

Tournoi de composition d'analyse rétrograde

R.I.F.A.C.E. 2020 - Dardilly (Lyon)

Judges: Alain Brobecker & Axel Gilbert

This year was of course special. Because of the coronavirus pandemic the annual French gathering was postponed to mid-july. And at some moments we didn't know if it would happen. But thanks to Jérôme Auclair, it finally happened. We had fewer people than usual, but since we opened the composition tourney to external composer, we nonetheless have some nice problems to show.

This year was also special because the theme was not chosen and explained carefully enough. And the example I gave was cooked...

But thanks to Pascal Wassong and Andrew Buchanan, it was a bit clearer in the hours following the announcement. And composers are talented people that can get the most out of almost anything it seems.

*Compose a classical retrograde analysis problem (last move(s), legal position...) with the **Kamikaze Dardilly** condition:*

- *A capturing unit disappears from the board as well as the captured unit.*
- *Kings cannot capture, hence they do not deliver check and so opposing Kings can be adjacent*

As stated by Pascal Wassong, it is different from the following usages of Kamikaze:

Kamikaze (Rex Exclusive) (B.G. Laws, 1928): A piece other than a king making a capture is removed from the board together with the captured man (so a king can capture normally).

Kamikaze Rex Inclusive: A piece making a capture is removed from the board together with the captured man. Kings cannot capture and cannot be adjacent.

As you will note, some problems are referenced with different Kamikaze flavor, that is because the intersection of problems under the three Kamikaze possibilities is not empty, thus giving the "weakest" stipulation is best, and as was said earlier the theme was not crystal clear at the beginning, so any Kamikaze problem was welcome, one of them even showing the difference between Rex Inclusive and Rex Exclusive.

Axel Gilbert was kind enough to help me with the judgment.

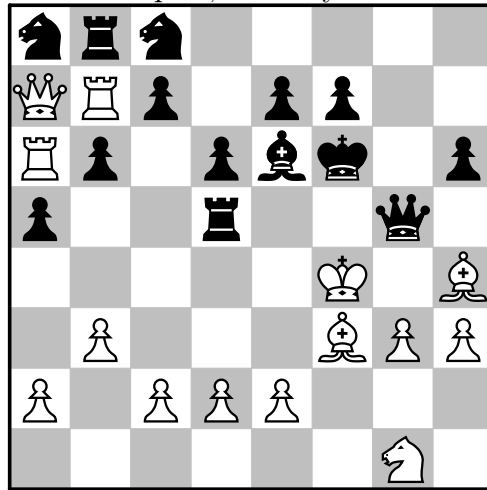
We received 9 entries. Five of them were cooked, four were corrected by their authors. This tells the difficulty of the condition. One entry was received a bit after the deadline, but we decided it was worth showing and so is included in the judgment with a special commendation as the judgment was already made (and as proposed by the author).

We were pleased of the general quality of the problems composed in such a short time, we have some light compositions introducing the condition and its subtleties, and some compositions that will burn more gray cells when solving.

We had an almost immediate agreement on the order of the problems, this year the judgment was fast.

Enough preamble, let's show the real stars of the show, the problems and their authors...

Pascal Wassong
1er prix, Dardilly 2020



14+14: Premier coup du Roi noir ?
Kamikaze Dardilly

The most convincing entry. It shows very interesting motivations for the last moves, that are quite specific to Kamikaze chess, and good classical retro content to unlock the cage. So it has both tactical and strategical content, in the purest "classical retro" style.

Solution par Pascal Wassong:

Il manque le Pion blanc f, le Pion noir g, le FNf8 et un Cavalier blanc.

Le dernier coup est DN??-g5+. Après la reprise de ce coup, il faut expliquer l'échec du FBh4. Il y avait forcément une pièce en g5. Plusieurs hypothèses sont possibles :

Un cavalier blanc g5 capture une pièce noire. C'est impossible parce que le PNg ne peut être la pièce capturée, et le FNf8 sur cases noires non plus, puisque le Cavalier joue sur une case blanche.

Un cavalier blanc capture une pièce noire en g5. C'est impossible, parce que le Cavalier blanc ne peut venir que de é4 ou h7, d'où il faisait échec au Roi noir.

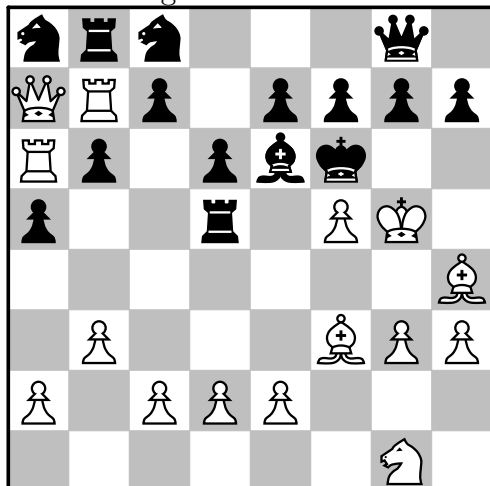
RBg5-f4 est impossible parce qu'en g5, l'échec triple par la Dame noire, la TNd5 et le PNh6 est inexplicable.

Le Pion blanc f ne peut pas avoir capturé le PNg5 depuis f4, parce que la case est occupée par le Roi blanc. Il ne reste donc que Pbf5xPNg6e.p.+.

Les noirs viennent alors de jouer PNg7-g5+. Il faut de nouveau expliquer l'échec du FBh4. Mais en ayant repris DNg8-g5+ au 1er coup, le PNg7 a fermé la ligne de la Dame noire et le Pbf5 celle de la TNd5, il est maintenant possible de reprendre RBg5-f4+ et avant ça Pnh7-h6+, puisqu'il n'y a plus d'échec triple impossible.

Les 5 derniers demi-coups sont déterminés et ont été : n.DNg8-g5+ Pbf5xPNg6e.p.+ n-1.PNg7-g5+ RBg5-f4+ n-2.h7-h6+.

Voici le diagramme avant les 5 derniers demi-coups :



15+15:

Le FNf8 a été capturé sur sa case d'origine par le Cavalier blanc manquant. L'analyse de la cage Nord montre qu'elle s'ouvre par la reprise de PNd7-d6, l'évacuation du CNc8, puis le retour du FNc8 et enfin la reprise de PNb7-b6. Une fois PNb7-b6 repris, il faut que les Tour noire h8, Roi et Dame noirs soient déjà sur la 8e rangée. Il est impossible de faire rentrer le Roi noir via la case b7, à cause des Tours blanches dans le corridor, même après l'évacuation de la DBa7. Le Roi noir est donc entré via la case d7. Sur la 8e rangée, le Roi noir se trouve donc à la droite de la Tour noire h8, ce qui ne peut s'expliquer que par le 0-0 noir. Depuis le diagramme ci-dessus, la Dame noire a dû évacuer la 8e rangée via d7, et y retourner via b7 pour être à gauche du Roi et de la Tour noirs.

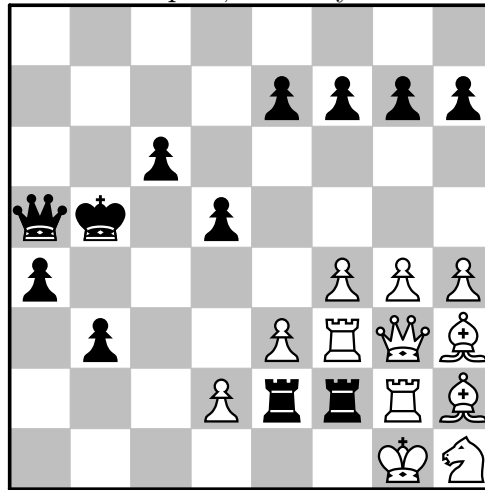
Le premier coup du roi noir est donc le petit roque.

Les thèmes sont ultra-classiques : prise en passant et roque. Il est impossible d'ajouter une promotion dans cette matrice pour obtenir le thème Valladao, parce que tous les Pions noirs sont nécessaires à la cage pour expliquer le roque, et comme les Pions ne peuvent pas changer de colonne, une promotion nécessite forcément la disparition du pion qui est en face.

Je pense que la reprise d'une prise en passant est spécifique à la condition Kamikaze Rex Inclusiv Dardilly, et est impossible à justifier en Kamikaze et en Kamikaze RI. La cage Nord, une fois les Pions noirs g7 et h7 retournés sur leurs cases initiales, et la motivation du roque sont par contre orthodoxe.

J'ai l'impression d'avoir composé un problème dans le style des premiers rétros, où les derniers coups sont déterminés par une série d'échecs consécutifs. Je ne serai pas du tout surpris que d'autres compositeurs aient travaillé sur les mêmes idées pour ce tournoi, la condition ne me semble pas aussi riche que les rétros orthodoxes. Les pions sont l'âme des échecs, disait Max Euwe, c'est vrai aussi pour les rétros. Limiter leurs possibilités restreins beaucoup ce qu'il est possible de faire en rétro.

Michel Caillaud
2ème prix, Dardilly 2020



12+12: 24 derniers coups simples ?
Kamikaze Dardilly

A good tempo play, also specific to the condition. The cage has some orthodox flavor, but you'll have to unlock it with a Kamikaze key involving adjacent kings.

Solution:

Try: -1.Kb4-b5? c5xd6 leaves 3 black pieces on black squares at the end of retroplay.
The first retromove is now a kind of "logical foreplan".

-1.c7-c6!! c6xBd7 (not a kNight because the two other captures will be made on dark squares and we need the light squared bishop to be uncaptured) -2.Kb4-b5 c5-c6 -3.Ka3-b4 c4-c5 -4.b4-b3 c3-c4 -5.b5-b4 c2-c3 -6.b7-b5 b6xNa7 -7.Kb2-a3 b5-b6 -8.Kc1-b2 b4-b5 -9.Kd1-c1 b3-b4 -10.Ke1-d1 a3xNb4 -11.Kf1-e1 a2-a3 -12.Re1-e2 e2-e3

Unicity of pawns moves was tested using Jacobi by Francois Labelle:

pieces

White Kh8 Pb3a2c2d2e2f2g2h2

Black Kg1 Qa5 Rg7 Bd7 Sa7b4 Pb7c7e7f7h7g6d5a4

option FirstToMove black

stip dia11.5

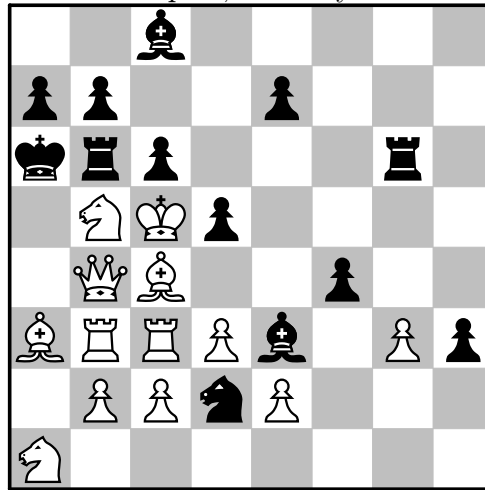
pieces

white Kh8 Pd2e2f2g2h2

black Kb5 Qa5 Rg7 Pb3a4d5c6g6e7f7h7

condition Kamikaze RexInclusive

Andrey Frolkin
3ème prix, Dardilly 2020



13+13: Last 10 single moves?
Kamikaze Dardilly

Also a good cage that needs precise retroplay with Kamikaze effects. Very pleasant to solve !

Solution by Andrey Frolkin:

In Kamikaze (including the Dardilly version), pawn doubling is ruled out; and promotions can only happen when one of the pawns on a file captures to an adjacent file or is captured - and disappears in either case. After the promotion of the other pawn on such file, the promotion file has no pawns any longer and will never have any. There are no pawnless files in this position; hence no promotions could have taken place. So the last move could only be -1...Sd4xPf3+ (-1...S/Rxd4+?? - no white unit is available for uncapture).

The missing white pawns on the files a and h imply two captures and disappearance of 4 pieces; thus, all missing pieces are accounted for, although the exact captures are still unknown. Even though pawn doubling as a result of captures by pawns is the basis for almost all retrocages in standard chess, which is impossible in Kamikaze chess, the huge construction on the queenside and in the middle of the board can be referred to, for the purposes of this solution, as a cage. There are two fast-looking options for releasing the cage: (1) providing the wK with a flight on d4; and (2) vacating b6 for wPa5xbRb6 or for the bK.

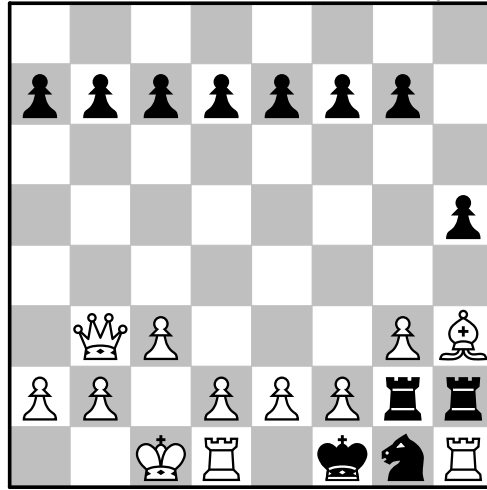
Retract: -2.f2-f3 h4-h3 -3.h3xPg4 and now:

Try: -3...Sf1-d2? -4.h2-h3 Bd2-e3 -5.?? - retrostalemate for White.

Solution: -2.f2-f3 h4-h3 -3.h3xPg4 c7-c6 -4.h2-h3 Rf6-b6 -5.a5xQb6 Qe6-b6+ -6.Qa4-b4 (-6.a4- a5? Kb6-a6 -7.?? - no tempo for -7...Kc6-b6)

Jakob Leck

1ère Mention d'Honneur, Dardilly 2020



12+12: Dernière pièce capturée?
Kamikaze Dardilly

A lighter setup, but a pleasant problem and a cristal clear reasoning (in French, thanks Jakob) leads to the conclusion.

Solution par Jakob Leck:

La dernière pièce capturée est le Fc1.

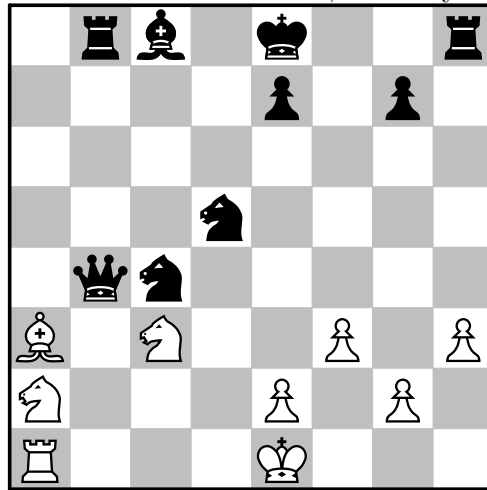
Captures: CxFc8, CxFF8, D/CxFc1, C/DxPh ou PhxD/C.

Alors on ne peut pas reprendre Cx?e1 et les derniers coups ont été n-1.... Db1/c2xFc1 n.0-0-0+.

Reprendre h7-h5/h6-h5 est impossible parce que les tours doivent retourner et reprendre D/CxPh4 produit une position illégale: Pour défaire la cage avant C/DxPh4 il faudrait q'on rétracte Th3-h2 et ensuite Th2-g2 et Rg2-f1, mais puis on ne pourrait pas rétracter le Cg1 parce que la case h3 serait bloquée et Cf3-g1 serait un échec illégal. Et on ne pourrait pas sortir le roi de la cage pour des raisons similaires. On pourrait aussi rétracter Th3-h2 et Th2-h1 mais encore une fois le Cg1 serait immobile. Et rétracter Th3-h2, Th2-g2, g2-g3 n'est pas possible naturellement. Utiliser un cavalier blanc sur la case g1 pour résoudre la cage ne serait pas possible avant que la Ta8 soit retournée.

J'ai trouvé très difficile de composer un rétro avec la condition Kamikaze Dardilly.

Andrew Buchanan
2ème Mention d'Honneur, Dardilly 2020



9+9: h#3 (2 solutions)
Kamikaze Rex Exclusive

A witty problem of mutually exclusive castling rights, that involves the specific links between pawns missing and promotion in Kamikaze. The good forward play is a plus.

Solution by Andrew Buchanan:

This problem shows PRA (Partial Retro-Analysis, see below).

Suppose that there exists a proof game under which **both** White and Black can castle, so neither king has moved or captured. Then neither wKB and wKR escaped their cage. Two Black pieces must have entered the cage, to capture or be captured. It can't be rook or light-squared bishop, as they won't fit through the gap. It can't be pawn, as the original bPe & bPg are still on the board, and any bP which captured to these files would have been annihilated as it did so. So it was queen, knight or dark-squared bishop. Since Black still has QNN, and bBk died at home, Black must have promoted twice. To avoid disrupting White castling, these must have been bPb and bPc, on b1 and c1 respectively. wPb and wPc captured/were captured to clear out of the way, and the only available Black units were bPa and bPd respectively. So far so good.

We must also capture/annihilate bPf, bPh and bKB, none of which went further West than the e-file. We have just wQ, wPa and wPd available to annihilate with them, but to do so, both wPs would have to promote without capture. If wPd promotes, it must disrupt bK and prevent it from castling. So one of the two kings must have moved before. There is no problem creating scenarios in which just one king moved (e.g. wK moved to release wKR which captured bPh, or bK moved to allow wPd to promote).

Therefore, under PRA the problem divides into two parts:

- (a) White can castle, but not Black.
- (b) Black can castle, but not White.

Each part solves together with a retro try:

- (a) 1. kRh8-f8! (0-0?) 0-0-0 2. kRf8-f7 kSc3xd5[-wkSd5] 3. Kg8-f8 kRd1-d8#
- (b) 1. 0-0 kRa1-d1! (0-0-0?) 2. Kg8-h8 kRd1-d4 (kRd1xd5[-wkRd5]?) 3. kRf8-g8 kRd4-h4#

There is an additional solution which works in both parts:

- 1. kQb4xa3[-bkQa3] kSa2-b4 2. Ke8-d8 kRa1-a7 3. kRh8-e8 kSb4-c6#

So under the conventional arithmetic for these things, the total number of solutions stipulated is $2 = 1 + 2/2$.

Validated under Popeye v4.85 for the forward play only:

```
begi
prot kamiout.txt
piec whit Ke1 whit kami Ra1 Ba3 Sc3 Sa2 Pe2 Pf3 Pg2 Ph3 blac Ke8 blac kami Rh8 Rb8 Qb4
Bc8 Sd5 Sc4 Pe7 Pg7
opti vari
stip h#3
end
```

```
Kamikaze b8 c8 h8 e7 g7 d5 b4 c4 a3 c3 f3 h3 a2 e2 g2 a1
1.kQb4*a3[-bkQa3] kSa2-b4 2.Ke8-d8 kRa1-a7 3.kRh8-e8 kSb4-c6 #
1.0-0 kRa1-d1 2.Kg8-h8 kRd1-d4 3.kRf8-g8 kRd4-h4 #
1.0-0 0-0-0 2.kRf8-f7 kSc3*d5[-wkSd5] 3.Kg8-f8 kRd1-d8 #
1.0-0 0-0-0 2.Kg8-h8 kRd1-d4 3.kRf8-g8 kRd4-h4 #
1.kRh8-f8 0-0-0 2.kRf8-f7 kSc3*d5[-wkSd5] 3.Ke8-f8 kRd1-d8 #
```

(kY denotes that unit Y is Kamikaze.)

I've stumbled across some other apparent bugs in Popeye for Kamikaze with option intelligent, see <https://github.com/thomas-maeder/popeye/issues/295>. It's fine to use inte for quicker result, but should validate without inte to avoid missing solutions/cooks/duals. As far as I can see Popeye without inte is totally ok.

What is PRA exactly?

Each kind of conditional move (in orthodox chess: castling and en passant, but fairy chess offers numerous others) needs a convention which says what we assume about the legality of this move if the history of the game is uncertain. Conventions are either optimistic (it's always ok to play an uncertain move, e.g. castling) or pessimistic (it's never ok to play an uncertain move, e.g. e.p.).

These conventions only apply to forward stipulations. General retros (e.g. last move, proof game) admit no conventions: everything must be proven. Retractors (e.g. help-retractors, defensive retractors of different kinds) need no conventions, because any feasible last move can always be retracted.

If there is only one conditional forward move, then we have enough information. However, there are many positions in which there are multiple possible conditional moves, logically inter-dependent. How do we proceed? We need to move to a higher level of meta-convention: the default is PRA.

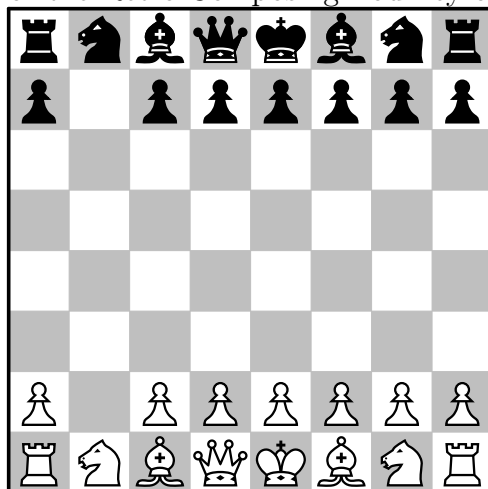
PRA says divide up the problem into different parts: each with a different subset of the conditional moves permitted. There are two constraints in defining these subsets. First the subset has to be legal, i.e. there must exist a proof game that results in the problem diagram with exactly this subset of permitted moves ok. Secondly, no subset can be "improved" to another set by applying one of the basic conventions.

So in the current problem, there are two conditional moves: wQ & bK castling. There are four possible subsets: {wQ, bK}, {wQ}, {bK} & {}. We prove that {wQ, bK} is illegal: i.e. the two castlings are mutually exclusive. The empty combination {} is dominated by applying the optimistic castling convention (either for White or for Black), so we discount that. Hence we divide the problem into two parts {wQ} & {bK}.

Bernd Graefrath (Germany)

Recommandé, Dardilly 2020

Contribution for the Retro Composing Tourney of RIFACE 2020



15+15: Minimum number of knight moves?

Kamikaze Rex Inclusive

b) Kamikaze Rex Exclusive

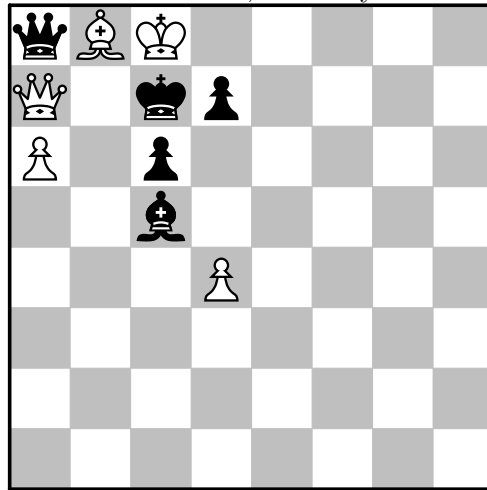
Amusing way to show the difference between Rex Inclusive and Rex exclusiv Kamikaze.

Solution by Bernd Graefrath:

The missing two pawns could not capture each other. So a b-pawn was captured by an officer (or captured an officer), and this officer was then replaced by a promoted pawn (Pronkin theme). The promotion took place on the b-file. For this purpose, a knight had to move away and then return (TWO knight moves!). A promoted bishop could not have returned, a promoted knight would have taken too many knight moves, and a rook (from and back to its homebase on the a-file) would have forced two additional knight moves. So there is a Pronkin-Queen on the board (on d1 or d8), with the return of a bishop (on c1 or c8). A possible proof game: 1.b4 b5 2.Bb2 Bb7 3.Be5 Be4 4.Qc1 Bd5 5.Qa3 Be4 6.Qa4 bxa4 (-bPa4) 7.b5 Bd5 8.b6 Be4 9.b7 Sc6 10.b8=Q Bd5 11.Qb2 Sb8 12.Qc1 Be4 13.Qd1 Bb7 14.Bb2 Bc8 15.Bc1.

b) With Kamikaze rex exclusive, no knight moves are necessary at all! Both kings move out of their homebase and capture the opponent's b-pawn. Then they return to e1 and e8, with switchbacks by two queens and two bishops. A possible proof game: 1.b4 b5 2.Bb2 Bb7 3.Be5 Be4 4.Qc1 Qc8 5.Qa3 Qa6 6.Qh3 Qh6 7.Kd1 Kd8 8.Kc1 Kc8 9.Kb2 Kb7 10.Kc3 Bd5 11.Kd4 Be4 12.Kc5 Bd5 13.Kxb5 Be4 14.Kc4 Kb6 15.Kb3 Kb5 16.Kb2 Kxb4 17.Kc1 Kb5 18.Kd1 Kb6 19.Ke1 Kb7 20.Qa3 Kc8 21.Qc1 Kd8 22.Qd1 Ke8 23.Bb2 Qa6 24.Ba3 Qc8 25.Bb2 Qd8 26.Ba3 Bb7 27.Bc1 Bc8.

Marco Bonavoglia
Recommandé, Dardilly 2020



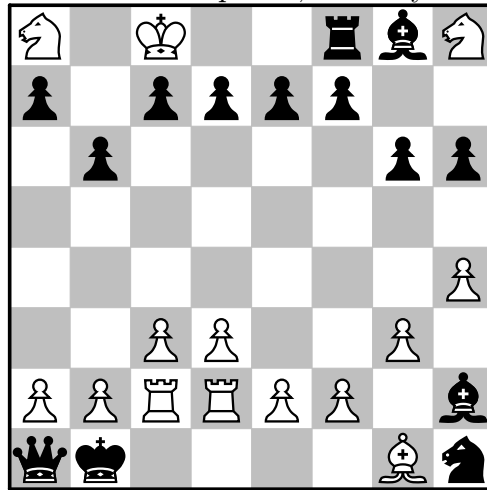
5+5: last 3 single moves?
Kamikaze Dardilly

Of course the solution is short but it already shows Kamikaze content, namely the difficulty to retract captures - or not !

Solution:

1.b7-b8=B+ Kb8-c7+ (there are no possible captures from/to b8!) 2.Db6-a7+

Thierry Le Gleuher
Recommandé spécial, Dardilly 2020



14+14: Résoudre
Kamikaze Dardilly

Received a bit late, we decided to add this problem to the judgment because it is worth to show and we saw the successive versions during the meeting. Pleasant to solve with many cages to open in a precise order, with adjacent kings as the main idea.

Solution:

WQ, light squared WB, BR and BN are missing. Due to the check, the last move is Black capturing a White piece somewhere on d8 or e8. After some analysis we know that a piece must be placed on c1 to release the southwest cage, then the BK escapes through h3, then WPg2-g3 can be taken back releasing the southeast cage and the dark squared BB which in turn can go back to f8, allowing BPg7-g6 to be taken back, releasing the northeast cage.

We also know that the BR has been captured in the north cage.

Last, there is no way we can put a WR near h1 before taking back WPg2-g3, thus we deduce that the WBf1 has been taken home before WPg2-g3 was played. And of course it was taken by BN.

Therefore the only piece that can be placed on c1 is the WK.

- n... BRd8×WQe8+
- n.WKb7-c8
- n-1... BBh7-g8
- ...
- n-11.WKc1-d1
- n-12... BB~
- n-12.WRd1-d2
- n-13... BB~
- n-13.WRf1-d1
- n-14... BB~
- n-14.WKd1-c1
- n-15... BKc1-c1
- n-15.WRd2-c2+
- n-16... BB~
- n-16.WKe1-d1
- n-17... BKd1-c1
- n-17.WRc2-d2+
- n-18... BQc1-a1
- n-18.WQc8-c8
- n-19... BQg5-c1

Now we have plenty space to let the BK go out through h3, and release the cages one after another.