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Chess grandmasters versus chess computers

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NEWS, INFORMATION, TOURNAMENTS AND REPORTS

CHESS GRANDMASTERS VERSUS CHESS COMPUTERS

by the Editor

The September issue of this Journal promised to write up the highlights of Sosonko's simultaneous exhibition against all programs competing in the Fifth World Microcomputer Championship. Lack of space prevented its early publication and its news interest may well have waned meanwhile. We still make good our promise, but now incorporate Sosonko as one in a series of notable meetings between grandmasters and computers in chronological order. Comment will be kept to a minimum: the games are eloquent enough as it is.

COLOGNE: KARPOV AT THE COMPUTER FAIR

In spring 1985, Karpov, the then World Champion, started his German tour with a simultaneous exhibition in Cologne. Among his 20 opponents (17 wins, 3 draws), two were computers. One of them almost forced a win in the game below.

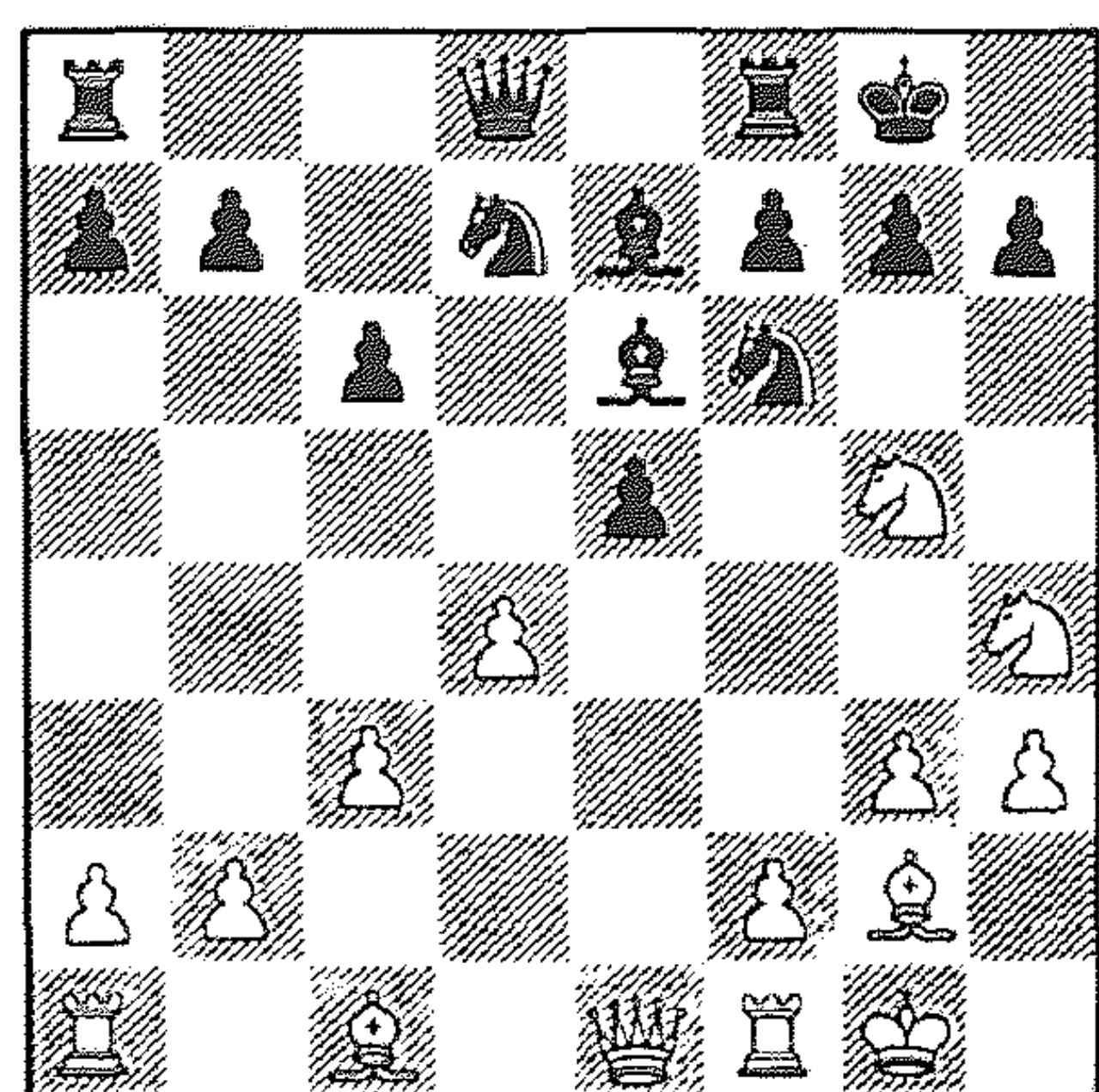
White: Karpov

Black: Mephisto

Simultaneous game, Cologne 1985

1. d4 d5 2. Nf3 c6 3. g3 Nf6 4. Bg2 Bf5 5. O-O Nbd7 6. Nbd2 e6 7. Nh4 Bg4 9. Qe1 Be7 9. c3 e5 10. e4 dxe4 11. Nxe4 O-O 12. h3 Be6 13. Ng5.

Underestimating a mere computer or overconfidence in himself? More to the point would have been 13. dxe5 Nxe5 followed by 14. Ng5 Nd3 15. Nxe6 Nxe1 16. Nxd8 Nxe2 17. Nxc6 with White a Pawn ahead. After White's 13th move, Mephisto does very well and shows the futility of White's efforts. So far, so good, but beyond move 34 Black often fails to find the best move. Though at first there is a little deterioration, the down slope is skidded along eventually.



Position after 13. Ng5.

13. ... Bc4 14. dxe5 Bxf1 15. Bxf1 Nd5
16. Nhf3 h6 17. Ne4 b5 18. b3 Qc7
19. e6 fxe6 20. Bg2 e5 21. Bb2 N5b6
22. Qe2 Rad8 23. Re1 a5 24. Nh2 Nc5
25. Ng4 Nd3 26. Rf1 h5 27. Nh2 h4

28. Nf3 hxg3 29. fxg3 Nxb2 30. Qxb2 Nd5 31. Re1 Nf6 32. Nfg5 Nxe4
33. Nxe4 Qb6+ 34. Kh2 Qa6 35. Qe2 Qc8 36. h4 Qe6 37. Bh3 Qg6 38. Bg4 b4
39. Rc1 Kh8 40. Kh3 Qh6 41. Rc2 Rd5 42. Bf3 Rd7 43. Kg2 bxc3 44. Rxc3
Bb4 45. Rc2 Re7 46. Ng5 c5 47. Be4 Rd7 48. Kh3 Rc7 49. Bd5 Re7 50. Qe4
Ba3

The last ten moves were played fast, there being few opponents left. As from move 50 Mephisto was the lone survivor in the field and time was at a premium: no problem to Karpov, a disaster to Mephisto.

51. Bc4 Rd7 52. Rf2 R7d8 53. Nf7+ Rxf7 54. Rxf7 Bb2 55. Rf5 Ba1 56. Rg5 Bc3 57. Qg4 g6 58. Rxc6 Qh7 59. Qg5 Rf8 60. Rh6 e4 61. Rxh7+ Black resigned.

HAMBURG: KASPAROV AGAINST 32 COMPUTERS

Hamburg saw two exhibitions by Kasparov after his match with Robert Hübner. A blindfold simultaneous against ten (nine humans and one computer) resulted in 9-1 to Kasparov, Mephisto 68000 falling an easy prey.

A second exhibition was simultaneous play against 32 computers, 8 each from 4 competing firms. Kasparov's victory was triumphal: 32-0. International Master Hans Böhm, an eye-witness: "When, towards the end, some programs seemed to be near wins or draws, their commercial competitors kept their fingers crossed for the programs in play to blunder. So they did and when 32-0 was achieved, there was great relief on all sides." Though the programs were not hopelessly overpowered at all moments, Kasparov was easily strong enough to outplay them all.

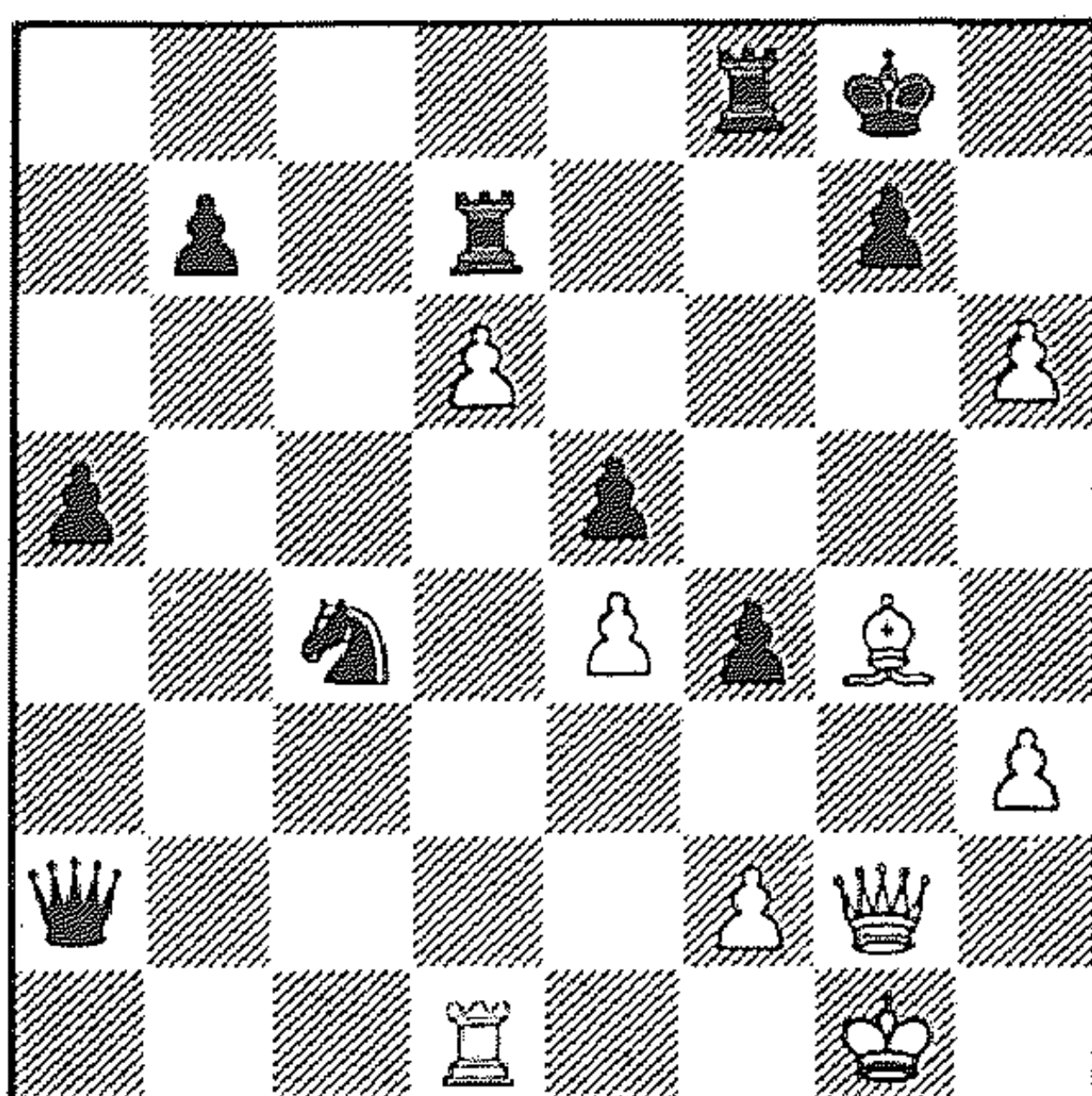
White: Kasparov

Black: Turbostar 432

Simultaneous game, Hamburg 1985

1. c4 e6 2. g3 Nf6 3. Bg2 d5 4. Nf3 dxc4 5. 0-0 c6 6. a4 Be7 7. Qc2 Nbd7 8. Qxc4 Nb6 9. Qc2 Nfd5 10. Nc3 Nb4 11. Qd1 0-0 12. d4 a5 13. e4 Bd7 14. Qe2 Be8 15. Rd1 f6 16. Be3 Bh5 17. h3 f5 18. Bf4 Qd7 19. Re1 Bxf3 20. Bxf3 Bd6 21. Bxd6 Qxd6 22. Rad1 f4 23. g4 Rad8 24. Rd2 e5 25. d5 h6 26. Red1 c5 27. Qb5 Ra8 28. Qf1 Qd7 29. b3 c4! 30. bxc4 Rac8 31. g5 Nxc4 32. Ra2 Nxa2 33. Nxa2 Qxa4 34. gxh6 Qxa2 35. Qg2 Rc7 36. d6 Rd7 37. Bg4.

After 37. ... Qa4 White's hopes seem slender indeed. As the game was played, Black was soon annihilated in spite of its material advantage.



37. ... Qb3? 38. Bxd7 Qxd1+ 39. Kh2 Rf7
40. Be6 Kf8 41. h7 Nxd6 42. h8(Q)+ Ke7
43. Bxf7 Nxf7 44. Qhxg7 Black resigned.

Position after 37. Bg4.

AMSTERDAM: SOSONKO AND HIS 31

Gena Sosonko experienced the full brunt of playing against a bevy of computers: all 21 rivals in the September 1985 Amsterdam World Microcomputer Championship, topped up with 10 strong commercial products. He took 8 hours to reach his result of +25, =1, -5 for 82,3%, many times longer than for a normal exhibition. Acidly, Gena muttered: "And on top of that, they will publish my losing games!" Gena felt himself to be representing humanity, while not disguising his respect for the programmers. Though his result falls short of Karpov's and Kasparov's, it is at least eminently respectable and he did not lose against world champion Mephisto. In fact, he drew.

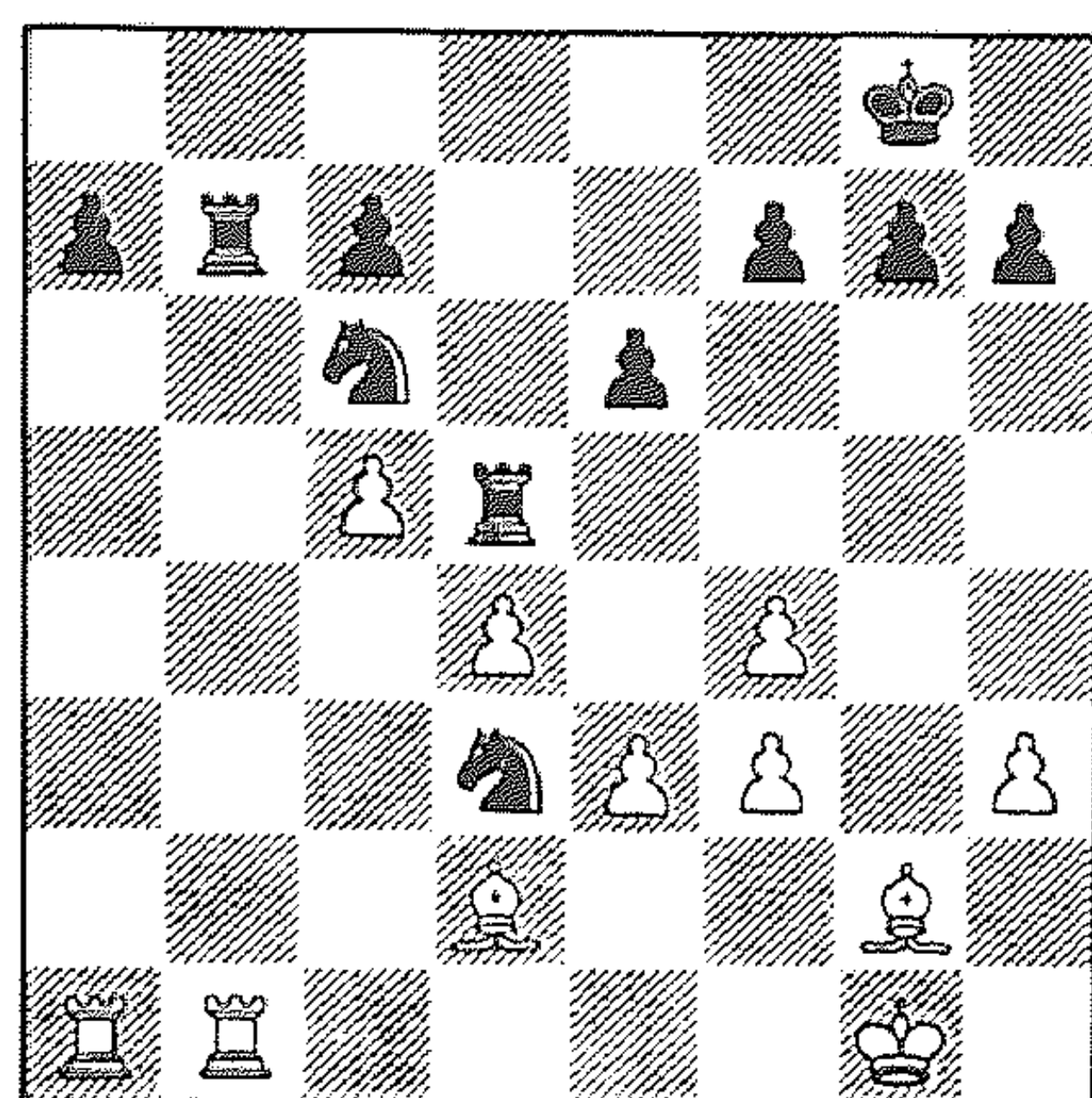
White: G. Sosonko

Black: Turbostar 432

Simultaneous game, Amsterdam 1985

1. d4 d5 2. Nf3 Bf5 3. c4 e6 4. Nc3 Nf6 5. cxd5 Nxd5 6. e3 Bb4 7. Bd2 Bxc3 8. bxc3 0-0 9. Be2 Nb6 10. 0-0 Nc6 11. c4 Rb8 12. a4 Be4 13. a5 Bxf3 14. gxf3 Nd7 15. f4 Qf6 16. Kh1 Qf5 17. Bf3 Nf6 18. Qb1 Qh3 19. Bg2 Qh4 20. Qe1 Rfd8 21. a6 Ng4 22. h3 Rd6 23. axb7 Rxb7 24. c5 Rd5 25. f3 Qxel 26. Rfxel Nf2+ 27. Kgl Nd3 28. Rebl.

The team of black Knights seem nothing less than inspired, the white Bishops can do nothing but shake their wise heads sadly, a reflection of the force of the (in)direct protecting moves 28 to 31.



28. ... Nxc5 29. Rc1 Nb3 30. Rab1 Nd8
 31. Rc2 Nxd4 32. Rcb2 Rxb2 33. Rxb2 Nb5
 34. e4 Rd6 35. Bf1 Nd4 36. Kf2 f5
 37. Ra2 N8c6 38. Bc4 Kf7 39. Bc3 fxe4
 40. fxe4 Kg6 41. Ke3 e5 42. Bd5 exf4+
 43. Kxf4 Rf6+ 44. Ke3 Rf3+ 45. Kd2 Rf2+
 46. Ke3 Rxa2 47. Bxa2 Nb5 48. Bb2 a6
 49. e5 Kg5 50. Ke4 Nb4 51. Bg8 Kg6
 52. e6 Nd6+ 53. Ke5 Nd3+ 54. Kd5 Nxb2
 55. e7 Kf6 56. Kc6 Kxe7 57. Bxh7 Kd8
 58. Kd5 Kd7 59. Bc2 a5 60. Kc5 g5

Position after 28. Rebl

61. Bg6 Na4+ 62. Kd4 Ke6 63. Bc2 Nb5+ 64. Ke4 Nc5+ 65. Ke3 a4 66. Bb1 Nc3 67. Bh7 a3 68. Kd4 a2 69. Bg8+ Kd6 70. Bxa2 Nxa2 71. Ke3 Ke5 72. Kf3 Ne4 73. Kg4 Nb4 74. h4 gxh4 75. Kxh4 Kf4 76. Kh3 c5 77. Kg2 c4 78. Kf1 c3 79. Kel Ke3 80. Kdl Nf2+ 81. Kcl Nfd3+ White resigned.

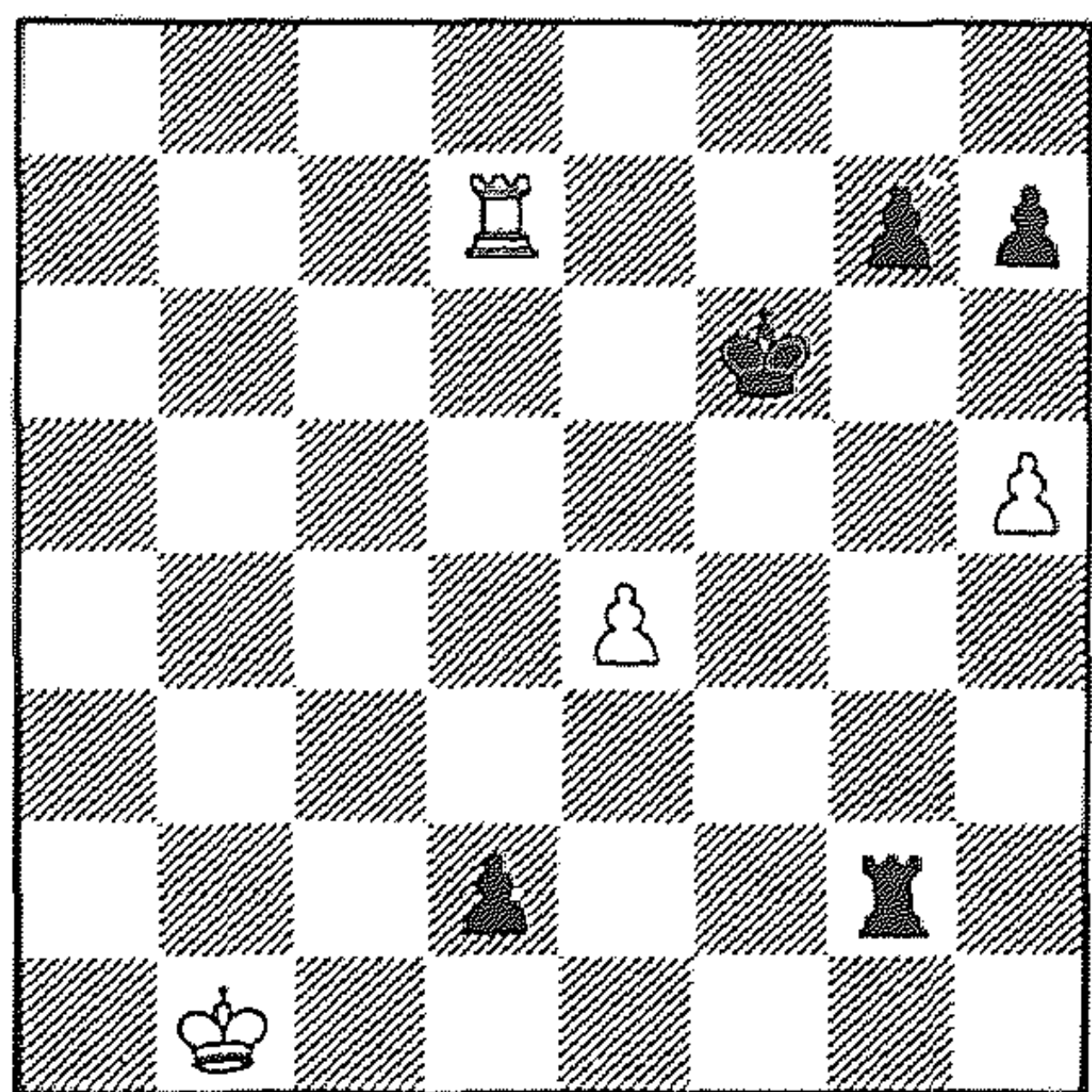
ROTTERDAM: VAN DER WIEL GOES ONE BETTER

When John van der Wiel was to meet 30 computer opponents in the Rotterdam Trade Centre, he was a forewarned man. Sosonko's results had made him wary and he did not treat his adversaries lightheartedly. It took 6½ hours to reach the result: +23, =6, -1 for 86,7%. A enlightening drawn game follows.

White: Van der Wiel
 Black: Novag Super Constellation
 Simultaneous game, Rotterdam 1985

1. c4 c5 2. Nf3 Nf6 3. Nc3 d5 4. cxd5 Nxd5 5. e4 Nxc3 6. dxc3 Nbd7
 7. Bf4 e6 8. Qc2 Be7 9. O-O-O Qa5 10. Kbl O-O 11. h4 b5 12. Ng5 e5
 13. Be3 b4 14. cxb4 Qxb4 15. a3 Qb7 16. Bc4 Nb6 17. Ba2 Bd7 18. Nxf7
 Rxf7 19. Bxc5 Ba4 20. Bxf7+ Kxf7 21. b3 Rac8 22. bxa4 Nxa4+ 23. Ka2 Nxc5
 24. Qc4+ Ne6 25. Qb3 Qxb3 26. Kxb3 Nd4+ 27. Kb2 Rc2+ 28. Kbl Bxa3 29. Rxd4
 Rb2+ 30. Kal exd4 31. Rh3 Rxf2 32. Rxa3 Rxc2 33. h5 Kf6 34. Rxa7 d3
 35. Rd7 d2 36. Kbl.

Super Constellation might have done better than it did in the endgame. However that may be, in the position diagrammed the program overlooks a highly obvious opportunity: 36. ... Rg1+ 37. Kc2 d1(Q)+ 38. Rxd1 Rxd1 39. Kxd1 Ke5, with a won Pawn endgame. Note that this is at 9-ply depth, but could well have been within the search horizon owing to the captures involved.



Position after 36. Kbl.

36. ... Ke5 37. Kc2 Kxe4 38. h6 gxh6
 39. Rxh7 Rh2 40. Re7+ Kf3 41. Rf7+ Ke2
 42. Re7+ Kf1 43. Kd1 h5 44. Rf7+ Kgl
 45. Rg7+ Kh1 46. Rg5 h4 47. Rh5, a draw was agreed.

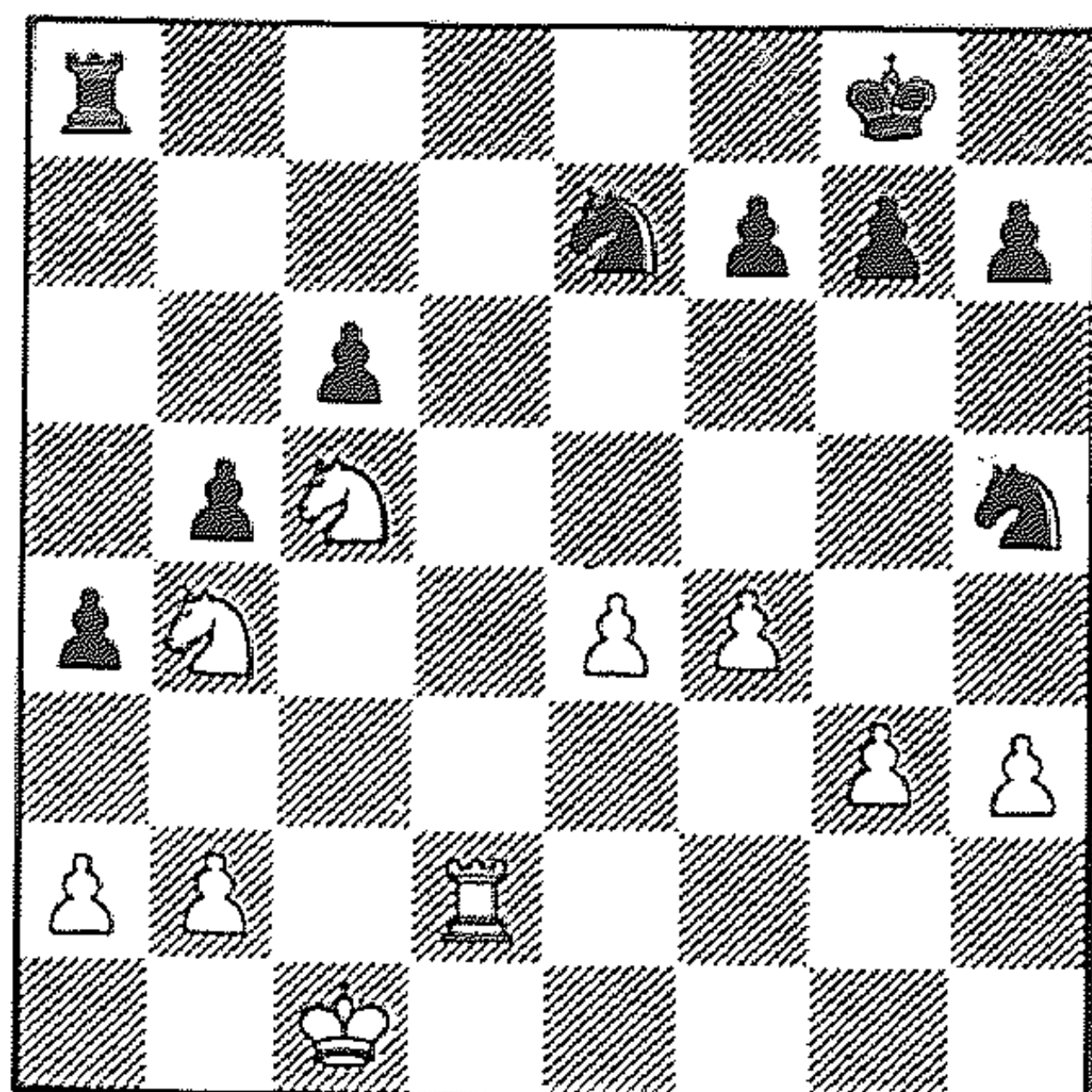
THE HAGUE: YUSUPOV AND THE 40 DUTCHMEN

Forty of the Dutch, Mephisto Amsterdam among them, the rest humans all, met in February 1986 in The Hague, all bent to avenge their countryman's recent defeat at the hands of Yusupov. The exhibitor had a long and arduous fight, winning only 15 games, losing 11 and drawing 14. Mephisto had the distinction of keeping up the game the furthest into the night. At a well-considered point in time, Mephisto exchanged both its Knights against a Rook and a Pawn, resulting in a long-drawn and tricky endgame. The game has been selected to stress the program's strength.

White: A. Yusupov
 Black: Mephisto Amsterdam
 Simultaneous game, The Hague 1986

1. d4 d5 2. c4 dxc4 3. e4 e5 4. Nf3 Bb4+ 5. Bd2 Bxd2+ 6. Qxd2 exd4
 7. Qxd4 Qxd4 8. Nxd4 Nf6 9. Nc3 O-O 10. Bxc4 Bd7 11. O-O-O Nc6 12. f3
 Ne5 13. Be2 a6 14. f4 Ng6 15. g3 Ne7 16. Bf3 c6 17. Nb3 Bh3 18. Na4 b5
 19. Nac5 a5 20. Nd4 Rfc8 21. Rd2 a4 22. Nc2 Rd8 23. Rhd1 Rxd2 24. Rxd2
 Bg4 25. Bxg4 Nxg4 26. h3 Nf6 27. Nb4 Nh5

In the position diagrammed, Black seems to have no effective counterplay. Its Queen-side Pawns are blocked. It cannot oppose on the d-file and is condemned to wait until White will create a passed Pawn on the King side.



28. Rd3 g6 29. Kd2 Rc8 30. Ke2 f5
 31. exf5 Pxf5 32. Kf2 Nhxg3 33. Rxg3
 Nxc3 34. Kxc3 Kf7 35. Kf3 Kf6 36. a3
 Rc7 37. Nc2 Ke7 38. Ke4 Kd6 39. Kd4 Rf7
 40. Ne4+ Kc7 41. Ke3 Kb6 42. Nd4 Rd7
 43. h4 c5 44. Ne6 c4 45. Nd4 Re7
 46. Nc2 Re8 47. Nb4 Rf8 48. Ng5 h6
 49. Ne4 Rf7 50. Nd5+ Kc6 51. Kd4 h5
 52. Nec3 Rg7 53. Ke5 Rd7 54. Nb4+ Kc5
 55. Nce4+ Kb6 56. Nd5+ Kc6 57. Nef6 Rg7

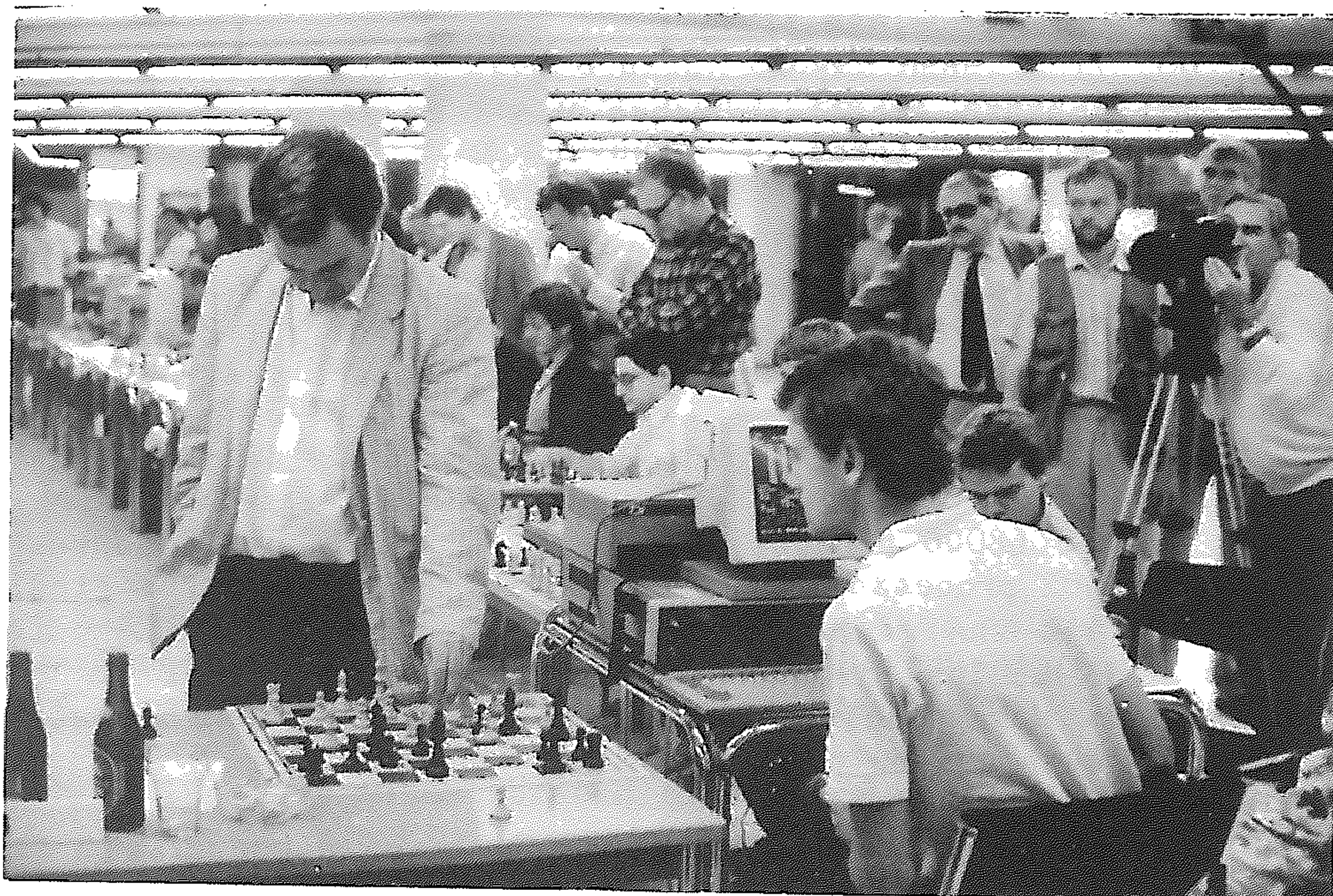
Position after 27. ... Nh5

58. Ke6 Kc5 59. Ne4+ Kd4 60. Nd6 Kd3 61. Nxb5 Kc2

Clearly Yusupov had underestimated Black's countering opportunities. It is Black who obtained a threatening passed Pawn, forcing White to sacrifice a piece.

62. Nd6 Kb3 63. Nb6 c3 64. bxc3 Kxa3 65. c4 Kb3 66. Pxa4 Kxa4 67. c5
 Rc7 68. Kd5 Ka5 69. c6 Ka6 70. Nc4 Rf7 71. Ke5 Rf5+ 72. Ke4 Rf6
 73. Ne5 Rd6 74. f5 gxf5+ 75. Kxf5 Rd5 76. Kf6, a draw was agreed.

The conclusion seems obvious: the grandmasters are still ahead of the chess computers by 3-2, provided the grandmasters consent to be crippled by the unnatural shackle of simultaneous play. This proviso is essential.



SIMULTANEOUS SOSONKO:
 82,3% for humanity.

Photo by L. Lindner