

## TABLE OF CONTENTS

Table of Contents	189
Breakage and Seepage (I.S. Herschberg and H.J. van den Herik)	189
Tutoring Strategies in Game-Tree Search (H. Iida, K. Handa and J. Uiterwijk)	191
Quantification of Search-Extension Benefits (D.F. Beal and M.C. Smith)	205
Notes:	219
Comments on Barth's Article Combining Knowledge and Search to Yield Infallible	
Endgame Programs (S.J. Edwards)	219
The KPKP Endgame: An Amplification (W. Barth)	225
Articles Published Elsewhere:	226
How to Use Limited Memory in Heuristic Search	
(H. Kaindl, G. Kainz, A. Leeb and H. Smetana)	226
Reviews:	227
Proceedings of the Game Programming Workshop in Japan '95 (J. Uiterwijk and H. Iida)	227
Schach am PC (I.S. Herschberg and H.J. van den Herik)	230
Der Schachcomputerkatalog (I.S. Herschberg and H.J. van den Herik)	231
Information for Contributors	232
News, Information, Tournaments and Reports:	233
The 13 <sup>th</sup> World Microcomputer-Chess Championship	
Report on the 13 <sup>th</sup> World Microcomputer-Chess Championship (U. Lorenz)	233
Results and Selected Games (R. Feldmann)	236
The 15 <sup>th</sup> Dutch Computer-Chess Championship (H. Weijer and Th. van der Storm)	245
The ACM Computer-Chess Challenge (M. Newborn)	248
The ACM Computer-Chess Workshop (Philadelphia, Penn.) (M. Newborn)	248
The Sixth Harvard Cup Human versus Computer Chess Challenge (C. Chabris)	249
Calendar of Computer-Games Events 1995/1996	250
ICCA Journal Referees in 1995 (The Editorial Board)	250
Second Call for Papers: Advances in Computer Chess 8 (Maastricht, The Netherlands)	251
The Swedish Rating List (T. Karlsson and G. Grotting)	252
Tablebase of Contents, Continued (J. Uiterwijk)	253
Correspondence:	255
An Appeal (I. Botvinnik)	255
Make Sure the Journal Reaches You	256

## BREAKAGE AND SEEPAGE

Somewhere in Holland, there is a statue to Hans Brinker. Brave Hans, the legend goes, put his finger into the dyke (a dam to the Dutch) and kept it there overnight, thus stopping the waters from breaking through into the polder. Not only is the figure of Hans purely fictitious, the legend goes against physics, hydrology and common sense.

Physics dictate that the threat to a dam is not from a hole that can be plugged by a boy's finger. Rather, outside pressure causes the inimical waters to seep through and under the dam, inflicting much more damage by seepage than imaginatively could be caused by a finger-sized breach.

Yet the statue is there for the benefit of tourists, while the steady work, maintained over the centuries by engineers to tame the seepage goes unsung. The moral is of course that hydrological achievement is not the work of a mythical individual who reaps the intoxicating benefits of the headlines, but of plodding members of the community who, if they write at all, are quite content with dull reports in the literature of their profession.

Let us apply the lesson to our own field: of course, it is newsworthy that next February Garry Kasparov is to play DEEP BLUE. The kitty is commensurate with the estimated impact of the event and we do not blame

anybody who is impressed by half a million dollars in prize money. Editorially we may be forgiven, a slight smile: was not part of the reason for such largesse in the prizes be the desire to persuade the ordinary citizen that there must be something in it, otherwise hard-nosed companies would not make so many good greenbacks available.

Regular readers of our Journal will refuse to see this match, whatever its outcome, as a breakthrough though it will be labelled as a very public piece of breaking through a dam of opposition for computer chess.

We are amused, but not impressed. To us, this pretended act of breakage is far overshadowed by the quiet seepage, the oozing of ideas, the percolation of techniques, in short, the seepage which these pages have witnessed for over a dozen years. In this seepage, it was shown very acutely that not all new ideas had the future that was confidently expected for them by their originators. Let us, without blushing, quote some examples. The B\* algorithm fizzled out, as did the singular-extensions technique. By way of contrast, transposition tables and the null-move algorithm *did* prove their mettle.

Recording the successes and failures, however, is only secondary to our argument. Our main assertion is that, owing to the seepage which would never make nation-wide headlines, the quality of programs has improved continuously – and when we say continuously we indeed mean by imperceptible stages.

Due to seepage, embodied in this Journal and others or even merely secretively incorporated into actual playing programs, all previous estimates of computer playing strengths have been made obsolete.

A few years ago, it was estimated that only 2,000 players in the world could consistently outdo the *best* of the programs the industry had to offer. Reviewing recent results, Paderborn and Hong Kong among them, we challenge our readers to revise this estimate. How many players, they believe, would consistently outdo a good program on a well-equipped but otherwise unexceptional PC? A drastic downward revision will be in order.

In our view, the overall improvement with the march of time of consistently good programs on modest equipment is far more telling in favour of the maturity of computer chess than any spectacular result that

Like Snow upon the Desert's dusty Face,

Lighting a little hour or two – is gone.

Bob Herschberg  
Jaap van den Herik