really well. The following game, LOA-Tf73 B, Roessner - Betza, has been annotated with special attention to this difficult idea. In addition, the new idea of BALANCE is discussed a bit.

1.e8g6 This already occupies a bit of a vital point, as it impedes the movements of h7, h6 and h5. Years ago, when LOA was new, Paul Yearout had the insight that any point next to either player's initial position is likely to be a vital point.

1. ...a6d6 Standard reply, but the symmetrical a5c7 may be better.

2.g1g4 Unusual, but not necessarily bad. **2. ...d6xg6** might be the most logical reply, according to PY's dictum. More aggressive is **2.f8f6**, to which I reply **h4f2**. PY and Phil Cohen play **2. ...d6g3?** (seems unbalanced) **3.d8g5, a7c5** unclear.

2. ...a4d4 Mechanically playing a "long" move, but at least it occupies a central square and can't be captured. **2. ...h2e5** is better balanced. BALANCE is the simple idea that in the opening you should develop both halves of your initial position equally. I only discovered this idea while

playing over games for this series of articles, and I think the reason I always got disadvantages from the opening vs. Roessner is that he had discovered balance, and I hadn't. One thing about balance is that it keeps you from being tempted to try a cross-rush!

3.b1e4 Occupies center, defends g4. However, g4 was already defended by d1. Perhaps 3.f8f6 or 3.g8e6 or even 3.g8g5 — not to say 3.b1e4 is bad...

3. ...a5c7 Alternatives are h2e5 or d6xg6, but c7 is a good blocking point against b8 and also prepares h7e7 blocking d8. Furthermore, I already had a sense of f5 as a vital point, and this was part of a plan to take it away after Black occupied it. The position is already dangerous for White due to his undeveloped h-file.

4.c8f5 Vital point. If h5xf5, f8xf5. f5xh5 likely to be strong. General observation: c5,c4,d3,e3,f4,f5,e6 and d6 are more likely to be vital points than e4,e5,d4 and d5.

4. ...h7e7 A standard rule of counterplay is to create a second center of gravity rather than aiming at the COG chosen by the opponent (in which he presumably has the advantage). Therefore I block d8 as every fixed point is a COG.

5.g8e6?! I'd prefer 5.g8g5, for if d6xg6 6.d8d5 threat wedge h5.

5. ...h6xf8! Double threat on vital point f5. Culmination of White's plan.

6.f1f4?! A good practical rule is that if you can't defend a vital point, you should abandon it willingly and seek compensation elsewhere. 6.f5xh5! (≠) 6.f1b1, a2c2 (≠) 6.e1g3 threat e4xe7 (≠) 6.g6xd6! would all be better.

6. ...h5xf5 I felt greatly relieved on making this move. A position which could so easily have been lost is thereby at least equalized. 6. ...f8xf5 is less balanced.

7.e1e5? Maintaining his connection, but now this formation is immobilized and becomes a target. 7.g6xd6 equalizes. Flexibility of plan is always needed.

7. ...a3a6! Defends d6 and attacks e6. Position equal but White has the initiative.

8.g6f7 Seems passive, but if left alone, Black unites by b8e8 (≠) c1e3 (≠) d1f3.

8. ...h3h6! Vital point is e6 to isolate d8. Ties down c1 to prevent h6xf4; c1e3 no longer legal. Develops h-file (h2 will come to h5 threatening e5).

9.b8b7 If 9.f7g6, h2h5 10.e4d5, a2xd5 11.b8b7, d5xb7 (give up one strong point to take another; threat h5xe5) 12.c1e1, h6xf4 (threat a6xe6) etc. and wins.

9. ...a6xe6 Assuring victory. While Black tries to rescue d8, White will attack the Black formation while drawing his men closer together. Threat a2d5, therefore forces

10.b7d5, f8c5 White connects at vital point, avoids capture. 3-man superiority.

11.d1c2, h4h7! White doesn't defend c5 but will take compensation at f4 and e4.

12.c1xc5, h6xf4 13.g4f3, h2g1 14.c2xa2, g1xc5 15.f3c6, h7xe4+ 16.Resigns.

In effect, the Vital Point is a more localized form of the center of gravity and harder to foresee.

NEXT ISSUE: Ghosts!