<u>ACM'78</u>

David Levy

I should like to comment briefly on those aspects of the Washington tourna-
ment which I considered to be most significant and/or most interesting.
From a general standpoint I think that this event will be remembered for
the fine performances turned in by the two microprocessor-based programs.
Sargon did particularly well and Mike was perhaps a little unlucky not to
score an extra half point in the final round. These two programs clearly
demonstrate that within a few years it will be possible to have expert
strength chess machines that are easily portable.

I hope to be able to promote microprocessor chess in Europe by helping to
organize further micro tournaments (we had one in London in September).
A micro event is tentatively planned for November 1st through 3rd in London,
as part of the exhibition put on by the magazine <u>Personal Computer World</u>.
Anyone interested in taking part should contact me. It is likely that in
1980 the PCW tournament will be the first Microprocessor World Championship.
I am going to recommend to the ICCA that this year's event act as a qualify-
ing tournament and that if another micro championship is held in the USA,
then that, too, can be a qualifying competition for the World Championship.
Someone in the USA is needed to find an organiser for this event but remember
the costs are almost zero - there are no telephone charges and the contestants
pay their own fares and hotel bills.

Two specific incidents stand out in my memory from the tournament in
Washington. Firstly, the game between BLITZ and BELLE produced the most
beautiful combination ever played by a computer program. The end of that
game was a sheer delight to watch and the main alternative variation, which
BLITZ avoided, would have been just as pleasing. After ...RxRP!, had
BLITZ replied NxN Q-R5; N-N3, BELLE would have played ...QxN!!; PxQ dis ch
N-B6 mate! This last move blocks the check on Black's king, defends the
rook on KR7, checks the white king with the knight and opens up a diagonal
for another check from the black bishop. In all my years of tournament
experience I cannot recall seeing a move which accomplished so much.

(over)

The other memorable moment of the tournament arose in the game between BELLE and CHESS 4.7. The critical position of that encounter deserves a diagram.

CHESS 4.7

BELLE
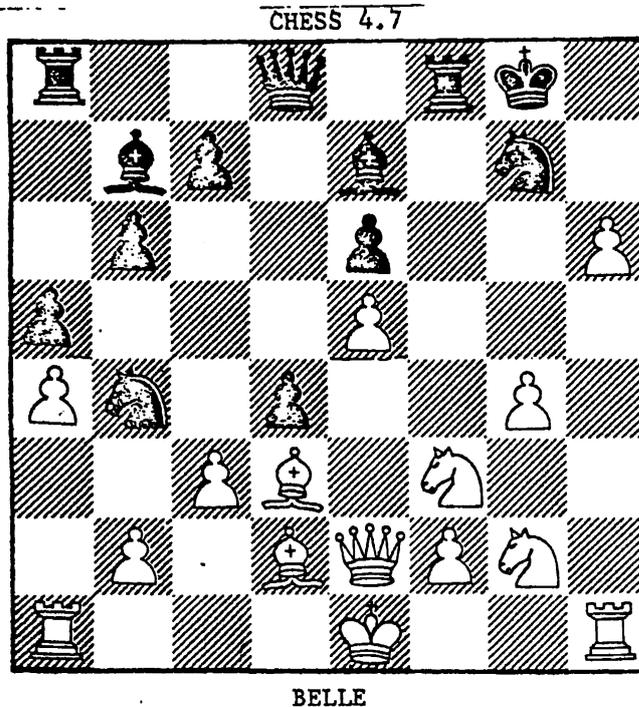
In this position CHESS 4.7 (to move) can win by playing 21...PxP! for example 22 B-R7ch KxB 23 PxNch KxP 24 B-R6ch K-N1 25 BxR QxB, threatening 26...BxN as well as 26...B-R3. Instead, Black chose 21...NxBch?? and after 22 QxN PxP 23 Q-N6 PxBch 24 NxQP, White has a won game. The reason that CHESS 4.7 went into this variation is that after 24 NxQP it evaluates the position because it considers the position to be quiescent - the 6-ply search beginning with 21... NxBch is not examined any further.

For many years I have been advocating the use of a third criterion for deciding when to consider a position worthy of deeper search. In addition to looking at all checks and captures I feel that programs should examine direct threats. In this case CHESS 4.7 ought to have realised that in its "quiescent" position White had a devastating threat. Had it done so, CHESS 4.7 would have avoided the move 21...NxBch and almost certainly found 21...PxP.