

## TABLE OF CONTENTS

Table of contents .....	1
Modern Times (I.S. Herschberg and H.J. van den Herik) .....	1
An Improvement to the Scout Tree-Search Algorithm (A. Reinefeld) .....	4
Computer Chess: Trick or Treat? (H.J. van den Herik and J. de Jong-Gierveld) .....	15
Third World Microcomputer-Chess Championship (B. Mittman & L. Lindner).	23
Fourth World Computer-Chess Championship (B. Mittman and K. Thompson) .	28
Reviews (T.A. Marsland) .....	46
News, Information, Tournaments and Reports .....	49
ICCA Triennial Meeting .....	49
Ringling out the old, ringling in the new (M. Newborn) .....	52
1983 United States Open and Fredkin Incentive Match (K. Thompson) .....	55
The Conference on Advances in Computer Chess 4 (London) .....	59
Make Sure the Journal Reaches You .....	60

## MODERN TIMES

"Modern Times" enjoyed a vogue as a with-it phrase ever since Chaplin produced his movie in 1936. The phrase may be obsolete, the notion is not. Automation, in Chaplin's view, relegated the human being to a secondary position, at least that is what the immortal Charley eloquently and silently suggested. Will automation relegate the human chess-player to the role of an also-ran?

It is not an editorial's task to answer such questions: merely to raise them should suffice. We know that our readership is firmly divided into believers and sceptics: some see the chip challenging the world champion around the turn of the century, some will not have it happen till Kingdom come, while some even believe that 2001 is not a motion picture but a very pessimistic estimate of the year when the chips will be mating us or even ultimating us.

Again, it is not for us to sit in judgement on these conflicting views. Rather, we should like to draw attention to the dizzying rate of evolution in our own modern times, pointing out a few of the straws in the wind of change.

First, who would have believed it if he had not received the news on his terminal (network facilities provided by you know who)? Belle has been dethroned... True, the opposition was arrayed against her, if you will pardon our pun. True, too, that a tournament is no more than a snapshot of a battle which itself is no more than just one phase in a conflict. Whence doubts spring: was her defeat not a matter of bad luck, of her peevish mood, of her opponents' playing better than they deserved to do? Again: no answers. But the very fact that such doubts arise, that such questions appear meaningful is in itself a sign of maturity of computer chess: weren't the same points raised when the human Euwe played the all too human Alekhine in 1935?

So let us not mourn her defeat: it need not be final. Rather, let us praise programs of old and the fathers that begat them. Ken Thompson is assured his niche in history.

Even more portentous a sign of the times: we have been told on good authority that it is right that there should be factions among us. But it is rare that a schism in computer chess reaches the national press. And wasn't it in the Washington Post that Paula Span perceptively remarked that by the witness of this tournament, our world is now riven by the schism about the very nice point of whether the computer chess champion should play like the computer he is or like the human player he hopes to beat?

Signs and wonders abound. How but as a sign are we to read that a first token victory has been gained by the National Association for the Advancement of Chess Programs (NAACP)? Haven't we read recently that Belle has been admitted to the august ranks of the national masters in spite of being a mere program and, admittedly, with a very obvious mention of her essential non-humanity?

More seriously, hasn't computer chess research recently been seen to imply at least the inception of a beginning of a diffident proposal to change the rules of chess as played in the preserve of human beings? The facts of the matter: there is a White King, escorted by his two Bishops, striving to administer the *coup de grâce* to Black who, appropriately, has nothing but a knight to support him. It has recently become known that a theory dating from the 1850s is no longer tenable. This theory seemed to indicate that in

certain positions Black could stand his ground indefinitely. That theory has now been exploded by patient research that would have been impossible but for computers and the data bases they allow to generate. It is now proven wisdom that Black's position is irremediably lost. However, the loss may not become apparent until the 66th or 67th move, so allowing Black to evade his fate by claiming a draw under the 50-move rule. And isn't that unfair in the light of our new knowledge? So, with a diffidence entirely proper, Roycroft is now proposing to double the numeral in the 50-move rule.

In our view, this is one more straw in the wind of change generated by the collision of computer chess with that of humans or, dare one say, by the clash of two high-pressure areas?

To round off an editorial which may seem overlong in proportion to the few months' events it covers: Alexander King records 'May you live in interesting times' as a Chinese curse. Aficionados of computer chess are aware of living in such interesting times, except that most of us will find them not a curse but a blessing.

Bob Herschberg and Jaap van den Herik

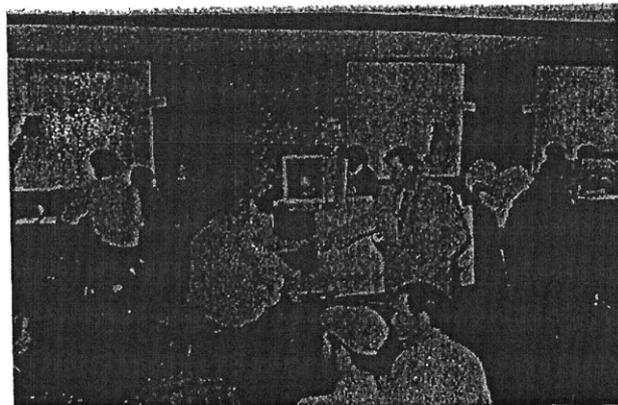


Photo by TF.

David Welsh congratulates Ken Thompson and Joe Condon after handing over a certificate declaring Belle to be the first non-human national US Master.

The photographs printed in this issue are by courtesy of Tom Fürstenberg (TF), Roger Hünen (RH), Laszlo Lindner (LL) and Ben Mittman (BM).